IMPORTANT NOTICE

THIS OFFERING MEMORANDUM AND THE OFFERING ARE AVAILABLE ONLY TO INVESTORS WHO ARE (1) QUALIFIED INSTITUTIONAL BUYERS (*QIBS*) AS DEFINED IN RULE 144A IN RELIANCE ON THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT OF 1933 AS AMENDED (*THE SECURITIES ACT*) PROVIDED BY RULE 144A THEREUNDER OR (2) NON-U.S. PERSONS OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN COMPLIANCE WITH REGULATION S UNDER THE SECURITIES ACT AND, IF INVESTORS ARE RESIDENT IN A MEMBER STATE OF THE EUROPEAN ECONOMIC AREA, NOT RETAIL INVESTORS (AS DEFINED BELOW).

IMPORTANT: You must read the following disclaimer before continuing. The following disclaimer applies to the offering memorandum following this notice. You are advised to read this disclaimer carefully before accessing, reading or making any other use of the offering memorandum. In accessing the offering memorandum, you agree to be bound by the following terms and conditions, including any modifications to them from time to time, each time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OR SOLICITATION OF SECURITIES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. ANY SECURITIES TO BE ISSUED HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE SECURITIES ACT, OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION OF THE UNITED STATES AND MAY NOT BE OFFERED OR SOLD IN THE UNITED STATES EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS.

YOU ARE NOT AUTHORIZED TO AND YOU MAY NOT FORWARD OR DELIVER THE ATTACHED OFFERING MEMORANDUM, ELECTRONICALLY OR OTHERWISE, TO ANY OTHER PERSON OR REPRODUCE SUCH OFFERING MEMORANDUM IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT AND THE ATTACHED OFFERING MEMORANDUM IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS.

THE TERMS OF THE ISSUE OF THE NOTES DESCRIBED IN THE ATTACHED OFFERING MEMORANDUM ARE NOT YET FINAL AND ARE SUBJECT TO UPDATING, REVIEW, FURTHER NEGOTIATION, AMENDMENT, VERIFICATION AND COMPLETION.

THE ATTACHED OFFERING MEMORANDUM DOES NOT CONSTITUTE OR FORM PART OF ANY OFFER TO SELL, OR ANY INVITATION OR SOLICITATION OF AN OFFER TO BUY, SUCH NOTES, NOR SHALL IT (OR ANY PART OF IT), OR THE FACT OF ITS DISTRIBUTION, FORM THE BASIS OF OR BE RELIED ON OR USED IN CONNECTION WITH ANY CONTRACT, OFFER OR SOLICITATION.

CONFIRMATION OF YOUR REPRESENTATION: In order to be able to view the attached offering memorandum or make an investment decision with respect to the securities, investors must be (1) QIBs or (2) non-U.S. persons outside the United States (and, if resident in a Member State of the European Economic Area, not retail investors). The offering memorandum is being sent at your request and by accepting the e-mail and accessing the offering memorandum, you shall be deemed to have represented to us that (1) you and any customers you represent are (a) QIBs or (b) non-U.S. persons outside the United States in accordance with Regulation S under the Securities Act and that the e-mail address to which the offering memorandum has been delivered is not located in the United States, its territories, its possessions and other areas subject to its jurisdiction; and its possessions include Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Wake Island and the Northern Mariana Islands, (and, if you are a resident in a Member State of the European Economic Area, you are not a retail investor) and (2) you consent to delivery of the offering memorandum and any amendments or supplements thereto by electronic transmission.

Prospective purchasers are hereby notified that the seller of the securities may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A.

You are reminded that the offering memorandum has been delivered to you on the basis that you are a person into whose possession the offering memorandum may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not nor are you authorized to deliver this document, electronically or otherwise, to any other person. If you receive this document by e-mail, you should not reply by e-mail to this announcement. Any reply e-mail communications, including those you generate by using the "Reply" function on your e-mail software, will be ignored or rejected. If you receive

this document by e-mail, your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. No action has been or will be taken in any jurisdiction by the initial purchasers, the Issuer or the Guarantors (each as defined in the offering memorandum) that would, or is intended to, permit a public offering of the securities, or possession or distribution of the offering memorandum (in preliminary, proof or final form) or any other offering or publicity material relating to the securities, in any country or jurisdiction where action for that purpose is required. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the initial purchasers or any affiliate of the initial purchasers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the initial purchasers or such affiliate on behalf of the Issuer in such jurisdiction.

The offering memorandum is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the ***Order***), (ii) are persons falling within Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Order, (iii) are outside the United Kingdom or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of any Notes may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as ***relevant persons***). The offering memorandum is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which the offering memorandum relates is available only to relevant persons and will be engaged in only with relevant persons.

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“EEA”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, “MiFID II”); or (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the “Insurance Distribution Directive”), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the “Prospectus Regulation”). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the “PRIIPS Regulation”) for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering, selling or distributing the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPS Regulation. This offering memorandum has been prepared on the basis that any offer of Notes in any Member State of the EEA will be made pursuant to an exemption under the Prospectus Regulation from the requirement to publish a prospectus for offers of the Notes. This offering memorandum is not a prospectus for the purposes of the Prospectus Regulation.

The attached offering memorandum has been sent to you in an electronic format. You are reminded that documents transmitted in an electronic format may be altered or changed during the process of transmission and consequently none of the Issuer, the Guarantors, the initial purchasers, the Trustee and their respective affiliates, directors, officers, employees, representatives and agents or any other person controlling the Issuer, the Guarantors, the initial purchasers, the Trustee or any of their respective affiliates accepts any liability or responsibility whatsoever in respect of any discrepancies between the document distributed to you in electronic format and the hard-copy version.

€905,000,000 1.625% Senior Secured Notes due 2025
€770,000,000 2.250% Senior Secured Notes due 2027

GRIFOLS

1.625% Senior Secured Notes due 2025
2.250% Senior Secured Notes due 2027

The Issuer:

- Grifols, S.A. a company (*sociedad anónima*) organized under the laws of Spain, is one of the leading global specialty pharmaceutical companies developing, manufacturing and distributing a broad range of biological medicines derived from blood plasma.

The Offering:

- €905,000,000 aggregate principal amount of its 1.625% senior secured notes due 2025 (the "2025 notes")
- €770,000,000 aggregate principal amount of its 2.250% Senior Secured Notes due 2027 (the "2027 Notes" and together with the 2025 Notes, the "Notes" and each a separate "series" of Notes).
- Use of Proceeds: to refinance a portion of the Issuer's existing term loan obligations and pay related fees and expenses.
- This offering is conditioned upon the Issuer and the Guarantors entering into the credit facilities documentation in connection with the syndication of the New Credit Facilities (as defined herein).

The Senior Secured Notes

- 2025 Notes Interest Rate: 1.625%
- 2027 Notes Interest Rate: 2.250%
- 2025 Notes Interest Payment Dates: The 2025 Notes will pay interest semi-annually in cash in arrears on February 15 and August 15 of each year, beginning on February 15, 2020.
- 2027 Notes Interest Payment Dates: The 2027 Notes will pay interest semi-annually in cash in arrears on May 15 and November 15 of each year, beginning on May 15, 2020.
- 2025 Notes Maturity: The 2025 Notes will mature on February 15, 2025.
- 2027 Notes Maturity: The 2027 Notes will mature on November 15, 2027.
- Guarantors: with certain exceptions, all of our existing and future restricted subsidiaries of Grifols, S.A. that are guarantors and/or co-borrowers under the New Credit Facilities will unconditionally guarantee the Notes on a senior secured basis. The Guarantees may be released in certain circumstances. See "Description of Notes".
- Collateral: On or about the Issue Date (as defined herein), the Notes will be secured by a perfected first priority security interest (subject to permitted liens) in all of the tangible and intangible assets of the domestic Guarantors and plasma inventory of Grifols Worldwide Operations Limited and pledges of equity of certain subsidiaries of Grifols, S.A. (subject to certain exclusions and limitations). The security interests in the Collateral may be released under certain circumstances. Subject to the terms of the Indenture governing the Notes and the Intercreditor Agreement, the Collateral may be pledged to secure future indebtedness. See "Description of Notes".
- Ranking: The Notes and the Guarantees will rank pari passu in right of payment with any existing and future indebtedness of the Issuer or the relevant Guarantor that is not expressly subordinated in right of payment to the Notes or the Guarantees, as applicable, including debt incurred under the New Revolving Credit Facility and the New Term Loan Facilities (each as defined herein), and will rank senior in right of payment to any existing and future debt that is expressly subordinated in right of payment. The Notes and the Guarantees will be effectively subordinated to all of the existing and future indebtedness of the Issuer and the Guarantors that is secured by property or assets that do not also secure the Notes and the Guarantees, to the extent of the value of such property and assets securing such indebtedness. The Notes and the Guarantees will be structurally subordinated to all existing and future indebtedness and other liabilities (including trade payables) of subsidiaries that do not provide Guarantees.
- 2025 Notes Optional Redemption: At any time prior to February 15, 2022 the Issuer will be entitled, at its option, to redeem all or a portion of the 2025 Notes at a redemption price equal to 100% of the principal amount of such 2025 Notes, plus accrued and unpaid interest and additional amounts, if any, plus a "make-whole" premium, as described in this Offering Memorandum. Additionally, we may redeem the 2025 Notes, in whole or in part, at any time on and after February 15, 2022 at the redemption prices set forth under "Description of Notes—Optional Redemption". Prior to February 15, 2022 the Issuer may redeem on one or more occasions up to 40% of the original aggregate principal amount of the 2025 Notes (including any Additional Notes (as defined herein) using the net proceeds from certain equity offerings at a redemption price equal to 101.625% of the principal amount thereof, plus accrued and unpaid interest and additional amounts, if any, to the date of redemption. See "Description of Notes—Optional Redemption".
- 2027 Notes Optional Redemption: At any time prior to November 15, 2022 the Issuer will be entitled, at its option, to redeem all or a portion of the 2027 Notes at a redemption price equal to 100% of the principal amount of such 2027 Notes, plus accrued and unpaid interest and additional amounts, if any, plus a "make-whole" premium, as described in this Offering Memorandum. Additionally, we may redeem the 2027 Notes, in whole or in part, at any time on and after November 15, 2022 at the redemption prices set forth under "Description of Notes—Optional Redemption". Prior to November 15, 2022 the Issuer may redeem on one or more occasions up to 40% of the original aggregate principal amount of the 2027 Notes (including any Additional Notes (as defined herein)) using the net proceeds from certain equity offerings at a redemption price equal to 102.250% of the principal amount thereof, plus accrued and unpaid interest and additional amounts, if any, to the date of redemption. See "Description of Notes—Optional Redemption".
- The Notes of either series may be optionally redeemed in full or in part before the Notes of the other series are optionally redeemed in full (or at all).
- Tax Redemption: In the event of certain developments affecting taxation, the Issuer may redeem either or both series of Notes in whole, but not in part, at any time, at a redemption price of 100% of the principal amount, plus accrued and unpaid interest, if any, and additional amounts, if any, to the date of redemption. See "Description of Notes—Redemption Upon Changes in Withholding Taxes."
- Change of Control: Upon the occurrence of certain defined events constituting a Change of Control or upon certain asset sales, each holder of Notes of either series may require the Issuer to repurchase all or a portion of the Notes at the purchase prices set forth in this Offering Memorandum. See "Description of Notes—Certain Covenants—Change of Control."
- Form: The Notes will be issued only in registered form in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof.

Investing in the Notes involves risks that are described in the "Risk Factors" section beginning on page 28 of this offering memorandum.

Currently, there is no public market for the Notes. This offering memorandum comprises "Listing Particulars" for the purpose of the application to the Irish Stock Exchange plc, trading as Euronext Dublin ("Euronext Dublin"), for the listing of the Notes. Application has been made to Euronext Dublin for the approval of these "Listing Particulars." Application has also been made to Euronext Dublin for the Notes to be admitted to the Official List and to be traded on the Global Exchange Market of Euronext Dublin. The Global Exchange Market is not a regulated market for the purposes of Regulation (EU) No 600/2014. There is no assurance that the Notes will be listed on the Official List of Euronext Dublin and admitted to be traded on the Global Exchange Market of Euronext Dublin, and we cannot assure you that an active trading market for the Notes will develop. This offering memorandum does not constitute a prospectus for the purposes of Regulation (EU) No 2017/1129 (as amended), or the Prospectus Regulation. The Issuer is not offering the Notes in any jurisdiction in circumstances that would require a prospectus to be prepared pursuant to the Prospectus Regulation.

2025 Notes Offering Price: 100.000% plus accrued interest, if any, from November 15, 2019.
2027 Notes Offering Price: 100.000% plus accrued interest, if any, from November 15, 2019

The Notes and the Guarantees have not been and will not be registered under the U.S. Securities Act of 1933, as amended, or the Securities Act, or the securities laws of any other jurisdiction. The initial purchasers named below are offering the Notes only to qualified institutional buyers in the United States under Rule 144A under the Securities Act and to non-U.S. persons outside the United States under Regulation S. Prospective purchasers that are qualified institutional buyers are hereby notified that the seller of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. See "Notice to Investors" for additional information about eligible offerees and transfer restrictions.

We expect that the Notes will be made ready for delivery in book-entry form through Euroclear Bank SA/NV or Euroclear, and Clearstream Banking, *société anonyme*, or Clearstream, on or about November 15, 2019 (the "Issue Date"). See "Book-Entry; Delivery and Form".

Joint Bookrunning Managers

BofA Securities **BNP PARIBAS** **HSBC** **BBVA** **J.P. Morgan**

The date of this listing particulars is November 15, 2019

IMPORTANT INFORMATION ABOUT THIS OFFERING MEMORANDUM

This offering memorandum has been prepared by us based on information we have or have obtained from sources we believe to be reliable. Summaries of documents contained in this offering memorandum may not be complete; we will make copies of actual documents available to you upon request. The information in this offering memorandum is current only as of November 8, 2019, and our business or financial condition and other information in this offering memorandum may change after that date. You should consult your own legal, tax and business advisors regarding an investment in the Notes. Information in this offering memorandum is not legal, tax or business advice.

You should base your decision to invest in the Notes solely on information contained in this offering memorandum. Neither we nor the initial purchasers have authorized anyone to provide you with any different information. The Issuer accepts responsibility for the information contained in this offering memorandum.

Notwithstanding the foregoing, the Guarantors accept responsibility for the information relating to themselves and the information relating to the Guarantors. To the best of the knowledge of the Issuer and the Guarantors (who have taken all reasonable care to ensure that such is the case) the information contained in this offering memorandum is in accordance with the facts and does not omit anything likely to affect the import of such information.

Contact the initial purchasers with any questions concerning this offering or to obtain documents or additional information to verify the information in this offering memorandum.

In connection with this new issue of Notes, the Initial Purchasers do not act for or provide services, including providing any advice, in relation to this new issue of Notes to any person other than the Issuer. The Initial Purchasers will not regard any person other than the Issuer, including actual or prospective holders of the Notes, as their client in relation to this new issue of Notes. Accordingly, the Initial Purchasers will not be responsible to anyone other than the Issuer for providing the protections (regulatory or otherwise) afforded to their clients.

We are offering the Notes in reliance on an exemption from registration under the Securities Act, for an offer and sale of securities that does not involve a public offering. If you purchase the Notes, you will be deemed to have made certain acknowledgments, representations and warranties, as detailed under "Notice to Investors". You may be required to bear the financial risk of an investment in the Notes for an indefinite period of time. Neither we nor the initial purchasers are making an offer to sell the Notes in any jurisdiction where the offer and sale of the Notes is prohibited. We do not make any representation to you that the Notes are a legal investment for you.

Each prospective purchaser of the Notes must comply with all applicable laws and regulations in force in any jurisdiction in which it purchases, offers or sells the Notes and must obtain any consent, approval or permission required by it for the purchase, offer or sale by it of the Notes under the laws and regulations in force in any jurisdiction to which it is subject or in which it makes such purchases, offers or sales, and neither we nor the initial purchasers shall have any responsibility therefor.

Neither the U.S. Securities and Exchange Commission, or the SEC, nor any state securities commission has approved or disapproved of the Notes or determined if this offering memorandum is truthful or complete. Any representation to the contrary is a criminal offense.

We have prepared this offering memorandum solely for use in connection with the offer of the Notes to qualified institutional buyers under Rule 144A under the Securities Act and to non-U.S. persons outside the United States under Regulation S. You agree that you will hold the information contained in this offering memorandum and the transactions contemplated hereby in confidence. You may not distribute this offering memorandum to any person, other than a person retained to advise you in connection with the purchase of the Notes. We and the initial purchasers may reject any offer to purchase the Notes in whole or in part, sell less than the entire principal amount of the Notes offered hereby or allocate to any purchaser less than all of the Notes for which it has subscribed.

Application has been made to Euronext Dublin for the approval of the "Listing Particulars". Application has also been made to Euronext Dublin for the Notes to be admitted to the Official List and to be traded on the Global Exchange Market of Euronext Dublin. The Global Exchange Market is not a regulated market for the purposes of Directive 2004/39/EC. There is no assurance that the Notes will be listed on the official list of Euronext Dublin and admitted to be traded on the Global Exchange Market of Euronext Dublin, and we cannot assure you that an active trading market for the Notes will develop.

Information has been included in this offering memorandum that has been sourced from a third party. This information has been accurately reproduced, and as far as the Issuer is aware and is able to ascertain from information published by that third party, no facts have been omitted that would render the reproduced information inaccurate or misleading.

RESALE RESTRICTIONS

THESE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM AND, IN RESPECT OF THE TRANSFER AND RESALE OF THESE SECURITIES IN JURISDICTIONS OUTSIDE THE UNITED STATES, MAY BE SUBJECT TO RESTRICTIONS UNDER THE LAWS OF SUCH JURISDICTIONS. INVESTORS SHOULD BE AWARE THAT THEY MAY BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME AND THAT THEIR ABILITY TO TRANSFER INTERESTS IN THESE SECURITIES MAY BE ADVERSELY AFFECTED IF THEY OR YOU ARE IN POSSESSION OF MATERIAL NON-PUBLIC INFORMATION CONCERNING THE BUSINESS. SEE "NOTICE TO INVESTORS".

STABILIZATION

IN CONNECTION WITH THIS OFFERING, MERRIL LYNCH INTERNATIONAL (THE "*STABILIZING MANAGER*") (OR PERSONS ACTING ON BEHALF OF THE STABILIZING MANAGER) MAY OVER-ALLOT NOTES OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES DURING THE STABILIZATION PERIOD AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, STABILIZATION ACTION MAY NOT NECESSARILY OCCUR. ANY STABILIZATION ACTION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE NOTES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT IT MUST END NO LATER THAN 30 CALENDAR DAYS AFTER THE DATE ON WHICH THE ISSUER RECEIVED THE PROCEEDS OF THE ISSUE, OR NO LATER THAN 60 CALENDAR DAYS AFTER THE DATE OF ALLOTMENT OF THE NOTES, WHICHEVER IS EARLIER. ANY STABILIZATION ACTION OR OVERALLOTMENT MUST BE CONDUCTED BY THE STABILIZING MANAGER (OR A PERSON ACTING ON BEHALF OF THE STABILIZING MANAGER) IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

NOTICE TO PROSPECTIVE INVESTORS

The offering is being made in the United States in reliance upon an exemption from registration under the Securities Act for an offer and sale of the Notes and the Guarantees which does not involve a public offering. In making your purchase, you will be deemed to have made certain acknowledgments, representations and agreements. See "Notice to Investors".

This offering memorandum is being provided (1) to a limited number of United States investors that the Issuer and the Guarantors reasonably believe to be qualified institutional buyers under Rule 144A for informational use solely in connection with their consideration of the purchase of the Notes and (2) to investors outside the United States who are not U.S. persons in connection with offshore transactions in compliance with Regulation S. The Notes and the Guarantees described in this offering memorandum have not been registered with, recommended by or approved by the SEC, any state securities commission in the United States or any other securities commission or regulatory authority, nor has the SEC, any state securities commission in the United States or any such securities commission or authority passed upon the accuracy or adequacy of this offering memorandum. Any representation to the contrary is a criminal offense.

NOTICE TO INVESTORS IN SWITZERLAND

This offering memorandum does not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations and the Notes will not be listed on the SIX Swiss Exchange. Therefore, this offering memorandum may not comply with the disclosure standards of the listing rules (including any additional listing rules or prospectus schemes) of the SIX Swiss Exchange. Accordingly, the Notes may not be offered to the public in or from Switzerland, but only to a selected and limited circle of

investors who do not subscribe to the Notes with a view to distribution. Any such investors will be individually approached by the initial purchasers from time to time.

NOTICE TO INVESTORS IN THE EUROPEAN ECONOMIC AREA

Prohibition of Sales to EEA Retail Investors

The Notes are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the "Prospectus Regulation"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering, selling or distributing the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPS Regulation. This offering memorandum has been prepared on the basis that any offer of Notes in any Member State of the EEA will be made pursuant to an exemption under the Prospectus Regulation from the requirement to publish a prospectus for offers of the Notes. This offering memorandum is not a prospectus for the purposes of the Prospectus Regulation.

MiFID II Product Governance/Professional Investors and ECPs Only Target Market

Solely for the purposes of each manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in MiFID II; and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "distributor") should take into consideration the manufacturers' target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturers' target market assessment) and determining appropriate distribution channels.

NOTICE TO INVESTORS IN THE UNITED KINGDOM

In the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied on in the United Kingdom by persons who are not relevant persons. In the United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons.

NOTICE TO INVESTORS IN IRELAND

The Notes may not be offered, sold, placed or underwritten in Ireland, otherwise than in conformity with the provisions of:

(i) Regulation (EU) 2017/1129 (the Prospectus Regulation), Commission Delegated Regulation (EU) 2019/980 (PR Regulation), Commission Delegated Regulation (EU) 2019/979 (RTS Regulation) and any Central Bank of Ireland ("Central Bank") rules issued and / or in force pursuant to Section 1363 of the Companies Act 2014 (as amended) (the "Companies Act");

(ii) the Companies Act;

(iii) the European Union (Markets in Financial Instruments) Regulations 2017 (as amended) and it will conduct itself in accordance with any rules or codes of conduct and any conditions or requirements, or any other enactment, imposed or approved by the Central Bank;

(iv) Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse, the European Union (Market Abuse) Regulations 2016 and any Central Bank rules issued and / or in force pursuant to Section 1370 of the Companies Act, and will assist the Issuer in complying with its obligations thereunder;

(v) Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs); and

(vi) the Central Bank Acts 1942 to 2018 (as amended) and any codes of conduct rules made under Section 117(1) of the Central Bank Act 1989.

NOTICE TO INVESTORS IN ITALY

The offering has not been cleared by the *Commissione Nazionale per le Societ'a e la Borsa* ("**CONSOB**") (the Italian securities exchange commission) pursuant to Italian securities legislation and will not be subject to formal review by CONSOB. Accordingly, no Notes may be offered, sold or delivered, directly or indirectly nor may copies of this offering memorandum or of any other document relating to the Notes be distributed in the Republic of Italy, except (a) to qualified investors (*investitori qualificati*) as defined in Article 35, first paragraph, letter (d) of CONSOB Regulation No. 20307 of February 15, 2018, as amended ("**Regulation 20307**"), pursuant to Article 34-*ter*, first paragraph letter (b) of CONSOB Regulation No. 11971 of May 14, 1999, as amended ("**Regulation 11971**"), implementing Article 100 of Legislative Decree No. 58 of February 24, 1998, as amended (the "**Italian Financial Act**"); and (b) in any other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Italian Financial Act and the implemented CONSOB regulations, including Regulation 11971.

For the purposes of this provision, the expression "**offer of Notes to the public**" in Italy means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, including the placement through authorized intermediaries. Any such offer, sale or delivery of the Notes or distribution of copies of this offering memorandum or any other document relating to the Notes in the Republic of Italy must be in compliance with the selling Restrictions under (a) and (b) above and must be:

(i) made by *soggetti abilitati* (including investment firms, banks or financial intermediaries, as defined by Article 1, first paragraph, letter r), of the Italian Financial Act), to the extent duly authorized to engage in the placement or underwriting or purchase of financial instruments in the Republic of Italy in accordance with the relevant provisions of the Italian Financial Act, Regulation 20307, as amended, Italian Legislative Decree No. 385 of September 1, 1993, as amended (the "**Italian Banking Act**"), Regulation 11971 and any other applicable laws and regulations;

(ii) in compliance with all relevant Italian securities, tax, exchange control and any other applicable laws and regulations and any other applicable requirement or limitation that may be imposed from time to time by CONSOB, the Bank of Italy (including, the reporting requirements, where applicable, pursuant to Article 129 of the Italian Banking Act and the implementing guidelines of the Bank of Italy, as amended from time to time) or any other relevant Italian competent authorities; and

(iii) in compliance with any other applicable laws and regulations or requirement imposed by CONSOB or the Bank of Italy or any other Italian authority.

Any investor purchasing the Notes is solely responsible for ensuring that any offer, sale, delivery or resale of the Notes by such investor occurs in compliance with applicable Italian laws and regulations.

NOTICE TO PROSPECTIVE INVESTORS IN CANADA

The Notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the Notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser

within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the initial purchasers are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

NOTICE TO INVESTORS IN SPAIN

This offering memorandum has not been registered with the *Comisión Nacional del Mercado de Valores*, or the CNMV, and therefore the Notes may not be offered or sold or distributed in Spain except in circumstances which do not qualify as a public offer of securities in Spain in accordance with article 35 of the revised Securities Market Act (*Real Decreto Legislativo 4/2015, de 23 de octubre, por el que se aprueba el texto refundido de la Ley del Mercado de Valores*) as amended and restated, (the "**Securities Market Act**") or pursuant to an exemption from registration in accordance with article 41 of the Royal Decree 1310/2005 (*Real Decreto 1310/2005, de 4 de noviembre, por el que se desarrolla parcialmente la Ley 24/1988, de 28 de julio, del Mercado de Valores, en materia de admisión a negociación de valores en mercados secundarios oficiales, de ofertas públicas de venta o suscripción y del folleto exigible a tales efectos*).

NOTICE REGARDING SERVICE OF PROCESS AND ENFORCEMENT OF JUDGMENTS

Most of the directors and senior managers of the Issuer and the Guarantors are non-residents of the United States. A substantial portion of the assets of such non-resident persons and of the issuer and the guarantors are located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon such persons, the Issuer and certain of the Guarantors, or to enforce against them in U.S. courts judgments obtained in such courts predicated upon the civil liability provisions of the U.S. federal securities laws. The Issuer and the Guarantors have been advised by counsel that there is doubt as to the enforceability in Ireland and in Spain in original actions, or in actions for enforcement of judgments of U.S. courts, of liabilities predicated solely upon the U.S. federal securities laws.

NON-IFRS FINANCIAL MEASURES

EBITDA, Published EBITDA and Adjusted EBITDA

EBITDA and the ratios related thereto, as presented in this offering memorandum, are supplemental measures of our performance and our ability to service debt that are not required by, or presented in accordance with, IFRS-EU (as defined below). They are not measurements of our financial performance under IFRS-EU and should not be considered as alternatives to net income or any other performance measures derived in accordance with IFRS-EU or as alternatives to cash flow from operating activities as measures of our liquidity.

Our measurement of EBITDA and the ratios related thereto may not be comparable to similarly titled measures of other companies and is not a measure of performance calculated in accordance with IFRS-EU. We have included information concerning EBITDA and the ratios related thereto in this offering memorandum because we believe that such information is used by certain investors as one measure of a company's historical ability to service debt. We believe these measures are frequently used by securities analysts, investors and other interested parties in the evaluation of high yield issuers, many of which present EBITDA and the ratios related thereto when reporting their results. Our presentation of EBITDA and the ratios related thereto should not be construed as an inference that our future results will be unaffected by unusual or nonrecurring items.

EBITDA and the ratios related thereto has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our operating results or cash flows as reported under IFRS-EU. Some of these limitations are:

- it does not reflect our cash expenditures, or future requirements, for capital expenditures or contractual commitments;
- it does not reflect changes in, or cash requirements for, our working capital needs;

- it does not reflect the significant interest expense or the cash requirements necessary to service interest or principal payments, on our debt;
- although depreciation is a non-cash charge, the assets being depreciated will often have to be replaced in the future, and EBITDA and the ratios related thereto does not reflect any cash requirements for such replacements;
- it is not adjusted for all non-cash income or expense items that are reflected in our statements of cash flows; and
- other companies in our industry may calculate EBITDA and the ratios related thereto differently than we do, limiting its usefulness as comparative measures.

Because of these limitations, EBITDA and the ratios related thereto should not be considered as measures of discretionary cash available to us to invest in the growth of our business. We compensate for these limitations by relying primarily on our IFRS-EU results and using EBITDA and the ratios related thereto only for supplemental purposes. Please see our consolidated financial statements contained in this offering memorandum.

For a description of how EBITDA and the ratios related thereto are calculated from our net income and a reconciliation of our EBITDA and the ratios related thereto from profit after income tax from continuing operations, see "Summary—Summary Historical Consolidated Financial Data" in this offering memorandum.

Constant Currency

Net revenue variance in constant currency is determined by comparing adjusted current period figures, calculated using prior period monthly average exchange rates, to the prior period net revenue. The resulting percentage variance in constant currency is considered to be a non-IFRS-EU financial measure. Net revenue variance in constant currency calculates net revenue variance without the impact of foreign exchange fluctuations. We believe that constant currency variance is an important measure of our operations because it neutralizes foreign exchange impact and illustrates the underlying change from one year to the next. We believe that this presentation provides a useful period-over-period comparison as changes due solely to changes in exchange rates are eliminated. Net revenue variance in constant currency, as defined and presented by us, may not be comparable to similar measures reported by other companies. Net revenue variance in constant currency has limitations, particularly because the currency effects that are eliminated constitute a significant element of our net revenue and expenses and could impact our performance significantly. We do not evaluate our results and performance without considering variances in constant currency on the one hand and changes prepared in accordance with IFRS-EU on the other. We caution you to follow a similar approach by considering data regarding constant currency period-over-period revenue variance only in addition to, and not as a substitute for or superior to, other measures of financial performance prepared in accordance with IFRS-EU. We present the fluctuation derived from IFRS-EU net revenue next to the fluctuation derived from non IFRS-EU net revenue.

See below for a reconciliation of reported net revenues to net revenues in constant currency.

	2018	2017	% var		2017	2016	% var
	(in millions of euros)				(in millions of euros)		
Net Revenues	4,486.7	4,318.1	3.9%	Net Revenues	4,318.1	4,049.8	6.6%
Variation due to exchange rate effects	226.5			Variation due to exchange rate effects	25.1		
Constant Currency Net Revenues	4,713.2	4,318.1	9.2%	Constant Currency Net Revenues	4,343.2	4,049.8	7.2%

	June 30, 2019	June 30, 2018	% var
	(in millions of euros)		
Net Revenues	2,423.4	2,120.1	14.3%
Variation due to exchange rate effects	(120.0)		
Constant Currency Net Revenues	2,303.4	2,120.1	8.6%

PRESENTATION OF FINANCIAL AND OTHER INFORMATION

Financial Information

All references to "U.S. dollars", "U.S.$" or "$" are to U.S. dollars, the official currency of the United States of America. All references to "euro", "euros" or "€" are to the euro (singular) and to euros (plural), the single currency unit of the member states of the European Community that adopt or have adopted the euro as their lawful currency in accordance with the legislation of the European Community relating to Economic and Monetary Union.

Certain numerical figures set out in this offering memorandum, including financial data presented in millions or thousands and percentages describing market shares, have been subject to rounding adjustments and, as a result, the totals of the data in this offering memorandum may vary slightly from the actual arithmetic totals of such information. Percentages and amounts reflecting changes over time periods relating to financial and other data set forth in "Operational and Financial Review" are calculated using the numerical data in our consolidated financial statements or the tabular presentation of other data (subject to rounding) contained in this offering memorandum, as applicable, and not using the numerical data in the narrative description thereof.

This offering memorandum includes the English translation of the Spanish language audited consolidated annual accounts of Grifols, S.A. and its subsidiaries as of and for each of the years ended December 31, 2018, 2017 and 2016, which are referred to herein as the "consolidated financial statements". In addition, this offering memorandum also includes the English translation of the Spanish language unaudited condensed consolidated interim financial statements as of and for each of the six-month periods ended June 30, 2019 and 2018, which are referred to herein as the "consolidated interim financial statements". The consolidated financial statements of Grifols, S.A. and its subsidiaries as of and for each of the years ended December 31, 2018, 2017 and 2016 have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union ("IFRS-EU"); and the condensed consolidated interim financial statements of Grifols, S.A. and its subsidiaries as of and for each of the six-month periods ended June 30, 2019 and 2018 have been prepared in accordance with International Accounting Standard 34 (IAS 34) as adopted by the European Union.

The consolidated financial statements are prepared in accordance with International Financial Reporting Standards as adopted by the European Union or IFRS-EU. The financial statements we file annually on Form 20-F with the SEC are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Boards, or IFRS-IASB, which, for our purposes, are identical to the International Financial Reporting Standards as adopted by the European Union, or IFRS-EU. Differences arise between IFRS-IASB and IFRS-EU when an IASB approved statement has become effective, however the standard has not been adopted by the European Union, or although having been adopted has not yet become effective. We normally early adopt any EU adopted standards to minimize any potential differences in our financial statements. We are not aware of any material items between IFRS-IASB and IFRS-EU that might impact our financial statements.

The accounting policies set out in the consolidated financial statements have been consistently applied to all periods presented (other than with respect to IFRS 16, Leases). IFRS 16, Leases, issued in January 2016 by the IASB, replaces IAS 17, Leases, and related interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases for both the lessee and the lessor. For lessees, IFRS 16 eliminates the classification of leases as either operating leases or finance leases and introduces a single lessee accounting model with some exemptions for short-term and low-value leases. The lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

We have adopted IFRS 16 using the modified retrospective approach and applying a single recognition measurement approach, with the date of initial application of January 1, 2019. Under this method, the impact of the standard is calculated retrospectively. However, the cumulative effect arising from the new leasing rules is recognized in the opening balance sheet at the date of initial application. Accordingly, the comparative information presented herein for the six-month period ended June 30, 2018 or for any other historical periods presented herein has not been restated.

This Offering Memorandum presents certain select financial information for the three and nine-month periods ended September 30, 2019 and has not been audited or reviewed in accordance with any generally accepted auditing standards or verified by our independent auditors.

This Offering Memorandum includes certain of our unaudited consolidated financial information for the twelve-month period ended June 30, 2019. This information was calculated by taking the full year 2018 consolidated financial statements and subtracting our consolidated interim financial information for the six-month period ended June 30, 2018, and adding our consolidated interim financial information for the six-month period ended June 30, 2019, respectively. The unaudited consolidated financial information for the twelve-month period ended June 30, 2019 has been prepared solely for the purposes of this Offering Memorandum and is for illustrative purposes only and is not necessarily representative of our results of operations for any future period or financial condition at any future date.

Industry and Market Data

We obtained the market and competitive position data used throughout this offering memorandum from our own research, surveys or studies conducted by third parties and industry or general publications. Industry publications and surveys generally state that they have obtained information from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information. While we believe that each of these studies and publications is reliable, neither we nor the initial purchasers have independently verified such data, and neither we nor the initial purchasers make any representation as to the accuracy of such information. Similarly, we believe our internal research is reliable, but it has not been verified by any independent sources.

TRADEMARKS AND SERVICE MARKS

We own or have rights to various trademarks and trade names that we use in conjunction with the operation of our businesses including, but not limited to, Grifols®, Flebogamma®, Alphanate®, Talecris Biotherapeutics®, Gamunex®, Prolastin® and Albutein®. We own a registered design mark with a stylized "Q" that we use in connection with our Q-Coagulometer™. We pursue registration of our important service marks and trademarks and vigorously oppose infringement upon them. In this offering memorandum, we also refer to product names, trademarks, trade names and service marks that are the property of other companies. Each of the trademarks, trade names or service marks of other companies appearing in this offering memorandum belongs to its owner. The use or display of other parties' trademarks, trade names or service marks is not intended to and does not imply a relationship with, or endorsement or sponsorship by us of, the product, trademark, trade name or service mark owner, unless we otherwise expressly indicate.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This offering memorandum contains a number of forward-looking statements, including statements about our financial condition, results of operations, earnings outlook and prospects. Forward-looking statements are typically identified by words such as "may", "anticipate", "believe", "estimate", "predict", "expect", "intend", "forecast", "will", "would", "should" or the negative of such terms or other variations on such terms or comparable or similar words or expressions.

These forward-looking statements reflect, as applicable, our management's current beliefs, assumptions and expectations and are subject to a number of factors that may cause actual results to differ materially. These factors include but are not limited to:

Risks Relating to the Notes:

- our substantial leverage;
- our ability to make interest and principal payments on the Notes offered hereby and our other debt;
- our ability to generate cash;
- our ability to receive dividends and other distributions from our subsidiaries;
- the Notes and each of the Guarantees will be structurally subordinated to liabilities of our non-Guarantor subsidiaries;
- the restrictive covenants governing our New Credit Facilities and the indenture governing the Notes offered hereby;
- the potential insufficiency of Guarantees and the value of the Collateral to satisfy our obligations;

- federal and state statutes permitting courts to void the subsidiary guarantees under certain circumstances;
- bankruptcy laws limiting amounts payable to note holders;
- the lack of an active trading market in the securities;
- the restrictions on the transfers of the Notes;
- the unpredictable nature of ongoing Brexit proceedings;
- our ability to satisfy our obligations under the Notes with the value provided by the Collateral;
- the unpredictability of bankruptcy proceedings for rights of holders of the Notes in the Collateral;
- the possible depreciation of the Collateral; and
- the potential insufficiency of lien searches to reveal all liens on the Collateral.

Risks Relating to Our Business:

- the complexity of our manufacturing processes and the susceptibility of our biological intermediates to contamination;
- our need to continually monitor our products for possible unexpected side effects;
- our ability to adhere to government regulations so that we may continue to manufacture and distribute our products;
- the impact of disruptions in our supply of plasma or in the operations of our plasma collection centers;
- the impact of competing products and pricing and the actions of competitors;
- the impact of product liability claims on our business;
- our reliance on a plasma supply free of transmittable disease;
- interest rates and availability and cost of financing opportunities;
- the impact of interest rate fluctuations;
- unexpected shut-downs of our manufacturing and storage facilities or delays in opening new planned facilities;
- reliance on third parties for manufacturing of products and provision of services;
- our ability to commercialize products in development; and
- our ability to protect our intellectual property rights.

Risks Relating to the Healthcare Industry:

- recently enacted U.S. healthcare legislation, new legislation, regulatory action or legal proceedings affecting, among other things, the U.S. healthcare system, pharmaceutical pricing and reimbursement, including Medicaid, Medicare and the Public Health Service Program;
- legislation or regulations in markets outside of the United States affecting product pricing, reimbursement, access, or distribution channels;
- changes in legal requirements affecting the industries in which we operate; and
- other factors that are set forth below under the section entitled "Risk Factors".

Because these forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by these forward-looking statements. You are cautioned not to place undue reliance on these statements, which speak only as of the date of this offering memorandum. Forward-looking statements are not guarantees of future performance. They have not been reviewed by our auditors.

All written and oral forward-looking statements concerning matters addressed in this offering memorandum and attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this offering memorandum. Except as required by law, we do not assume any obligation to update any forward-looking statements after the date of this offering memorandum as a result of new information or future events or developments.

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SUMMARY

This summary highlights selected information appearing elsewhere in this offering memorandum. As a result, it is not complete and does not contain all of the information that you should consider before purchasing the Notes. You should read the following summary in conjunction with the more detailed information included herein.

As used in this offering memorandum, unless the context otherwise requires or as is otherwise indicated, all references in this document to "Grifols", "Company", "we", "us", "Issuer" and "our" refer to Grifols, S.A., a company (sociedad anónima) organized under the laws of Spain, and our consolidated subsidiaries.

Our Company

We are one of the leading global specialty pharmaceutical companies developing, manufacturing and distributing a broad range of biological medicines derived from blood plasma. These plasma derivatives are proteins found in human plasma, which, once isolated and purified, extend and enhance the lives of individuals who suffer from chronic and acute, often life threatening, conditions, such as primary and secondary immunological deficiencies, Chronic Inflammatory Demyelinating Polyneuropathy, or CIDP, A1PI deficiency and related emphysema, immune mediated ITP, Guillain Barré syndrome, Kawasaki disease, allogeneic bone marrow transplants, hemophilia A and B, von Willebrand disease, traumatic or hemorrhagic shock and severe burns. In addition, we have built a diagnostic business that focuses on researching, developing, manufacturing and marketing in vitro diagnostics products for use in clinical and blood bank laboratories. We also specialize in providing infusion solutions, nutrition products and medical devices for use in hospitals and clinics.

Our products and services are used by healthcare providers in over 100 countries to diagnose and treat patients with hemophilia, immune deficiencies, infectious diseases and a range of other medical conditions, and we have a direct presence, through the operation of commercial subsidiaries, in 30 countries.

In 2018, we believe we ranked in the top three largest producers in the plasma derivatives industry in terms of total sales globally. Additionally we believe we have a top three market position in various segments including A1PI, IVIG, Factor VIII and albumin as well as in terms of plasma collection centers and fractionation capacity.

For the year ended December 31, 2018, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €4,486.7 million, €594.4 million and €1,222.7 million, respectively, representing a Published EBITDA margin of 27.3%. For the six-month period ended June 30, 2019, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €2,423.4 million, €294.6 million and €696.8 million respectively, representing a Published EBITDA margin of 28.8%.

In March 2019, we entered into a landmark agreement with Shanghai RAAS which will considerably boost growth of our plasma derived products and diagnostic solutions in the fast growing Chinese plasma market. Shanghai RAAS is the largest blood products company in China specializing in plasma-derived products for therapeutic use in immunology, haematology and interim care. Under the agreement, subject to regulatory approval, we will acquire 26.2% of the voting and economic rights[(1)] in exchange for a contribution of 45% of the economic rights and 40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions. Following the acquisition, Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. We expect the transaction to close in the fourth quarter of 2019.

Operating Divisions

We organize our business into five divisions: Bioscience, Diagnostic, Hospital, Bio Supplies (formerly Raw Materials) and Others. These divisions also represent our operating segments:

- ***Bioscience.*** The Bioscience division includes activities relating to the manufacture of plasma derivatives for therapeutic use, including the receipt, analysis, quarantine, classification, fractionation and purification of plasma, and the sale and distribution of end products. The main plasma products we manufacture are IVIG, Factor VIII, A1PI and albumin. We also manufacture intramuscular (hyperimmune) immunoglobulins, ATIII, Factor IX and plasma thromboplastin component, or PTC.

(1) "economic rights" are defined as all rights attached to the shares except voting rights.

The Bioscience division accounted for €3,516.7 million, or 78.4%, of our total net revenues in 2018, and €1,920.1 million, or 79.2%, of our total net revenues in the six-month period ended June 30, 2019.

- ***Diagnostic.*** The Diagnostic division focuses on researching, developing, manufacturing and marketing *in vitro* diagnostics products, including analytical instruments, reagents, software and associated products for use in clinical and blood bank laboratories, covering the entire value chain from donation to transfusion. We concentrate our Diagnostic business in transfusion medicine (nucleic acid testing, immunossay and immunohematology) and specialty diagnostics such as hemostasis. The Diagnostic division's main customers are blood donation centers, clinical analysis laboratories and hospital immunohematology services. The Diagnostic division accounted for €702.3 million, or 15.6%, of our total net revenues in 2018 and €348.7 million, or 14.4%, of our total net revenues in the six-month period ended June 30, 2019.
- ***Hospital.*** The Hospital division provides services and manufactures products used by hospitals, blood banks, plasma collection centers and other healthcare systems. These products include parenteral solutions, robotics and software. It also includes products that we do not manufacture but that we market as supplementary products to those we do manufacture. The Hospital division accounted for €119.5 million, or 2.7%, of our total net revenues in 2018 and €63.4 million, or 2.6%, of our total revenue in the six-month period ended June 30, 2019.
- ***Bio Supplies.*** Since January 2017, net revenues from Bio Supplies primarily relate to all transactions of biological products for non-therapeutic use previously recorded under the Bioscience segment as well as all income derived from manufacturing agreements with Kedrion and third-party sales of Haema and Biotest US. The Bio Supplies division accounted for €167.0 million, or 3.7%, of our total net revenues in 2018 and €104.2 million, or 4.3%, of our total net revenues in the six-month period ended June 30, 2019.
- ***Others.*** Net revenues from Others primarily consists of revenue from the rendering of manufacturing services to third party companies.

Competitive Strengths

We believe our Company has a number of competitive strengths, including:

Global Company with a Diversified Revenue Base Worldwide

We are an industry leader in producing plasma-derived medicines and transfusion medicine for patients around the world, with sale of our products and services in over 100 countries through distributors and subsidiaries in 30 countries. We have an established presence in Europe and the United States, which are the two largest plasma derivatives sales regions, and we have a significant position in transfusion medicine with our NAT blood screening segment. The United States, Canada and the European Union accounted for €3,775 million, or 84.1%, of our total net revenue in 2018 and €2,069 million, or 85.4%, of our total net revenues in the six-month period ended June 30, 2019. We also have a presence in fast growing sales regions including the Asia (Malaysia, China, Thailand, Singapore, Japan, India, Hong Kong, Taiwan and Indonesia), Australia, the Middle East and Latin America (Mexico, Colombia, Argentina, Chile and Brazil). In addition, we operate 13 manufacturing facilities located in the United States, Spain, Switzerland, Ireland, Australia and Brazil.

We are a leading plasma derivatives producer globally, ranking in the top three largest producers in the industry in terms of total sales, along with Takeda and CSL Behring. We are the world's largest producer of A1PI, which is used for the treatment of A1PI deficiency related emphysema. Prolastin®/ Prolastin®-C is the leading A1PI product in the United States and Europe, where it is licensed in 15 countries. In Italy and Spain, we previously distributed Prolastin® using third parties. However we began direct distribution of Prolastin in those two countries in 2013, and began conducting clinical trials in Europe in 2013 to obtain Prolastin®-C approval. We had an estimated 66% global market share in A1PI at the end of 2018. In September 2017, the FDA approved our liquid formulation of A1PI (Prolastin® -C Liquid) as a chronic augmentation and maintenance therapy to treat emphysema related to severe hereditary A1PI deficiency. In 2018, based on our internal estimates, we had a top three market position in other segments of the plasma derivatives industry, including the largest global market share in IVIG (25% of the market), the largest global market share in Factor VIII (17% of the market) and the second largest global and U.S. market share in Albumin (18% and 33% of the market respectively). According to the latest available data, we also have a leading position in terms of plasma collection centers.

Market Leadership across Bioscience and Diagnostic Divisions

Our portfolio of IVIG and A1PI products includes Gamunex® IVIG, a ready-to-use liquid IVIG product launched in the United States and Canada in 2003. Gamunex® IVIG was the first IVIG product approved for CIDP in the United States and Canada, and through mutual recognition procedures, in 16 European countries. Gamunex® IVIG can be administered subcutaneously or intravenously. We had an estimated 66% global market share for A1P1 at the end of 2018, an estimated 35% market share in the United States for IVIG as of December 2018 and an estimated 85-90% market share of anti-rabies immunoglobulins in the United States as of December 2018.

Alphanate®, Fahndi™ and Koate®, our Factor VIII/von Willebrand factor products, are used for both the treatment of hemophilia and von Willebrand disease. We had approximately 48% market share in the in the U.S. Factor VIII market at the end of 2018.

Our albumin brands are sold globally, with an 18% market share at the end of 2018 (#2 position). In addition, we offer albumin products with reduced aluminum content that meet European regulatory requirements, making them more attractive to biotechnology companies and genetic laboratories, as well as to hospitals and physicians. Our portfolio also includes products for the treatment of tetanus, hepatitis B, Rh factor complications during childbirth, the prevention and treatment of thrombotic diseases, the prevention and control of bleeding in patients with hemophilia B and the prevention of hepatitis B reinfection of the graft in liver transplant patients.

In addition, we possess a fully vertically integrated diagnostic business model. This fully integrated Transfusion Diagnostics value chain, gives us a dominant market position and a full product portfolio in the blood screening market. Our diagnostic portfolio encompasses innovative, market leading collecting, testing for infectious diseases, typing diagnosis and transfusion transfusion medicine technology, instrumentation and equipment for Nucleic Acid Testing (NAT) and Serology blood screening

We believe that we have a significant market share of sales in NAT blood screening solutions. In addition, we have increased our sales of automated immunohematology systems and reagents to hospital transfusion and blood centers in several markets. We also continue to grow our portfolio of clinical and diagnostic products in select areas, including autoimmunity and hemostasis, and have agreements to extend the number of antigens we manufacture for use in clinical and blood bank diagnostic tests.

Large and Growing Market Outlook Supported by Strong Fundamentals

According to the MRB, the global market for biological medicines derived from human blood plasma was worth an estimated €20.6 billion in 2017, representing a 4.1% increase from 2016 and a compound annual growth rate of 10.2% from 2009 to 2017. In 2017, IVIG was the leading product in the market, accounting for 40.7% of sales in the global plasma derivatives market (excluding recombinant proteins). In recent years, most market participants have been operating at close to full capacity and according to MRB and our internal estimates, demand growth for plasma derivatives products is expected to continue. The plasma derivatives sector has experienced sustained growth over the past 20 years. Several factors, including historic consolidation and vertical integration, have contributed, and are expected to continue to contribute, to the growth of this sector, including limited supply of raw materials, a growing demand coming from developed countries as well as emerging markets improving access to healthcare, new indications and an increasing awareness and improved diagnoses among physicians of the conditions that plasma derivative products help treat.

Fully Integrated Business Model across the Entire Transfusion Value Chain

We are a vertically integrated global producer of plasma derivatives. Our activities include sourcing raw material, manufacturing various plasma derivatives products and selling and distributing the final products to healthcare providers.

Through acquisitions and openings of new plasma collection centers, we have expanded our plasma collection network to 293 centers in the United States and Europe as of June 30, 2019. Our acquisitions, including, among others, the 2011 acquisition of 67 plasma collection centers from Talecris and the 2018 acquisitions of Haema AG and Biotest US, have given us reliable access to U.S.-sourced plasma. In 2016, we purchased equity interests in the IBBI Group, including a 49.19% equity interest in IBBI, a 48.97% equity interest in Bio Blood and a 48.90% equity interest in PBS. In April 2019, we purchased the remaining 50.81% of IBBI, one of the main private and independent plasma suppliers in the United States. Following this transaction, we added 36 FDA-licensed centers (26 plasma centers and ten whole blood donation centers). In 2018, we also obtained the rights to all plasma collected at an additional 24 plasma centers in the United States from Biotest US and 35 plasma centers in Germany from Haema.

State-of-the-Art, FDA-Approved Manufacturing Facilities

We have state of the art plasma derivatives manufacturing facilities which are highly safe and efficient and that have EMA certifications and FDA licenses. Our key plasma fractionation plants are:

- **Parets del Vallès, near Barcelona, Spain**: a fractionation capacity of 5.0 million liters per year and features a unique design that separates the maintenance area from the clean areas required for the fractionation and purification procedures. This design, which was developed by us internally, minimizes the risk of contamination and reduces maintenance costs. Our currently licensed production processes for IVIG and albumin have been approved by the FDA as have the use of several intermediate pastes created as raw material.
- **Clayton (North Carolina)**: total fractionation capacity of 7.4 million liters per year and one of the world's largest fully integrated facilities for plasma-derived therapies, including plasma receiving, fractionation, purification, filling/freeze drying and packaging capabilities, as well as freezer storage, testing laboratories and a cGMP pilot plant for clinical supply manufacture. We are currently working on a new fractionation plant in Clayton which will add additional fractionation capacity of 6 million liters per year and we expect to be in operation in 2021.
- **Los Angeles (California)**: fractionation capacity of approximately 2.4 million liters per year.

The substantial investment required into facilities protects us from new competitors entering the market as the industry requires substantial yearly capex investment in order to cope with growing demand and therefore cash flow generation is dependent on the cycle of investment.

We are also increasing our purification capacity for IVIG, albumin and alpha 1.

We also believe that we are the only company providing integrated transfusion medicine solutions from donation to transfusion. Our portfolio provides us with market leading positions and full product offerings in blood screening markets. Through the acquisition from Hologic in 2017, we have enhanced our vertical integration and further promoted the development of new tests and screening routines for emerging viruses. The Hologic transaction was part of the consolidation and growth strategy envisaged for the Diagnostic division and has enabled us to continue strengthening our leadership position in transfusion medicine.

Clear Growth Strategy with Long-Term Growth supported by Global Expansion

We have a strong track record as an innovator in the industry. For example, we developed a unique fractionation design that reduces the risk of contamination and reduces maintenance costs while increasing the extraction of products per liter of plasma. We have also developed the first centrifugation unit for the automated cleaning of blood cells, In addition, we were one of the first fractionators to conduct double viral inactivation processes for Factor VIII and have designed and implemented a new process for the sterile filling of vials that reduces exposure to potential contaminants as compared to other existing processes. Further, we have developed a nanofiltration method of viral inactivation for our IVIG, AlPI, and ATIII products. As a result of our continuing investment in research and development, we believe that we are well positioned to continue as a leader in the plasma-derived therapies industry.

The Transfusion Medicine Business, formerly owned by Novartis and acquired by us in January 2014, continues to enjoy a successful history of product innovation and commercialization, and its employees possess specific expertise and core competencies in the development and manufacturing of NAT assays and blood screening systems and in the supply of antigens to immunoassay companies. The infrastructure, processes and expertise of its employees enabled it to develop a growing range of marketed products and also helped in the development of potential new products. For example, in 2012, the Transfusion Medicine Business launched the Procleix Panther System, a fully integrated and automated NAT system for blood and plasma screening, allowing small to medium sized laboratories to improve workflow and operating efficiency. The instruments are based on proprietary TMA technology, which is typically more sensitive and therefore less cumbersome than PCR technology used by our competitors. The higher sensitivity shown by this TMA technology plays a crucial role in the portion of the blood screening market collected for fractionation.

The NAT Donor Screening Unit is engaged in research, development, manufacturing and commercialization of assays and instruments based on NAT technology for transfusion and transplantation screening. NAT technology makes it possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety. Since the Hologic transaction, this business

has continued to develop new tests and screening routines for emerging viruses, strengthening our leadership position in the transfusion medicine field.

Our continued focus on international expansion and acquisitions that generate operational synergies has been demonstrated by our numerous acquisitions, including:

- **Talecris** (June 2011): a United States based producer of plasma-derived protein therapies with an established presence in the United States and Canada.
- **Progenika** (March 2013): international expansion through a 60% equity interest in Progenika (as of July 2019 our participation reached 100%), a Spanish biotechnology firm headquartered in Bilbao, with operations in the United States, Europe and the Middle East.
- **Novartis Diagnostic Business** (January 2014): further reinforced our international operations, as it expanded our global portfolio of brands, patents and licenses and gained us the Emeryville facility and commercial offices in the United States, as well as additional commercial offices in Switzerland and Hong Kong.
- **Hologic's Share of its NAT Donor Screening Unit** (January 2017): acquired our former joint-business partner's NAT Donor Screening business, including a manufacturing facility in San Diego and development rights, product licenses and access to product manufacturers.
- **26.2% equity interest in Shanghai RAAS** (March 2019): subject to regulatory approval, pursuant to the agreement entered into in March 2019, Shanghai RAAS will become our exclusive distributor of plasma-derived products and transfuscional diagnostic solutions in China. This acquisition reinforces our global expansion strategy, generating value for all of our divisions, especially Bioscience and Diagnostic Divisions; and is expected to close in the fourth quarter of 2019.

We have also demonstrated our capabilities to integrate products and technologies within our portfolio, including the following:

- **Kiro Grifols**: We acquired 50% of the voting and economic interest in the Spanish technology company that develops, manufactures and sells machinery and equipment designed to automate or control critical hospital processes in September 2014 and an additional 40% in 2017.
- **Alkahest**: We acquired 47.58% of the equity of the California biopharmaceutical company founded by leading scientists at Stanford University that demonstrated factors that in the blood of young animals were able to restore mental capabilities in old animals in March 2015.
- **IBBI**: We acquired a 49.19% equity interest in IBBI, a 48.97% equity interest in Bio Blood and a 48.90% equity interest in PBS, collectively, a group based in Memphis, Tennessee, that collects plasma for the plasma fractionation industry in April 2016. In April 2019, we purchased the remaining 50.81% equity interest in IBBI.
- **Access Biologicals**: We acquired a 49% interest in a company based in Vista, California, that collects and manufactures an extensive biological and product portfolio in January 2017.
- **Goetech**: We acquired a 51% interest in the U.S. technology firm, a company based in Denver, Colorado, that develops and distributes web and mobile based platforms of hospital pharmacies through the brand MedKeeper in January 2018.

Strong Business Model with Attractive Cash Flow Generation

Our leading scale, diversification, favorable market positioning and focus on operational efficiency have enabled us to achieve attractive historical financial performances. In the year ended December 31, 2018, we generated net revenues of €4,487 million from a global and balanced geographical footprint with €2,974.4 million, or 66.3%, coming from the United States and Canada, €800.3 million, or 17.8%, from the European Union and €712.0 million, or 15.9%, from the rest of the world. In comparison to our peers, we believe that we are the most efficient player in terms of capex efficiency, which helps our ability to generate strong and consistent cash flow and has also enabled us to invest in our operations and pursue attractive growth opportunities.

Experienced and Committed Management Team

We have an experienced and committed management team with over 30 years of industry experience on average. In accordance with our succession plan, Víctor Grifols Roura, a grandson of our founder, resigned

as Chief Executive Officer on January 1, 2017, staying on the board as non-executive Chairman. Effective the same date, Raimon Grifols Roura and Victor Grifols Deu became the co-Chief Executive Officers of the Company. Ramón Riera, a Director and the former President of the Global Commercial Division, has been associated with Grifols and our predecessor for more than 40 years. The Vice President of Finance and CFO, Alfredo Arroyo, has been associated with Grifols for 12 years. The President of U.S. Operations, Gregory Gene Rich, has been in the industry for nearly 39 years.

Our experienced and long-serving management team has a demonstrated ability to anticipate trends and successfully grow the business both organically and via acquisitions, with a focus on sustainable long term profit generation.

Strong Reputation for Safety and Reliable Services

Our philosophy is that the health of the plasma donor and the patient are the paramount considerations. We strongly believe that our safety philosophy is consistent with the business objective of generating profit. We also believe that we have a strong reputation for safety in our markets, thus making our products particularly attractive to customers. Our vertically integrated business model allows us to assure the safety and quality of our plasma derivative products through the implementation of our safety standards throughout the value chain. We have never experienced a recall of any batch of our finished biological products due to a safety risk, although in 2018 we voluntarily withdrew three lots of product. The first case was due to an error in which the adverse consequences for patients were not included in the packaging components. The other two cases were due to a reported rate of adverse drug reactions higher than usual.

We maintain rigorous safety standards that exceed those required by health authorities in Europe and the United States and actively invest in the continued improvement of our manufacturing facilities and plasma fractionation process. Measures include introducing innovative methods such as the Plasma Bottle Sampling™ system, which automatically prepares codes and labels test samples at the time of plasma donation. Additionally, we have developed a nanofiltration method of viral inactivation for our IVIG, A1PI and antithrombin III products which has further improved our health and safety standards.

We maintain standards consistent with other industry participants with regard to plasma safety, and are periodically certified by the Plasma Protein Therapeutics Association (PPTA) under the International Quality Plasma Program (IQPP) for plasma donation centers, and under the Quality Standards of Excellence, Assurance and Leadership Program (QSEAL) for fractionation plants. For example, source plasma inventory is held for not less than 60 days. Known as "inventory hold", this waiting period allows donors to return for a second donation. The results of the "hold sample" are verified against the new donation to reconfirm the absence of viruses and pathogens. We have also introduced innovative methods such as the PediGri™ On Line system, which provides full traceability of human plasma raw material throughout the plasma supply chain. This system allows the physician to track the origin of the fractionated product used on patients back to the source donor providing full traceability of plasmatic raw material throughout the plasma supply chain process. We believe we are the only player in the industry providing a tracking system for its products.

The manufacturing plants have been designed fulfilling the current GMP standards and applicable regulations for clean areas, and are designed to minimize clean areas as well as human intervention, with the objective of lowering the risk of contamination. The facilities are subject to a cleaning and sanitizing plan and to a corrective and preventive maintenance program. Periodically, we voluntarily shut down all of our manufacturing facilities to perform maintenance work, expansion projects and other capital investments. Our manufacturing facilities have never been shut down because of regulatory noncompliance while under our operation. We believe that our voluntary shutdown procedure lowers the risk of any mandatory shutdown.

As part of our commitment to quality, we provide ongoing training for our plasma professionals through the creation of the Grifols Academy (the "Academy"), which offers cutting edge training on the processes of plasma collection, handling, storage and testing. The Academy also provides a deeper understanding of human health, ethics and science as they relate to plasma collection and plasma products.

Furthermore, we require our management to adhere to a formal code of ethical conduct. By signing the formal code of ethical conduct, a manager commits to making our products the safest and most effective in the market. The code imposes an obligation on each manager to report any ethical concerns directly to the Board. Our high safety standards and reliability have helped us establish and maintain successful long term

relationships with key customers and physicians worldwide. We believe that the strength of our reputation positions us favorably as we continue to expand our business.

Our Business Strategy

We believe that the breadth and quality of our products makes us one of the world's leading providers of plasma derivative products. Our objective is to consolidate and expand this leadership position by employing the following strategies:

Increase Collection of Source Plasma and Fractionation Capacity

United States plasma is the principal raw material for our plasma derivatives products and it can be used in plasma derivative products sold in most markets. Our plasma is obtained mainly from the United States through our network of 220 FDA licensed plasma collection centers in the United States as of December 31, 2018. We believe that a large network of plasma collection centers is the best approach to secure access to raw materials. Historically, to achieve this goal, we have strategically targeted and acquired collection centers, including 67 centers from our acquisition of Talecris in 2011. Since the acquisition of Talecris, our strategy has been to expand and relocate our existing centers in order to collect more plasma more efficiently. In June 2018, we completed the acquisition of Haema, a German based pharmaceutical company that owns 35 collection centers throughout Germany. In August 2018, we completed the acquisition of Biotest US, a U.S. based pharmaceutical company that owns 24 plasma collection centers. In December 2018, we sold our 100% equity interest in Haema and Biotest US to Scranton Enterprises B.V. This acquisition and subsequent sale allowed us to reinforce our financial structure and through our 30-year Plasma Supply Agreement in place with Haema and Biotest US, we continue to operate the companies' plasma centers. We intend to continue to focus on expanding our collection platform and relocating our existing centers and have previously announced that we plan to reach 325 approved plasma collection centers by 2023 globally.

We are undertaking an investment plan that involves among other investments, cumulative industrial capital investments to expand the manufacturing capacities of the Bioscience division of approximately €400 million from 2019 through 2020 as part of our €1.4 billion 2018-2022 capital expenditure plan. We are currently working on a new fractionation plant in Clayton with an incremental 6 million liters capacity per year, which we expect will be in operation in 2021. Under our capacity expansion program, we are currently undergoing an increase of our fractionation capacity from 14.8 million liters per year to 19 million liters per year by 2021.

Although the increase in collection of source plasma and fractionation capacity has put downward pressure on margins, the opening of new facilities is now materially complete and we now expect a positive impact on Published EBITDA margin moving forward.

Further Enhance Our Global Presence

Geographical diversification is a cornerstone to our strategy. We currently operate in over 100 countries through distributors and subsidiaries in 30 countries. The United States is the largest sales region in the world for plasma derivative products. For the year ended December 31, 2018, the United States and Canada accounted for 66.3% of our total net revenues.

Certain sales regions, particularly in emerging markets, continue to experience continuous growth, driven by enhanced socioeconomic conditions and more informed patients who are demanding better quality medical care, as well as increasing government healthcare spending on plasma derivative products. These emerging markets are expected to experience significant growth. Our presence and experience in Latin America, in countries such as Mexico, Colombia, Argentina, Chile and Brazil, where we have been marketing and selling products for over 20 years, has positioned us to benefit from this additional growth in both our Bioscience and Diagnostic divisions. In the Asia-Pacific region, we have established a presence through our subsidiaries and representative offices in Malaysia, China, Thailand, Singapore, Australia, Japan, India, Hong Kong, Taiwan and Indonesia. We have also opened a Middle Eastern representative office in Dubai.

Our continued focus on international expansion and acquisitions that generate operational synergies has been demonstrated by our prior acquisitions, including Talecris, Progenika, Novartis Diagnostics and Hologic's NAT Donor Screening Business. In March 2019, we entered into an agreement to acquire a 26.2% equity interest in Shanghai RAAS. Subject to regulatory approval, pursuant to the agreement,

Shanghai RAAS will become our exclusive distributor of plasma-derived products and transfusional diagnostic solutions in China. This acquisition reinforces our global expansion strategy and commercial presence in China. We will continue to selectively consider acquisitions that would further enhance our operations and complement our portfolio of products.

Continued Investment in Research and Development and Innovation

Research and development is a significant aspect of our business. Our efforts are focused on three key areas:

(i) discovering and developing new products;

(ii) researching new applications for existing products; and

(iii) improving our manufacturing processes to increase yields, safety and efficiency.

In recent years, we have increased our investment in research and development, both directly and through collaborations with our associated companies, such as Alkahest and GigaGen, among others. Our research and development teams are working to develop the possible use of albumin in treating Alzheimer's disease. We completed the Alzheimer Management by Albumin Replacement ("**AMBAR**") trial and published top-line results in 2018. The trial was approved by both Spanish Agency for Medicine and Health Products (*Agencia Española del Medicamento y Productos Sanitarios*) and the FDA. The AMBAR trial demonstrated a significant reduction in the progression of the disease in moderate Alzheimer's patients. A Phase II clinical trial was completed to evaluate the safety and pharmacokinetics of the liquid formulation of alpha 1 antitrypsin for patients with pulmonary emphysema caused by alpha 1 deficiency, and the license request was filed with the FDA in late 2016. In September 2017, the FDA approved our liquid formulation of A1PI (Prolastin®-C Liquid) as a chronic augmentation and maintenance therapy to treat emphysema related to severe hereditary A1PI deficiency. During 2016, the Grifols IVIG (Gamunex C) obtained FDA orphan drug status for Myasthenia Gravis. Currently, there are two ongoing trials in Phase II and III with IVIG for acute and maintenance treatment of Myasthenia Gravis. We received FDA approval for our 20% subcutaneous immunoglobin product, Xembify®, in July 2019 and are planning to launch it in the United States in the last quarter of 2019.

In June 2016, the FDA authorized blood screening for the Zika virus using NAT technology developed by us and Hologic, for use in the United States through the agency's study protocol for IND. Subsequently, in December 2016, we obtained European Conformity (CE Marking) for our Zika virus screening test.

In 2018, our research and development expenses reached €240.6 million. As of December 31, 2018, we had 985 scientists and support staff dedicated to research and development.

We believe there is significant growth potential from the extraction of additional proteins from blood plasma, with only approximately 20 of the more than 100 proteins in blood plasma currently capable of being successfully extracted. Our continued investment in research and development aims to unlock this upside for the benefit of our customers.

Expand Our Product Offerings and become a Leader in the Diagnostic Field

Our research and development team, whose activities are primarily concentrated on the Bioscience division, will continue to seek to develop new plasma derivative products as well as new applications for our existing plasma derivative products. We seek to leverage our plasma derivative product portfolio by offering diagnostic and hospital products developed by our research and development team or by premier healthcare companies with which we maintain distribution agreements. We believe that by increasing the number of products we offer, we can generate higher revenue, diversify our product base and facilitate our entry into new markets. In addition, we also believe that a one stop shopping approach that offers a broader range of complementary, high quality products is particularly attractive to our existing and potential customers.

The Hologic Transaction is part of the consolidation and growth strategy envisaged for the Diagnostic division and has enabled us to continue strengthening our leadership position in transfusion medicine. The Hologic Transaction further promoted the development of new tests and screening routines for emerging viruses.

In the last decade, we have successfully expanded our Diagnostics product portfolio globally and today we have a comprehensive line of reagents, instruments and technologies for immunohematology typing and

blood transfusion. The Novartis acquisition contributed to the expansion of our immunohematology line into the United States.

The Novartis acquisition also enabled us to offer a full range of products to the blood screening market, expanding our portfolio of diagnostic products for transfusion medicine and immunology, with the addition of the Novartis Diagnostic Business' market leading NAT technology, instrumentation and equipment for blood screening, specific software and reagents, as well as with manufacturing capabilities to supply antigens to immunoassay companies. The assets acquired included patents, brands, licenses and royalties, together with the production plant at Emeryville, California and commercial offices in United States, Switzerland and Hong Kong (for the Asia Pacific region) among others. The Novartis acquisition strengthened our Diagnostic division, particularly in the United States, with a market leading and specialized commercial organization and further diversified our business.

Plasma Industry Overview

Plasma derivatives are proteins that are found in human plasma. Once isolated and purified, they have therapeutic value in a number of rare, chronic and life-threatening diseases such as immunological deficiencies, chronic cirrhosis and alpha 1-anti-trypsin deficiency. Plasma, a liquid that accounts for approximately 55% of blood, is obtained after separation via centrifugation of red blood cells, white blood cells and platelets. Proteins are the key component of plasma, accounting for 7% of plasma's composition (water accounts for 90% of plasma's composition). The main proteins found in plasma are albumin, which accounts for 60% of protein volume, alpha (used to produce alpha-1) and beta globulins, which account for 21%, immunoglobulins (used to produce IVIG), which account for 15%, coagulation factors, which account for 1%, and other proteins, which account for the remaining 3%. There are hundreds of proteins present in plasma, however, only a handful of these proteins have so far been developed for therapeutic applications.

According to the MRB, the human plasma-derived products industry has demonstrated revenue growth at a compound annual rate of approximately 9.1% from 2000 to 2017, with estimated worldwide sales of $23 billion in 2017. Sales in North America have grown at a compound annual rate of approximately 12.2% from 2005 through 2017, with sales of $10.7 billion in 2017, representing a 7.8% increase over 2016, according to the MRB. The industry has experienced consistent worldwide growth in demand, driven by increased volume and moderate price increases. Demand for plasma derivatives has grown substantially through active management of disease, the discovery of new therapeutic applications, better diagnoses of the conditions treated with plasma-derived proteins, the development of new products and the increase in prophylactic use. According to the MRB, the two main regions for sale of plasma derivatives in 2017 were the United States and Canada and Asia Pacific, which together represented 72.7% of global sales of plasma-derived therapies. Based on our internal estimates and other external data, these areas continue to concentrate the largest share of global plasma-derived protein sales.

The policy of the World Health Organization and many European jurisdictions is based on a recommendation that blood and its derivatives be obtained from voluntary, altruistic donors. Payment to donors is prohibited in most European countries; however, the United States permits payment to donors. Because of this limitation, most European countries are unable to meet their supply requirements from their own domestic supply (as plasma collected in Europe is generally only used in the country where it is obtained) so rely on paid donations from the United States to fill the supply gap. Unlike Europe, the United States only permits the sale of plasma derivative products that have been manufactured with plasma collected in the United States. Plasma collected in the United States can also be sold in most other world markets. Due to these dynamics, the United States supplied approximately 45% of the world's plasma in 2017.

Recent Developments

The Shanghai RAAS Acquisition

On March 7, 2019, we entered into a share-swap agreement with Shanghai RAAS Blood Products Co Ltd. ("Shanghai RAAS"), a leader in China's plasma derivatives sector, which is listed on the Shenzhen Stock Exchange, by means of which, subject to regulatory approval, we will acquire 26.2% of the voting and economic rights[(1)] in Shanghai RAAS in exchange for a contribution of 45% of the economic rights and

(1) "economic rights" are defined as all rights attached to the shares except voting rights.

40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions Inc. ("GDS"). We will continue to hold 55% of the economic rights and 60% of the voting rights in GDS.

We entered into an Exclusive Strategic Alliance Agreement pursuant to which Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. In exchange for royalties, we will provide technological and know-how support in the bioscience and diagnostic fields to Shanghai RAAS. We will also provide engineering services to Shanghai RAAS in exchange for fees, and Shanghai RAAS will commit to using GDS NAT technology throughout its network of 41 plasma collection centers.

Upon consummation of the transaction, we will be the second largest shareholder in Shanghai RAAS. We will have the right to appoint three directors to the board of directors of Shanghai RAAS and Shanghai RAAS will have the right to appoint one director to the board of directors of GDS. Additionally, we will have a veto right on certain decisions such as those related to the issuance of shares, the disposal of assets, and decisions regarding mergers and modification of the Articles of Association.

The transaction is pending regulatory approvals and we expect the transaction to close in the fourth quarter of 2019.

Xembify

We received FDA approval for our 20% subcutaneous immunoglobin product, Xembify®, in July 2019 and are planning to launch it in the United States in the last quarter of 2019. This approval underscores our commitment to patients in the United States, where the company continues to allocate in an increasing part of its production to meet demand. Its U.S. market launch is scheduled for the fourth quarter of 2019.

Financial information for the nine-month period ended September 30, 2019

Set forth below are certain results of operations that, based on available information, we reported as of and for the nine-month period ended September 30, 2019.

The following table presents our consolidated balance sheet as of September 30, 2019:

Assets	As of September 30, 2019 (euros in thousands)
Non-current assets	
Intangible assets	
Goodwill	5,666,985
Other intangible assets	1,522,283
Rights of use	691,175
Property, plant and equipment	2,112,661
Investments in equity accounted investees	124,032
Non-current financial assets	140,276
Deferred tax assets	119,774
Total non-current assets	**10,377,186**
Current assets	
Inventories	2,327,170
Trade and other receivables	
Trade receivables	295,304
Other receivables	133,181
Current income tax assets	35,795
Trade and other receivables	464,280
Other current financial assets	2,764
Other current assets	73,450
Cash and cash equivalents	792,134
Total current assets	**3,659,798**
Total assets	**14,036,984**

Equity and liabilities	As of September 30, 2019 (euros in thousands)
Equity	
Share capital	119,604
Share premium	910,728
Reserves	2,787,330
Treasury stock	(49,584)
Interim dividend	—
Profit attributable to the Parent	423,402
Total	**4,191,480**
Other comprehensive Income	(554)
Translation differences	580,946
Other comprehensive expenses	580,392
Equity attributable to the Parent	**4,771,872**
Non-controlling interests	520,002
Total equity	**5,291,874**
Liabilities	
Non-Current Liabilities	
Grants	11,698
Provisions	7,602
Non-current financial liabilities	6,903,577
Other non-current liabilities	1,457
Deferred tax liabilities	425,962
Total non-current liabilities	**7,350,296**
Current Liabilities	
Provisions	55,546
Current financial liabilities	415,426
Current debts with related companies	1,282
Trade and other payables	
Suppliers	525,790
Other payables	185,066
Current income tax liabilities	43,095
Total trade and other payables	753,951
Other current liabilities	168,609
Total current liabilities	**1,394,814**
Total liabilities	**8,745,110**
Total equity and liabilities	**14,036,984**

The following table presents our profit and loss data for the nine-month period ended September 30, 2019:

	For the Nine-month Period ended September 30, 2019 (euros in thousands)
Continuing Operations	
Net revenues	3,737,781
Cost of sales	(2,005,167)
Gross Margin	**1,732,614**
Research and Development	(200,989)
Sales, General and Administration expenses	(696,175)
Operating Expenses	**(897,164)**
Profit/(loss) of equity accounted investees with similar activity to that of the Group	6,564
Operating Results	**842,014**
Finance Result	**(265,385)**
Share of income/(losses) of equity accounted investees	(18,626)
Profit before income tax from continuing operations	**558,003**
Income tax expense	(111,601)
Consolidated profit for the period	**446,402**
Profit attributable to the Parent	423,402
Profit/(Loss) attributable to non-controlling interest	23,000

The following table presents our consolidated statement of cashflows for the nine-month period ended September 30, 2019:

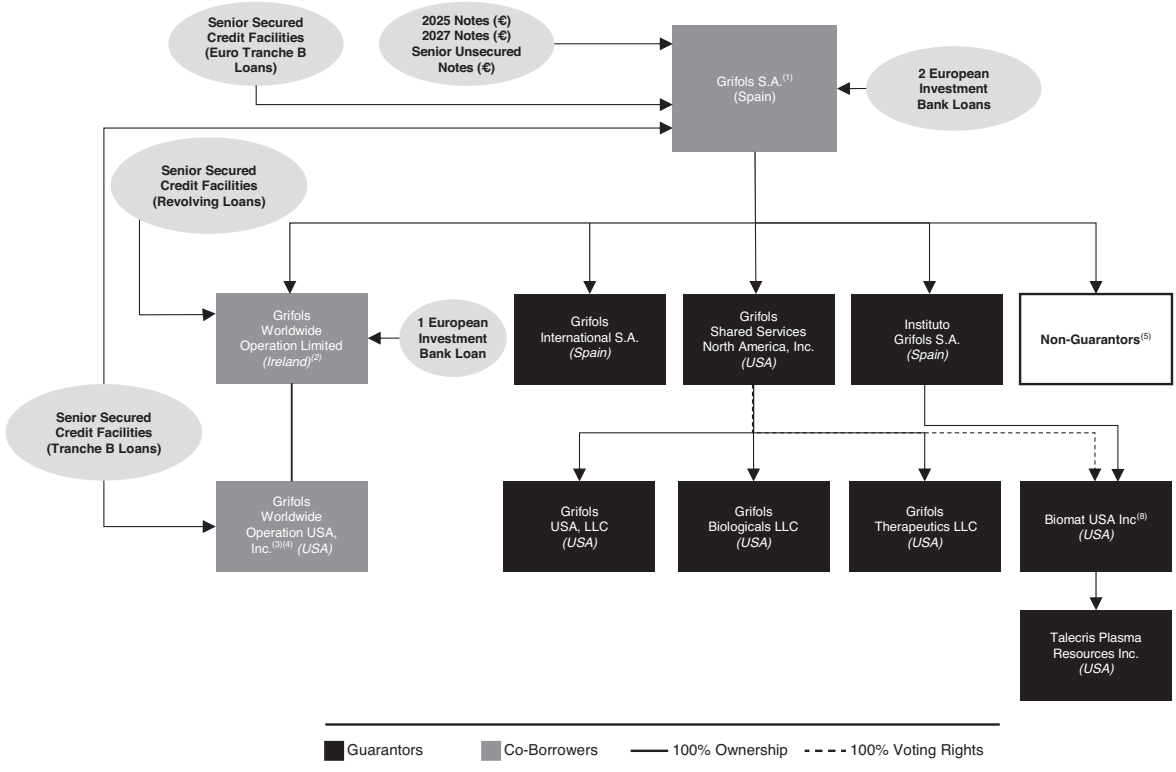
	For the Nine-month Period ended September 30, 2019 (euros in thousands)
Cash flows from operating activities	
Profit before tax	**558,003**
Adjustments for:	**461,797**
Amortisation and depreciation	224,121
Other adjustments:	237,676
(Profit)/Losses on equity accounted investments	12,062
Impairment of Assets and net provision changes	(18,297)
Losses on disposal of fixed assets	790
Government grants taken to income	(1,085)
Finance cost / (income)	252,371
Other adjustments	(8,165)
Changes operating assets and liabilities	**(440,500)**
Change in inventories	(253,018)
Change in trade and other receivables	(52,909)
Change in current financial assets and other current assets	(28,275)
Change in current trade and other payables	(106,298)
Other cash flows used in operating activities	**(240,092)**
Interest paid	(182,289)
Interest recovered	7,659
Income tax paid	(63,358)
Other amounts paid	(2,104)
Net cash from operating activities	**339,208**
Cash flows from investing activities	
Payments for investments	**(395,438)**
Group companies and business combinations	(119,745)
Property, plant and equipment and intangible assets	(254,462)
Property, plant and equipment	(175,239)
Intangible assets	(79,223)
Other financial assets	(21,231)
Proceeds from the sale of property, plant and equipment	**2,297**
Net cash used in investing activities	**(393,141)**
Cash flows from financing activities	
Proceeds from and payments for equity insturments	—
Acquisition of treasury stock	—
Proceeds from and payments for financial liability instruments	(151,325)
Issue	113,725
Redemption and repayment	(265,050)
Dividends and interest on other equity instruments paid and received	(98,423)
Dividends paid	(101,912)
Dividends received	3,489
Other cash flows from financing activities	9,020
Transaction with minority interests with no loss of control	1,120
Net cash used in financing activities	**(239,608)**
Effect of exchange rate fluctuations on cash and cash equivalents	**51,883**
Net decrease in cash and cash equivalents	**(241,658)**
Cash and cash equivalents at beginning of the period	**1,033,792**
Cash and cash equivalents at end of period	**792,134**

All of the data presented above has been prepared by and is the responsibility of our management. Our independent auditors have not audited or reviewed our accompanying financial data.

As a result of the foregoing considerations and the other limitations, investors are cautioned not to place undue reliance on this financial information.

Corporate Structure

The diagram below depicts, in simplified form, our corporate and financing structure on the issue date of the Notes.



(1) The security interest will remain structurally and contractually pari passu among the various tranches of the financing (including the Revolving Credit Facility, tranche B term loans, the Notes and the European Investment Bank Facilities), in accordance with the terms of the Intercreditor Agreement.

(2) Grifols S.A. is the borrower or issuer, as applicable, under the euro demoninated tranche B term loans, the Notes, euro demoninated Senior Unsecured Notes and under two European Investment Bank Term Loans.

(3) Grifols Worldwide Operations Limited is the borrower under the Revolving Credit Facility and the borrower under one European Investment Bank Term Loan.

(4) Grifols Worldwide Operations USA, Inc. is the borrower under the U.S. dollar denominated tranche B term loans.

(5) Grifols Diagnostic Solutions Inc. will cease to be a guarantor under the European Investment Bank facilities as of the Issue Date.

(6) The subsidiaries of Grifols, S.A. that are guarantors and/or co-borrowers under the New Credit Facilities will unconditionally guarantee the Notes on a senior secured basis. For a description of the requirement of such subsidiaries of Grifols, S.A. to guarantee the New Credit Facilities, see "Description of Indebtedness".

(7) Our Non-Guarantor subsidiaries represented €302 million or 24.7% of our Published EBITDA, defined as EBITDA adjuted for other financial results and share of profit/(loss) of equity accounted investees, and €94 million or 15.8% of our profit after income tax from continuing operations for the year ended December 31, 2018 and €182 million, or 26.2% of our Published EBITDA and €64 million or 21.8% of our profit after income tax from continuing operations, for the six-month period ended June 30, 2019.

(8) Non-voting shares of Biomat USA, Inc. are owned by Instituto Grifols, S.A.

Our Corporate Information

We were incorporated in Spain in 1987 under the name Grupo Grifols and changed our name to Grifols in 2005. Our principal executive offices are located at Avinguda de la Generalitat, 152 158, Parc de Negocis

Can Sant Joan, Sant Cugat del Vallès, 08174, Barcelona, Spain. Our ordinary shares are listed on the Spanish Stock Exchanges, and quoted on the Automated Quotation System "mercado continuo" under the symbol "GRF", and they are a component of the IBEX 35 index since 2008. Our Class B shares are listed on the Spanish Stock Exchanges and are quoted on the Spanish Automated Quotation System under the ticker symbol "GRF.P". Our Class B American Depositary Shares, or ADSs, are listed on The NASDAQ Global Select Market, or NASDAQ under the symbol "GRFS" and are a component of the NASDAQ biotechnology index.

THE OFFERING

The summary below describes the principal terms of the 2025 Notes, the 2027 Notes, the Guarantees and the Collateral. Certain of the terms and conditions described below are subject to important limitations and exceptions. The "Description of Notes" section of this offering memorandum contains a more detailed description of the terms and conditions of the Notes, the Guarantees and the Collateral.

Issuer	Grifols, S.A. ("Grifols")
Securities Offered	2025 Notes: €905,000,000 aggregate principal amount of 1.625% senior secured notes due 2025 (the "2025 Notes")
	2027 Notes: €770,000,000 aggregate principal amount of 2.250% senior secured notes due 2027 (the "2027 Notes" and together with the 2025 Notes, the "Notes" and each a separate "series" of Notes)
Maturity Date	2025 Notes: February 15, 2025.
	2027 Notes: November 15, 2027.
Interest Rate	2025 Notes: 1.625% per year.
	2027 Notes: 2.250% per year
Interest Payment Dates	2025 Notes: February 15 and August 15, beginning on February 15, 2020. Interest will accrue from the Issue Date of the 2025 Notes.
	2027 Notes: May 15 and November 15, beginning on May 15, 2020. Interest will accrue from the Issue Date of the 2027 Notes.
Guarantees	The subsidiaries of Grifols that are guarantors and/or co-borrowers under the New Credit Facilities will fully and unconditionally guarantee the Notes on a joint and several senior secured basis. For a description of the requirement of such subsidiaries of Grifols to guarantee the New Credit Facilities, see "Description of Indebtedness".
	Our Non-Guarantor subsidiaries represented €302 million or 24.7% of our Published EBITDA and €94 million or 15.8% of our profit after income tax from continuing operations for the year ended December 31, 2018, €182 million, or 26.2% of our Published EBITDA and €64 million or 21.8% of our profit after income tax from continuing operations for the six-month period ended June 30, 2019, €1,591 million, or 35.5% of our total net revenues for the year ended December 31, 2018 and €764 million, or 31.5% of our total net revenues for the six-month period ended June 30, 2019, €4,822 million, or 38.7% of our total assets at December 31, 2018 and €5,186 million, or 38.9% of our total assets at June 30, 2019.
Ranking	The Notes will:
	• be general, senior obligations of the Issuer, secured as set forth below under "—Security";
	• be *pari passu* with the Issuer's existing and future obligations secured on a first lien basis with the same Collateral, to the extent of the value of the Collateral;

- rank *pari passu* in right of payment with any existing and future senior Indebtedness of the Issuer that is not expressly subordinated in right of payment to the Notes, including the obligations of the Issuer under the European Investment Bank Term Loans and the new credit facilities, which are expected to consist of a $500,000,000 six-year Revolving Credit Facility (the "New Revolving Credit Facility"); a $3,000,000,000 eight-year Term Loan B Facility and a euro-equivalent of $1,600,000,000 eight-year Term Loan B Facility (collectively, the "New Term Loan Facilities", and, together with the New Revolving Credit Facility, the "New Credit Facilities");
- be effectively senior to the Issuer's unsecured indebtedness to the extent of the value of the Collateral securing the Notes, which is the same Collateral securing the European Investment Bank Term Loans and the New Credit Facilities;
- rank senior in right of payment to any existing and future indebtedness of the Issuer that is expressly subordinated in right of payment to the Notes;
- be effectively subordinated to any existing or future indebtedness or obligation of the Issuer and its subsidiaries that is secured by property and assets that do not secure the Notes, to the extent of the value of the property and assets securing such indebtedness; and
- be structurally subordinated to any existing or future indebtedness of the subsidiaries of the Issuer that are not Guarantors, including obligations owed to trade creditors.

The Guarantee of each Guarantor will:

- be a general senior obligation of the relevant Guarantor, secured as set forth below under "—Security";
- be *pari passu* with each Guarantor's existing and future obligations secured on a first lien basis with the same Collateral, to the extent of the value of the Collateral;
- rank at least *pari passu* in right of payment with any existing and future Indebtedness of the relevant Guarantor that is not expressly subordinated in right of payment to such Guarantee, including the obligations of such Guarantor under the New Credit Facilities;
- be effectively senior to each Guarantor's unsecured indebtedness to the extent of the value of the Collateral securing the Notes, which is the same Collateral securing the New Credit Facilities;
- rank senior in right of payment to any existing and future indebtedness of such Guarantor that is expressly subordinated in right of payment to such Guarantee; and
- be effectively subordinated to any existing or future indebtedness or obligation of such Guarantor that is secured by property and assets that do not secure such Guarantee to the extent of the value of the property and assets securing such other indebtedness.

Security	The Notes and the guarantees will be secured obligations of the Issuer and the Guarantors, respectively. On or about the Issue Date, the Notes will be secured by a perfected first priority security interest (subject to permitted liens) in all of the tangible and intangible assets of the domestic Guarantors and plasma inventory of Grifols Worldwide Operations Limited and pledges of equity of certain subsidiaries of Grifols, S.A. (subject to certain exclusions and limitations). The Collateral securing the Notes will secure the New Credit Facilities and the European Investment Bank Term Loans. The Collateral may be limited by applicable law or subject to certain defenses that may limit their validity and enforceability. For more information on the security interests granted, see "Description of Notes" and for more information on potential limitations to the security interests, see "Risk Factors—Risks Related to the Notes". The security interests over the Collateral may be released under certain circumstances. See "Risk Factors—Risks Related to the Notes" and "Description of Notes".
Additional Amounts	All payments by or on behalf of the Issuer or any Guarantor (or any surviving entity) under or with respect to the Notes or any Guarantee will be made free and clear of, and without withholding or deduction for taxes, unless required by law. If any withholding or deduction for or on account of any taxes imposed by any relevant taxing jurisdiction is required, the Issuer, the Guarantor or surviving entity, as the case may be, will pay such additional amounts as may be necessary to ensure that the net amount received by each holder of the Notes after such withholding or deduction will be not less than the amount the holder would have received if such taxes had not been required to be withheld or deducted, subject to certain exceptions. See "Description of Notes".
Optional Redemption	We may redeem some or all of the 2025 Notes at any time prior to February 15, 2022 at a price equal to 100% of the principal amount of the 2025 Notes plus accrued and unpaid interest and additional amounts plus a "make-whole" premium as set forth under "Description of Notes—Optional Redemption". Additionally, we may redeem the Notes, in whole or in part, at any time on and after February 15, 2022 at the redemption prices set forth under "Description of Notes—Optional Redemption". We may redeem some or all of the 2027 Notes at any time prior to November 15, 2022 at a price equal to 100% of the principal amount of the Notes, plus accrued and unpaid interest and additional amounts, if any, plus a "make-whole" premium as set forth under "Description of Notes—Optional Redemption". Additionally, we may redeem the 2027 Notes, in whole or in part, at any time on and after November 15, 2022 at the redemption prices set forth under "Description of Notes—Optional Redemption". The Notes of either series may be optionally redeemed in full or in part before the Notes of the other series are optionally redeemed in full (or at all).

Optional Redemption After Equity Offerings	We may redeem up to 40% of the outstanding 2025 Notes with money that we raise in one or more equity offerings at any time (which may be more than once) prior to February 15, 2022, as long as at least 50% of the aggregate principal amount of Notes (including Additional Notes) issued remains outstanding immediately following any such offerings at the price set forth therein. See "Description of Notes—Optional Redemption". We may redeem up to 40% of the outstanding 2027 Notes with money that we raise in one or more equity offerings at any time (which may be more than once) prior to November 15, 2022, as long as at least 50% of the aggregate principal amount of Notes (including Additional Notes) issued remains outstanding immediately following any such offerings at the price set forth therein. See "Description of Notes—Optional Redemption".
Redemption for Taxation	In the event of certain developments affecting taxation, the Issuer may redeem either series of Notes in whole, but not in part, at any time, at a redemption price of 100% of the principal amount, plus accrued and unpaid interest, if any, and additional amounts, if any, to the date of redemption. See "Description of Notes—Optional Redemption—Redemption Upon Changes in Withholding Taxes".
Change of Control Offer	If we experience a change of control, we must give holders of each series of Notes the opportunity to sell us their Notes at 101% of their face amount, plus accrued and unpaid interest. See "Description of Notes—Repurchase at the Option of Holders—Change of Control".
Certain Indenture Provisions	The Indenture will contain covenants that, among other things, limit the ability of the Issuer and its restricted subsidiaries to: • incur additional debt and issue guarantees and preferred stock; • make certain payments, including dividends and other distributions, with respect to outstanding share capital; • make certain investments or loans, including participating in joint ventures; • repay or redeem subordinated debt or share capital; • create or incur certain liens; • impose restrictions on the ability of subsidiaries to pay dividends or make other payments to the Issuer; • sell, lease or transfer certain assets, including shares of any of our restricted subsidiaries; • guarantee certain types of our other indebtedness without also guaranteeing the Notes; • effect a merger or consolidation of, or sell, all or substantially all of our assets or all of the assets of certain companies within the Group; • enter into certain transactions with affiliates; and

	• impair the security interests for the benefit of the holders of the Notes. Each of these covenants is subject to a number of important limitations and exceptions as described under "Description of Notes—*Certain Covenants*".
Transfer Restrictions	The Notes will not be registered under the Securities Act. The Notes are subject to restrictions on transfer and may only be offered or sold in transactions exempt from or not subject to the registration requirements of the Securities Act. See "Notice to Investors". We have not registered the Notes under the Securities Act or the Securities laws of any other jurisdiction. We will not be required to, nor will we, register the Notes for resale under the Securities Act or the securities laws of any other jurisdiction.
No Prior Market	The Notes will be new securities for which there is no market. Although the initial purchasers have informed us that they intend to make a market in the Notes, they are not obligated to do so and may discontinue market-making at any time without notice. Accordingly, a liquid market for the Notes may not develop or be maintained.
Use of Proceeds	We will use the net proceeds from the offering of the Notes to refinance a portion of the Issuer's existing term loan obligations and pay related fees and expenses. See "Use of Proceeds".
Trading and Listing	Application has been made to Euronext Dublin for the approval of the "Listing Particulars". Application has also been made to Euronext Dublin for each series of Notes to be admitted to the Official List and to be traded on the Global Exchange Market of Euronext Dublin.
Governing Law	The Indenture, the Guarantees therein and each series of Notes will be governed by the laws of the State of New York. The Security Documents will be governed by the laws applicable to the relevant asset.
Trustee	BNY Mellon Corporate Trustee Services Limited.
Principal Paying Agent	The Bank of New York Mellon, London Branch.
Registrar and Transfer Agent	The Bank of New York Mellon SA/NV, Luxembourg Branch.
Notes Collateral Agent	The Bank of New York Mellon, London Branch.
Risk Factors	Investing in the Notes involves substantial risks. See "Risk Factors" for a description of the risks you should consider before investing in the Notes.

SUMMARY HISTORICAL CONSOLIDATED FINANCIAL DATA

The following is a summary of our historical consolidated financial data for the periods ended and as of the dates indicated below. You are encouraged to read this information together with our consolidated financial statements, consolidated interim financial statements, the related footnotes and the section entitled "Selected Historical Consolidated Financial Data" and "Operational and Financial Review" included elsewhere in this offering memorandum. For a discussion of certain factors regarding our presentation of financial data, see "Presentation of Financial and Other Information—Financial Information".

The following table presents our consolidated financial data for the periods and as of the dates indicated. Our consolidated financial data as of and for the years ended December 31, 2018, 2017 and 2016 is derived from our consolidated financial statements as of and for the years ended December 31, 2018, 2017 and 2016, included elsewhere in this offering memorandum.

Our consolidated financial data as of and for the six-month periods ended June 30, 2019 and 2018 is derived from our consolidated interim financial statements as of and for each of the six-month periods ended June 30, 2019 and 2018. See "Presentation of Financial and Other Information—Financial Information".

The following table presents our consolidated balance sheet as of June 30, 2019 and December 31, 2018, 2017 and 2016:

	As of June 30,	As of December 31,		
Consolidated Balance Sheet Data	**2019**	**2018**	**2017**	**2016**
		(in thousands of euros)		
ASSETS				
Non-current assets				
Goodwill	5,416,606	5,209,230	4,590,498	3,643,995
Other intangible assets	1,417,377	1,385,537	1,269,342	1,195,302
Rights of use	657,610	—	—	—
Property, plant and equipment	2,022,645	1,951,983	1,760,053	1,809,852
Investments in equity-accounted investees	137,615	226,905	219,009	201,345
Non-current financial assets	130,038	107,601	69,889	89,545
Deferred tax assets	117,521	112,539	66,157	67,219
Total non-current assets	**9,899,412**	**8,993,795**	**7,974,948**	**7,007,258**
Current assets				
Inventories	2,205,763	1,949,360	1,629,293	1,642,931
Trade and other receivables				
Trade receivables	332,027	269,167	286,198	413,656
Other receivables	103,707	92,418	40,681	42,299
Current income tax assets	23,228	42,205	59,531	77,713
Trade and other receivables	458,962	403,790	386,410	533,668
Other current financial assets	169,434	53,965	10,738	2,582
Other current assets	36,507	42,344	32,354	48,324
Cash and cash equivalents	553,697	1,033,792	886,521	895,009
Total current assets	**3,424,363**	**3,483,251**	**2,945,316**	**3,122,514**
Total Assets	**13,323,775**	**12,477,046**	**10,920,264**	**10,129,772**

Consolidated Balance Sheet Data	As of June 30, 2019	As of December 31, 2018	2017	2016
		(in thousands of euros)		
EQUITY AND LIABILITIES				
Equity				
Share capital	119,604	119,604	119,604	119,604
Share premium	910,728	910,728	910,728	910,728
Reserves	2,794,647	2,441,931	2,027,648	1,694,245
Treasury stock	(49,650)	(55,441)	(62,422)	(68,710)
Interim dividend	0	(136,747)	(122,986)	(122,908)
Profit attributable to the Parent/Profit for the year attributable to the Parent	286,880	596,642	662,700	545,456
Total/Total Equity	**4,062,209**	**3,876,717**	**3,535,272**	**3,078,415**
Available for sale financial Assets	—	—	4,926	(5,219)
Other comprehensive income	(554)	(554)	(656)	(642)
Translation differences	332,109	349,391	89,537	648,927
Other comprehensive expenses	331,555	348,837	93,807	643,066
Equity attributable to the Parent	**4,393,764**	**4,225,554**	**3,629,079**	**3,721,481**
Non-controlling interests	492,055	471,050	4,886	6,497
Total Equity	**4,885,819**	**4,696,604**	**3,633,965**	**3,727,978**
Liabilities				
Grants	11,484	11,845	11,822	12,196
Provisions	7,351	6,114	5,763	5,118
Non-current financial liabilities	6,740,150	6,099,463	5,901,815	4,712,071
Other non-current liabilities	1,398	1,301	—	—
Deferred tax liabilities	401,114	404,398	388,912	600,646
Total non-current liabilities	**7,161,497**	**6,523,121**	**6,308,312**	**5,330,031**
Provisions	54,714	80,055	106,995	89,588
Current financial liabilities	341,295	277,382	155,070	230,065
Current debts with related companies/debt with associates	3,295	7,079	—	—
Trade and other payables				
Suppliers	536,743	561,883	423,096	461,073
Other payables	152,069	159,816	141,720	142,894
Current income tax liabilities	40,757	1,917	6,709	7,957
Total trade and other payables	729,569	723,616	571,525	611,924
Other current liabilities	147,586	169,189	144,397	140,186
Total current liabilities	**1,276,459**	**1,257,321**	**977,987**	**1,071,763**
Total Liabilities	**8,437,956**	**7,780,442**	**7,286,299**	**6,401,794**
Total Equity and Liabilities	**13,323,775**	**12,477,046**	**10,920,264**	**10,129,772**

The following table presents our profit and loss data for the six-month periods ended June 30, 2019 and June 30, 2018:

	For the Six-month Period Ended June 30,		Change	
	2019	2018	€	%
	(in thousands of euros, except for percentages)			
Continuing Operations				
Net revenues	2,423,360	2,120,118	303,242	14.3%
Cost of sales	(1,297,413)	(1,113,858)	(183,555)	16.5%
Gross margin	**1,125,947**	**1,006,260**	119,687	11.9%
Research and development	(132,573)	(112,247)	(20,326)	18.1%
Sales, general and administration expenses	(451,023)	(387,771)	(63,252)	16.3%
Operating expenses	**(583,596)**	**(500,018)**	(83,578)	16.7%
Profit/(loss) of equity accounted investees with similar activity to that of the Group	5,538	—	5,538	100%
Operating result	**547,889**	**506,242**	41,647	8.2%
Finance Income	10,621	7,049	3,572	50.7%
Finance costs	(179,676)	(135,914)	(43,762)	32.2%
Change in fair value of financial instruments	—	32,096	(32,096)	(100)%
Impairment of financial instruments	(880)	(980)	100	(10.2)%
Exchange differences	2,402	(5,439)	7,841	(144.2)%
Finance result	**(167,533)**	**(103,188)**	(64,345)	62.4%
Share of income/(losses) of equity accounted investees	(12,057)	(5,729)	(6,328)	110.5%
Profit before income tax from continuing operations	**368,299**	**397,325**	(29,026)	(7.3)%
Income tax expense	(73,660)	(79,442)	5,782	(7.3)%
Profit after income tax from continuing operations	294,639	317,883	(23,244)	(7.3)%
Consolidated profit for the period	**294,639**	**317,883**	(23,244)	(7.3)%
Profit attributable to the Parent	**286,880**	**318,979**	(32,099)	(10.1)%
Profit/(Loss) attributable to non-controlling interests	**7,759**	**(1,096)**	8,855	(807.9)%

The following table presents our profit and loss data for the years ended December 31, 2018, 2017 and 2016:

Consolidated Statement of Profit or Loss Data	For the Year Ended December 31, 2018	2017	2016
	(in thousands of euros, except for per share and share data)		
Continuing Operations			
Net revenue	4,486,724	4,318,073	4,049,830
Cost of sales	(2,437,164)	(2,166,062)	(2,137,539)
Gross Profit	**2,049,560**	**2,152,011**	**1,912,291**
Research and development	(240,661)	(288,320)	(197,617)
Selling, general and administration expenses	(814,775)	(860,348)	(775,266)
Operating Expenses	**(1,055,436)**	**(1,148,668)**	**(972,883)**
Operating Results	**994,124**	**1,003,343**	**939,408**
Finance income	13,995	9,678	9,934
Finance costs	(293,273)	(263,344)	(244,829)
Change in fair value of financial instruments	—	(3,752)	(7,610)
Impairment and gains/(losses) on disposal of financial instruments	30,280	(18,844)	—
Exchange differences	(8,246)	(11,472)	8,916
Finance result	**(257,244)**	**(287,734)**	**(233,589)**
Share of profits/(losses) of equity-accounted investees	(11,038)	(19,887)	6,933
Profit before income tax from continuing operations	**725,842**	**695,722**	**712,752**
Income tax expense	(131,436)	(34,408)	(168,209)
Profit after income tax from continuing operations	**594,406**	**661,314**	**544,543**
Consolidated profit for the year	**594,406**	**661,314**	**544,543**
Profit attributable to the Parent	**596,642**	**662,700**	**545,456**
Loss attributable to non-controlling interests	**(2,236)**	**(1,386)**	**(913)**
Basic earnings per share (euros)[1]	**0.87**	**0.97**	**0.80**
Average weighted number of ordinary shares outstanding[1]	**684,709,377**	**684,197,276**	**683,225,815**

(1) On January 4, 2016, the share split approved on December 3, 2015 by the Company's board of directors became effective. As a result of the share split, the nominal value of the new Class A shares became €0.25 per share (previously €0.50 per share), while the nominal value of the new Class B shares became €0.05 per share (previously €0.10 per share).

	As of and for the six month period ended June 30, 2019	As of and for the year ended December 31, 2018	2017	2016
	(in thousands of euros, except for percentages)			
Capital expenditures[1]	(135,512)	(261,190)	(279,973)	(282,507)
Dividends paid	(101,912)	(278,841)	(218,260)	(216,151)
Net debt[2]	5,844,628	5,343,053	5,170,363	4,047,127
EBITDA[3]	696,905	1,247,724	1,174,556	1,159,450
Published EBITDA[3]	696,819	1,222,733	1,218,834	1,141,277
Published EBITDA margin[4]	29%	27%	28%	28%
Adjusted EBITDA[3]	685,289	1,218,410	1,305,580	1,141,277
Adjusted Net Revenues[5]	2,351,054	4,406,426	4,318,073	4,049,830
Adjusted EBITDA Margin[6]	29%	28%	30%	28%
Leverage ratio[7]	4.50x			

(1) Represents the additions of property, plant and equipment and computer software assets. We consider that this measure presents the investments made mainly to continue improving and expanding our production facilities in order to ensure our long-term sustainable growth.

(2) Net debt, as defined in our existing credit and guaranty agreement, is calculated as Existing Debt excluding lease liabilities (IFRS 16 implementation impact), minus cash and cash equivalents.

	At September 30, 2019	At June 30, 2019	At December 31, 2018	2017	2016
			(in millions of euros)		
Existing Debt:	6,596	6,398	6,377	6,057	4,942
Existing Credit Facilities	5,348	5,182	5,234	5,049	3,958
Existing Notes	1,000	1,000	1,000	1,000	949
Other Credit Facilities and Financial Liabilities	248	216	143	8	36
Minus:					
Cash and cash equivalents	792	554	1,034	887	895
Net debt	**5,804**	**5,845**	**5,343**	**5,170**	**4,047**

(3) The following table sets forth the calculation of EBITDA, Published EBITDA and Adjusted EBITDA. EBITDA is defined as profit after income tax from continuing operations before interest, income tax expense, depreciation and amortization. Our Published EBITDA is calculated as EBITDA adjusted for other financial results and share of profit/(loss) of equity accounted investees. Our Adjusted EBITDA is calculated as Published EBITDA adjusted for exceptional impairments of intangible assets, significant transaction costs from business combinations and the margin from the preexisting contracts of Haema and Biotest US ("Plasma Transactions") prior to Grifol's acquisition of these companies. We believe EBITDA, Published EBITDA and Adjusted EBITDA enhance our investors' understanding of our operating performance and is a useful measure of our ability to service and/or incur debt.

	For the Nine-month Period ended September 30, 2019	Last Twelve Months June 2019 (C+A-B)	For the Six-month Period ended June 30, 2019 (A)	2018 (B)	For the Year Ended December 31, 2018 (C)	2017	2016
			(in thousands of euros)				
Profit after income tax from continuing operations	**446,402**	**571,162**	**294,639**	**317,883**	**594,406**	**661,314**	**544,543**
Interest (Finance cost)	(269,444)	(337,035)	(179,676)	(135,914)	(293,273)	(263,344)	(244,829)
Income tax expense	(111,601)	(125,654)	(73,660)	(79,442)	(131,436)	(34,408)	(168,209)
Amortization and depreciation	(224,121)	(269,581)	(148,930)	(107,958)	(228,609)	(215,490)	(201,869)
EBITDA	1,051,567	1,303,432	696,905	641,197	1,247,724	1,174,556	1,159,450
Share of profit/ (losses) of equity accounted investees	(18,626)	(17,367)	(12,057)	(5,729)	(11,038)	(19,887)	6,933
Other Financial Result	4,059	15,446	12,143	32,726	36,029	(24,390)	11,240
Published EBITDA	1,066,135	1,305,352	696,819	614,200	1,222,733	1,218,833	1,141,277
Plasma Transactions	21,207	15,853	11,530	—	4,323	—	—
Significant transaction costs related to business combinations[(i)]	—	—	—	—	—	(23,371)	—
Exceptional impairment of intangibles[(ii)]	—	—	—	—	—	(63,375)	—
Adjusted EBITDA	**1,044,928**	**1,289,499**	**685,289**	**614,200**	**1,218,410**	**1,305,579**	**1,141,277**

(i) Corresponds to legal fees and expenses incurred in connection with the Hologic business acquisition.

(ii) This amount corresponds to the impairment related to Aradigm.

(4) Published EBITDA Margin is calculated as Published EBITDA divided by Net Revenues.

(5) Adjusted Net Revenues is calculated as net revenue adjusted for the plasma sales from preexisting contracts with third-parties from the Haema and Biotest US acquisitions.

(6) Adjusted EBITDA Margin is calculated as Adjusted EBITDA divided by Adjusted Net Revenues.

(7) Leverage ratio is defined and calculated, of and for the last twelve months of June 30, 2019, as Net debt of June 30, 2019, of €5,844,628 thousand divided by Adjusted covenant EBITDA (defined as EBITDA in our existing credit and guaranty agreement) of €1,297,911 thousand. Adjusted covenant EBITDA is defined and calculated as Published EBITDA (€1,305,352 thousand) before the fees incurred in connection with acquisitions (€22,931 thousand) and less the effects of implementation of IFRS 16 (€30,372 thousand) for the last twelve months of June 30, 2019.

	Last Twelve Months	For the Six-month Period ended June 30,		Year ended December 31,		
	June 2019 (C+A-B)	2019 (A)	2018 (B)	2018 (C)	2017	2016
	(in thousands of euros, except for percentages)					
Net revenues	4,789,966	2,423,360	2,120,118	4,486,724	4,318,073	4,049,830
Sales from plasma transactions	(152,605)	(72,306)	0	(80,298)	—	—
Adjusted Net Revenues	4,637,361	2,351,054	2,120,118	4,406,426	4,318,073	4,049,830
Published EBITDA	1,305,352	696,819	614,200	1,222,733	1,218,833	1,141,277
Published EBITDA Margin	27%	29%	29%	27%	28%	28%
Adjusted EBITDA	1,289,499	685,289	614,200	1,218,410	1,305,579	1,141,277
Adjusted EBITDA Margin	28%	29%	29%	28%	30%	28%

RISK FACTORS

An investment in the Notes is subject to a number of risks. You should carefully consider the following factors, as well as the other information in this offering memorandum, before investing in the Notes. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also materially and adversely affect our operations and financial condition.

Risks Relating to the Notes

Our substantial level of indebtedness could adversely affect our financial condition, restrict our ability to react to changes to our business, and prevent us from fulfilling our obligations under our debt.

We have a significant amount of indebtedness. As of June 30, 2019, our current and non-current financial liabilities were €6.4 billion, excluding the impact of IFRS 16, which totals €0.7 billion, of which a substantial majority (€6.1 billion) was non-current financial liabilities. On an as adjusted basis after giving effect to the offering of the Notes and the New Credit Facilities, we would have €7.5 billion of indebtedness outstanding. See "Use of Proceeds", "Capitalization" and "Description of Indebtedness" for more detailed information.

Our high level of indebtedness could have important consequences for your investment in the Notes and significant adverse effects on our business, such as:

- making it more difficult for us to satisfy our obligations with respect to the Notes;
- making us more vulnerable to economic downturns and adverse developments in our business;
- impairing our ability to obtain additional financing for working capital, capital expenditures, acquisitions or general corporate purposes;
- reducing the funds available to us for operations and other purposes due to the substantial portion of our cash flow that we will use to pay interest on the Notes and our other indebtedness;
- limiting our ability to fund a change of control offer;
- placing us at a competitive disadvantage compared to our competitors that may have proportionately less debt;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate; and
- restricting us from making strategic acquisitions or exploiting other business opportunities.

We expect to use cash flow from operations to pay our expenses and amounts due under the Notes and our outstanding indebtedness. Our ability to make these payments depends on our future performance, which will be affected by financial, business, economic, and other factors, many of which we cannot control. Our business may not generate sufficient cash flow from operations in the future and our anticipated growth in revenue and cash flow may not be realized, either or both of which could result in our being unable to repay indebtedness, including the Notes, or to fund other liquidity needs. If we do not have enough money, we may be required to refinance all or part of our then-existing debt (including the Notes), sell assets, or borrow more money. We may not be able to accomplish any of these alternatives on terms acceptable to us, or at all. In addition, the terms of existing or future debt agreements may restrict us from adopting any of these alternatives. The failure to generate sufficient cash flow or to achieve any of these alternatives could materially and adversely affect our business, results of operations and financial condition, the value of the Notes and our ability to pay the amounts due under the Notes.

Despite our substantial indebtedness, we may still incur significantly more debt. This could exacerbate the risks associated with our substantial leverage.

We may be able to incur substantial additional indebtedness, including additional secured indebtedness, in the future. Our business is capital intensive, and we regularly seek additional capital. Although the indenture governing the Notes, or the Indenture, the New Credit Facilities and the European Investment Bank Term Loans (as defined herein) contain restrictions on the incurrence of additional debt, these restrictions are subject to a number of qualifications and exceptions and, under certain circumstances, debt incurred in compliance with these restrictions, including secured debt, could be substantial. Adding additional debt, including under the New Credit Facilities, to current debt levels could exacerbate the leverage related risks described above. For more information on our indebtedness, see "Description of Indebtedness".

To service our indebtedness and other obligations, we will require a significant amount of cash. Our ability to generate cash depends on many factors beyond our control.

Our ability to make payments on and to refinance our indebtedness, including the Notes, and to fund working capital needs and planned capital expenditures will depend on our ability to generate cash in the future. A significant reduction in our operating cash flows resulting from changes in economic conditions, increased competition or other events beyond our control could increase the need for additional or alternative sources of liquidity and could have a material adverse effect on our business, financial condition, results of operations, prospects and our ability to service our debt and other obligations. If we are unable to service our indebtedness, we will be forced to adopt an alternative strategy that may include actions such as reducing capital expenditures, selling assets, restructuring or refinancing our indebtedness or seeking additional equity capital. We cannot assure you that any of these alternative strategies could be effected on satisfactory terms, if at all, or that they would yield sufficient funds to make required payments on the Notes and our other indebtedness.

We cannot assure you that our business will generate sufficient cash flows from operations or that future borrowings will be available to us under the New Credit Facilities or otherwise in an amount sufficient to enable us to pay our indebtedness, including the Notes, or to fund our other liquidity needs. We may need to refinance all or a portion of our indebtedness, including the Notes, on or before the maturity of such indebtedness. We cannot assure you that we will be able to refinance any of our indebtedness including the New Credit Facilities, the Notes and the European Investment Bank Term Loans, on commercially reasonable terms or at all.

If we default on our obligations to pay our indebtedness, we may not be able to make payments on the Notes.

Any default under the agreements governing our indebtedness, including a default under our New Credit Facilities and our European Investment Bank Term Loans, that is not waived by the required lenders, and the remedies sought by the lenders of such indebtedness, could prevent us from paying principal, premium, if any, and interest on the Notes and substantially decrease the market value of the Notes. If we are unable to generate sufficient cash flow and are otherwise unable to obtain funds necessary to meet required payments of principal, premium, if any, and interest on our indebtedness, or if we otherwise fail to comply with the various covenants, including financial and operating covenants, in the instruments governing our indebtedness (including covenants in the New Credit Facilities, the European Investment Bank Term Loans and the Indenture), we could be in default under the terms of the agreements governing such indebtedness. If our operating performance declines, we may need to obtain waivers from the required lenders under the New Credit Facilities and the European Investment Bank Term Loans to avoid being in default. If we breach our covenants under the New Credit Facilities or the European Investment Bank Term Loans and seek a waiver, we may not be able to obtain a waiver from the required lenders. If we fail to obtain waivers when required, we would be in default under our New Credit Facilities and the European Investment Bank Term Loans. In the event of any such defaults, the lenders of such indebtedness could elect to declare all the funds borrowed thereunder to be due and payable, together with accrued and unpaid interest. In addition, the lenders under our New Credit Facilities and the European Investment Bank Term Loans could elect to terminate their commitments thereunder, cease making further loans and institute foreclosure proceedings against our assets or take other enforcement action with respect to our assets, and we could be forced into bankruptcy or liquidation.

Drawings under the New Credit Facilities will bear interest at floating rates that could rise significantly, increasing our costs and reducing our cash flow.

The drawings under the New Credit Facilities will, and future indebtedness that we may incur could, bear interest at floating rates of interest per annum equal to EURIBOR or LIBOR (as applicable) as adjusted periodically, plus a spread. These interest rates could rise significantly in the future. Although we may enter into certain hedging arrangements designed to fix a portion of these rates, there can be no assurance that hedging will be available or continue to be available on commercially reasonable terms. To the extent that interest rates or any drawings were to increase significantly, our interest expense would correspondingly increase, reducing our cash flow.

Covenants in our debt agreements restrict our business in many ways.

The Indenture, the New Credit Facilities and the European Investment Bank Term Loans will contain various covenants, with customary caveats, that limit our ability and/or our restricted subsidiaries' ability to, among other things:

- incur or assume liens or additional debt or provide guarantees in respect of obligations of other persons;
- issue redeemable stock and preferred equity;
- pay dividends or make distributions to the shareholders of Grifols, S.A. redeem or repurchase capital stock;
- prepay, redeem or repurchase debt;
- make loans, investments and capital expenditures;
- enter into agreements that restrict distributions from our restricted subsidiaries;
- sell assets and capital stock of our subsidiaries;
- enter into certain transactions with affiliates;
- consolidate or merge with or into, or sell substantially all of our assets to, another person; and
- impair the security interests for the benefit of the holders of the Notes.

A breach of any of these covenants could result in a default under our New Credit Facilities, the European Investment Bank Term Loans and/or the Notes. Upon the occurrence of an event of default under the New Credit Facilities and the European Investment Bank Term Loans, our creditors could elect to declare all amounts outstanding under the New Credit Facilities and the European Investment Bank Term Loans to be immediately due and payable and terminate all commitments to extend further credit. If we were unable to repay those amounts, the lenders could proceed against the collateral granted to them to secure that indebtedness. We have pledged a significant portion of our assets as collateral under the New Credit Facilities and the European Investment Bank Term Loans. If our creditors under the New Credit Facilities or the European Investment Bank Term Loans accelerate the repayment of borrowings, we may not have sufficient assets to repay the New Credit Facilities, the European Investment Bank Term Loans and our other indebtedness, including the Notes. See "Description of Indebtedness".

We may not be able to satisfy our obligations to holders of the Notes upon a change of control or certain sales of assets.

Upon the occurrence of a change of control, as defined in the Indenture, we will be required to offer to purchase each series of Notes at a price equal to 101% of the principal amount of such Notes, together with any accrued and unpaid interest, to the date of purchase. See "Description of Notes—Repurchase at the Option of Holders—Change of Control".

In certain circumstances, upon the occurrence of an asset sale, as defined in the Indenture, we will be required to offer to purchase each series of Notes at a price equal to 100% of the principal amount of such Notes, together with any accrued and unpaid interest, to the date of purchase. See "Description of Notes—Repurchase at the Option of Holders—Asset Sale".

We cannot assure you that, if a change of control offer or asset sale offer is made, we will have available funds sufficient to pay the change of control purchase price or asset sale purchase price for any or all of the Notes that might be delivered by holders of the Notes seeking to accept the change of control offer or asset sale offer. If we are required to purchase Notes of either series pursuant to a change of control offer or asset sale offer, we would be required to seek third-party financing to the extent we do not have available funds to meet our purchase obligations. There can be no assurance that we will be able to obtain such financing on acceptable terms to us or at all. Accordingly, it is possible that none of the holders of the Notes of each series may receive the change of control purchase price or asset sale purchase price for their Notes. Our failure to make or consummate the change of control offer or asset sale offer, or to pay the change of control purchase price or asset sale purchase price when due, will give the holders of the Notes of each series the rights described in "Description of Notes".

In addition, the events that constitute a change of control or asset sale under the Indenture may also be events of default under our New Credit Facilities and the European Investment Bank Term Loans. These events may permit the lenders under our New Credit Facilities and the European Investment Bank Term

Loans to accelerate the debt outstanding thereunder and, if such debt is not paid, to enforce security interests in our specified assets, thereby limiting our ability to raise cash to purchase the Notes and reducing the practical benefit of the offer-to-purchase provisions to the holders of the Notes.

The trading prices of the Notes will be directly affected by our ratings with major credit rating agencies, the prevailing interest rates being paid by companies similar to us, and the overall condition of the financial and credit markets.

The trading prices of the Notes in the secondary market will be directly affected by our ratings with major credit rating agencies, the prevailing interest rates being paid by companies similar to us, and the overall condition of the financial and credit markets. It is impossible to predict the prevailing interest rates or the condition of the financial and credit markets. Credit rating agencies continually revise their ratings for companies that they follow, including us. Any ratings downgrade could adversely affect the trading price of the Notes or the trading market for the Notes, to the extent a trading market for the Notes develops. The condition of the financial and credit markets and prevailing interest rates have fluctuated in the past and are likely to fluctuate in the future.

Our subsidiaries may be unable to fulfill their obligations under their guarantees.

We expect that our subsidiaries will use cash flow from operations to pay amounts due, if any, pursuant to their guarantees of the Notes. The ability of such subsidiaries to make these payments depends on our future performance, which will be affected by financial, business, economic, and other factors, many of which we cannot control. Such subsidiaries' businesses may not generate sufficient cash flow from operations in the future and their anticipated growth in revenue and cash flow may not be realized, either or both of which could result in their being unable to honor their guarantees or to fund other liquidity needs. If such subsidiaries do not have enough cash, they may be required to refinance all or part of their then-existing debt, sell assets, or borrow additional amounts. They may not be able to accomplish any of these alternatives on terms acceptable to them, or at all. In addition, the terms of existing or future debt agreements, including our New Credit Facilities, the European Investment Bank Term Loans and the Indenture, may restrict such subsidiaries from adopting any of these alternatives. The failure of our subsidiaries to generate sufficient cash flow or to achieve any of these alternatives could materially and adversely affect the value of the Notes and the ability of such subsidiaries to pay the amounts due under their guarantees, if any.

Our ability to meet our financial obligations depends on our ability to receive dividends and other distributions from our subsidiaries.

Our principal assets are the equity interests that we hold in our operating subsidiaries. As a result, we are dependent on dividends and other distributions from our subsidiaries to generate the funds necessary to meet our financial obligations, including the payment of principal and interest on our outstanding debt. Our subsidiaries may not generate sufficient cash from operations to enable us to make principal and interest payments on our indebtedness, including the Notes. In addition, any payment of dividends, distributions, loans or advances to us by our subsidiaries could be subject to restrictions on dividends or, in the case of foreign subsidiaries, restrictions on repatriation of earnings under applicable local law and monetary transfer restrictions in the jurisdictions in which our subsidiaries operate. In addition, payments to us by our subsidiaries will be contingent upon our subsidiaries' earnings. Our subsidiaries are permitted under the terms of our indebtedness to incur additional indebtedness that may restrict certain payments from those subsidiaries to us. We cannot assure you that agreements governing current and future indebtedness of our subsidiaries will permit those subsidiaries to provide us with sufficient cash to fund payments on our indebtedness when due. Our subsidiaries are legally distinct from us and, except for existing and future subsidiaries that guarantee certain indebtedness, have no obligation, contingent or otherwise, to pay amounts due on our debt or to make funds available to us for such payment.

We cannot assure you that an active trading market will develop for the Notes.

Prior to this offering, there has been no trading market for the Notes. We have been informed by the initial purchasers that they intend to make a market in the Notes after the offering is completed. However, the initial purchasers may cease their market-making activities at any time without notice. In addition, the liquidity of the trading market in the Notes, if any, and any market price quoted for the Notes, may be adversely affected by changes in the overall market for high-yield securities and by changes in our financial performance or prospects or in the financial performance or prospects for companies in our industry

generally. In addition, such market-making activities will be subject to limits imposed by the United States federal securities laws, and may be limited during the pendency of any shelf registration statement. As a result, we cannot assure you that an active trading market will develop or be maintained for the Notes. If an active trading market does not develop or is not maintained, the market price and liquidity of the Notes may be adversely affected. In that case you may not be able to sell your Notes at a particular time or at a favorable price.

There are restrictions on transfers of the Notes.

The Notes have not been and will not be registered under the Securities Act or any state securities laws and are, and will be, subject to significant transfer restrictions. The transfer and resale of the Notes in jurisdictions outside the United States may be subject to restrictions under the laws of such jurisdictions. See "Notice to Investors". We are relying upon an exemption from registration under the Securities Act and applicable state securities laws in offering the Notes. As a result, the Notes may be transferred or resold only in transactions registered under, or exempt from, the Securities Act and applicable state securities laws and applicable laws and protections outside the United States.

As the Global Notes are held by or on behalf of Euroclear and Clearstream, investors will have to rely on their procedures for transfer, payment and communication with the Issuer.

Each series of Notes may be represented by one or more global notes, or the Global Notes. Such Global Notes will be deposited with a common depositary or common safekeeper, as applicable, for Euroclear and Clearstream. Except in the circumstances described in the relevant global note, investors will not be entitled to receive definitive Notes. Euroclear and Clearstream will maintain records of the beneficial interests in the Global Notes. While the Notes are represented by one or more Global Notes, investors will be able to trade their beneficial interests only through Euroclear and Clearstream.

While a series of Notes is represented by one or more Global Notes we will discharge our payment obligations under such Notes by making payments to the common depositary or paying agent (in the case of a Global Note in NGN form) for Euroclear and Clearstream for distribution to our account holders. A holder of a beneficial interest in a Global Note must rely on the procedures of Euroclear and Clearstream to receive payments under the relevant Notes. We have no responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Notes.

Holders of beneficial interests in the Global Notes will not have a direct right to vote in respect of the relevant Notes. Instead, such holders will be permitted to act only to the extent that they are enabled by Euroclear and Clearstream to appoint appropriate proxies. Similarly, holders of beneficial interests in the Global Notes will not have a direct right under the Global Notes to take enforcement action against us in the event of a default under the relevant Notes but will have to rely upon their rights under the Indenture.

We are not providing all of the information that would be required if this offering were being registered with the SEC.

This offering memorandum does not include all of the information that would be required if we were registering the offering of the Notes with the SEC. In particular, this offering memorandum does not contain separate financial information about our Guarantor and non-Guarantor subsidiaries or certain historical executive compensation information. We urge you to consider this factor in connection with your evaluation of your investment in the Notes.

Credit ratings may not reflect all risks.

One or more independent credit rating agencies may assign credit ratings to an issue of Notes. The ratings may not reflect the potential impact of all risks related to structure, market, additional factors discussed above, and other factors that may affect the value of the Notes. A credit rating is not a recommendation to buy, sell or hold securities and may be revised or withdrawn by the rating agency at any time.

In general, European regulated investors are restricted under Regulation (EU) No 462/2013 of the European Parliament and of the Council of 21 May 2013 amending Regulation (EC) No 1060/2009 on credit rating agencies, or the CRA Regulation, from using credit ratings for regulatory purposes, unless such ratings are issued by a credit rating agency established in the European Union and registered under the CRA Regulation (and such registration has not been withdrawn or suspended), subject to transitional provisions that apply in certain circumstances while the registration application is pending. Such general restriction will also apply in the case of credit ratings issued by non-EU credit rating agencies, unless the relevant credit ratings are endorsed by an EU-registered credit rating agency or the relevant non-EU

rating agency is certified in accordance with the CRA Regulation (and such endorsement action or certification, as the case may be, has not been withdrawn or suspended).

The Notes and each of the Guarantees will be structurally subordinated to present and future liabilities of our non-Guarantor subsidiaries.

Not all of our subsidiaries will guarantee the Notes. Generally, claims of creditors of a non-Guarantor subsidiary, including trade creditors and claims of preference shareholders (if any) of the subsidiary, will have priority with respect to the assets and earnings of the subsidiary over the claims of creditors of its parent entity, including claims by holders of Notes under the Guarantees. In the event of any foreclosure, dissolution, winding-up, liquidation, administration, examinership, reorganization or other insolvency or bankruptcy proceeding of any of our non-Guarantor subsidiaries, holders of their indebtedness and their trade creditors will generally be entitled to payment of their claims from the assets of those subsidiaries before any assets are made available for distribution to its parent entity. As such, the Notes and each Guarantee will each be structurally subordinated to the creditors (including trade creditors) and preference shareholders (if any) of our non-Guarantor subsidiaries. The covenants in the Indenture permit us to incur additional indebtedness at subsidiaries that do not guarantee the Notes and in the future the revenue and EBITDA of such entities could increase, possibly substantially. Our non-Guarantor subsidiaries accounted for €302 million, or 24.7% of our Published EBITDA and 94 million or 15.8% of our profit after income tax from continuing operations for the fiscal year ended December 31, 2018, and €182 million, or 26.2% of our Published EBITDA and 64 million or 21.8% of our profit after income tax from continuing operations for the six months ended June 30, 2019.

The Guarantees of the Notes, along with any future guarantees of the Notes, will be subject to certain limitations on enforcement and may be limited by applicable law or subject to certain defenses that may limit their validity and enforceability.

The Issuer's obligations under the Notes will be guaranteed by the Guarantors. The Notes and the Guarantees may be subject to claims that they should be limited or subordinated in favor of the Issuer's existing and future creditors under the laws of Ireland, Spain and the United States and/or any other applicable jurisdiction.

Enforcement of each Guarantee will, where applicable, be limited to the extent of the amount which can be guaranteed by a particular Guarantor without rendering the Guarantee, as it relates to that Guarantor, voidable or otherwise ineffective under applicable law and without rendering the Guarantor insolvent or subject to any legal cause that would require it to be dissolved. These laws and defenses include those that relate to fraudulent conveyance or transfer, insolvency, voidable preference, financial assistance, corporate purpose or benefit, preservation of share capital, thin capitalization and defenses affecting the rights of creditors generally.

Although laws differ among various jurisdictions, in general, under fraudulent conveyance and similar laws, a court could subordinate or void any Guarantee if it found that:

- the relevant Guarantee was incurred with actual intent to hinder, delay or defraud creditors or shareholders of the Guarantor other person or to prefer one creditor over another or, in certain jurisdictions, even when the recipient was simply aware that the Guarantor or other person was insolvent when it issued the Guarantee
- the Guarantor did not receive fair consideration or reasonably equivalent value for the Guarantee or
- the Guarantor was insolvent, subsequently became insolvent or was rendered insolvent because of the Guarantee or security or
- the Guarantor was undercapitalized or became undercapitalized because of the Guarantee or
- the Guarantor intended to incur, or believed that it would incur, debts beyond its ability to pay at maturity or
- the Guarantee was not in the best interests or for the benefit of the Guarantor or
- the amount paid was in excess of the minimum amount permitted under applicable law.

The measure of insolvency for purposes of fraudulent conveyance and similar laws varies depending on the law applied. Generally, however, a Guarantor would be considered insolvent if it could not pay its obligations as they became due. In such circumstances, if a court voided such Guarantee, or held it unenforceable, noteholders would cease to have any claim in respect of the Guarantor and would be a

creditor solely of the Issuer and the remaining Guarantors. If a court decides a Guarantee was a fraudulent conveyance and voids the Guarantee, or holds it unenforceable for any other reason, you may cease to have any claim in respect of the Guarantor and would be a creditor solely of the Issuer and any remaining Guarantors.

Loans under the New Credit Facilities and the European Investment Bank Term Loans will be secured on a ratable basis by the Collateral securing the Notes and the Guarantees and the value of the Collateral may not be sufficient to satisfy our obligations under the Notes.

Obligations under the Notes will be secured by first-priority liens on the Collateral, which also secures on a first-priority basis obligations under the New Credit Facilities and the European Investment Bank Term Loans, subject to certain permitted liens, exceptions and encumbrances described in the Indenture governing the Notes and the security documents relating to the Notes. As a result, in the event of insolvency or liquidation, there may not be sufficient Collateral to pay all of the Notes. No appraisal of the value of the Collateral has been made in connection with the Offering, and we cannot assure you that the value of the Collateral is equal to or greater than our obligations with respect to the Notes, the Guarantees, the European Investment Bank Term Loans and the New Credit Facilities. In addition, the fair market value of the Collateral is subject to fluctuations based on factors that include, among others, general economic conditions. The amount to be received upon a sale of the Collateral would be dependent on numerous factors, including, but not limited to, the actual fair market value of the Collateral at such time, the timing and the manner of the sale and the availability of buyers. Likewise, we cannot assure you that the Collateral will be saleable or, if saleable, that there will not be substantial delays in its liquidation. The Indenture will allow us to incur additional secured debt, including under certain circumstances, secured debt that will share in the Collateral that will secure the Notes and the Guarantees. Accordingly, in the event of a foreclosure, liquidation, bankruptcy or similar proceeding, the Collateral may not be sold in a timely or orderly manner, and the proceeds from any sale or liquidation of the Collateral may not be sufficient to satisfy the Issuer's and the Guarantors' obligations under the Notes, the Guarantees, the European Investment Bank Term Loans, the New Credit Facilities and any future debt that is secured by the Collateral.

To the extent that pre-existing liens, liens permitted under the Indenture and other rights, such as those securing certain purchase money obligations and capital lease obligations granted to other parties (in addition to the holders of obligations secured by first-priority liens), encumber any of the Collateral, those parties have or may exercise rights and remedies with respect to the Collateral that could adversely affect the value of the Collateral and the ability of the collateral agent for the Notes or the holders of the Notes to realize or foreclose on the Collateral. In this regard, the Intercreditor Agreement provides that only the collateral agent for the New Credit Facilities, who will serve as the security agent for the lenders under the New Credit Facilities and the European Investment Bank Term Loans and the collateral agent for the Notes for the holders of the Notes under the Indenture will act only as provided for in the Intercreditor Agreement. The Intercreditor Agreement will regulate the ability of the Trustee or the holders of the Notes to instruct the collateral agent for the New Credit Facilities to take enforcement action. The collateral agent for the New Credit Facilities will not be required to take enforcement action unless instructed to do so by the "Required Senior Creditors" (defined in the Intercreditor Agreement as lenders under the New Credit Facilities, the European Investment Bank Term Loans and the Notes holding loans or principal amount of Notes outstanding, as applicable, representing more than 50.00% of the aggregate outstanding obligations under such instruments). As a result, holders of the Notes will not solely control decisions in respect to the Collateral, including timing of enforcement, and the lenders under the New Credit Facilities and European Investment Bank Term Loans may have interests that are different from the interests of holders of the Notes and they may, subject to the terms of the Intercreditor Agreement, elect to pursue their remedies under the documents relating to the Collateral at a time when it would be disadvantageous for the holders of the Notes to do so.

The security interests in the Collateral also will be subject to practical problems generally associated with the realization of security interests in collateral. For example, the consent of a third party may be required to obtain or enforce a security interest in a contract. We cannot assure you that any such consent could be obtained. We also cannot assure you that the consents of any third parties will be given when and if required to facilitate a foreclosure on such assets. Accordingly, the collateral agent for the Notes may not have the ability to foreclose upon those assets and the value of the Collateral may be significantly impaired. In addition, our business requires compliance with numerous governmental and regulatory requirements. Continued operation of our properties that are part of the Collateral will depend on the continued compliance with such governmental and regulatory requirements to the extent applicable, and our business

and the value of the Collateral may be adversely affected if we fail to comply with these requirements or changes in these requirements. In the event of foreclosure, the transfer of such permits and licenses may be prohibited or may require us to incur significant cost and expense. Furthermore, we cannot assure you that the applicable governmental authorities will consent to the transfer of all such permits. If the regulatory approvals required for such transfer are not obtained or are delayed, the foreclosure may be delayed, our operations may be shut down and the value of the Collateral may be significantly impaired. Moreover, the ability of the Trustee and/or the collateral agent under the New Credit Facilities and/or the European Investment Bank to enforce the security interests in the Collateral is subject to mandatory provisions of the laws of each jurisdiction in which security interests over the Collateral are taken. For example, the laws of certain jurisdictions (including, among others, Spain) may not allow for an appropriation of certain pledged assets, but require a sale through a public auction and certain waiting periods may apply. There is some uncertainty under the laws of certain jurisdictions (including, among others, Spain) as to whether obligations to beneficial owners of the Notes that are not identified as registered holders in a security document will be validly secured.

There may not be sufficient Collateral to pay off any amounts the Issuer may borrow under the New Credit Facilities and the European Investment Bank Term Loans and any other secured indebtedness we incur that ranks pari passu with or prior to the Notes.

Liquidating the Collateral may not result in proceeds in an amount sufficient to pay any amounts due under the Notes, the European Investment Bank Term Loans and the New Credit Facilities after satisfying the obligations to pay any creditors with prior liens. If the proceeds of the sale of the Collateral are not sufficient to repay all amounts due on the Notes, the European Investment Bank Term Loans and the New Credit Facilities, the holders of the Notes (to the extent not repaid from the proceeds of the sale of the Collateral) would have only an unsecured claim against our and the Guarantors' remaining assets, which may not be sufficient to repay our obligations under the Notes.

Sales of assets by the Issuer and the Guarantors could reduce the Collateral and the Guarantees.

The security documents that will relate to the Notes may allow the Issuer and the Guarantors to remain in possession of, retain exclusive control over, freely operate and collect, invest and dispose of any income from, the Collateral. To the extent the Issuer or a Guarantor sells any assets that constitute such Collateral, the proceeds from such sale will be subject to the liens securing the Notes offered hereby and Guarantees only to the extent such proceeds would otherwise constitute Collateral under the security documents and subject to the limitations of laws of the jurisdiction governing such Collateral. Such proceeds may also be subject to the security interests of certain creditors other than the holders of the Notes, some of which may be senior or prior to the liens held by the holders of the Notes, or may have a lien in those assets that is *pari passu* with the lien of the holders of the Notes. To the extent the proceeds from any sale of Collateral do not constitute Collateral under the security documents, the pool of assets securing the Notes and the Guarantees will be reduced, and the Notes and the Guarantees will not be secured by such proceeds.

Rights of holders of the Notes in the Collateral may be adversely affected by the failure to create or perfect the security interests.

The Collateral securing the Notes and the Guarantees will include substantially all of the Issuer's and the Guarantors' tangible and intangible assets (with exceptions), which assets also secure the Issuer's and the Guarantors' indebtedness under the European Investment Bank Term Loans and New Credit Facilities, whether now owned or acquired or arising in the future. Assets held by affiliate entities other than the Issuer or a Guarantor will not be part of the Collateral. Applicable law requires that a security interest in certain tangible and intangible assets can only be properly created and/or perfected and its priority retained through certain actions undertaken by the secured party or the security provider. The liens on the Collateral may not be perfected if we are not able to take the actions necessary to create or perfect any of these liens on or prior to the date of the issuance of the Notes or thereafter as the Indenture will permit us to create or perfect certain liens after the Issue Date. To the extent a security interest in certain Collateral is not properly created and/or perfected on the date of the issuance of the Notes, such security interest might be avoidable in bankruptcy, which could impact the value of the Collateral.

If additional material wholly owned restricted subsidiaries are formed or acquired and become Guarantors under the Indenture, additional financing statements or security documents may be required to be filed to perfect the security interest in the assets of such Guarantors. Depending on the type of the assets constituting after-acquired collateral, additional action may be required to perfect the security interest in

such assets. Applicable law requires that certain property and rights acquired after the grant of a general security interest can be created or perfected only at the time such property and rights are acquired and identified. Neither the Trustee nor the collateral agent for the Notes will be responsible to monitor, and the Issuer may not inform the Trustee or the collateral agent for the Notes of, the future acquisition of property and rights that constitute Collateral, and that the necessary action will be taken to properly create and/or perfect the security interest in such after-acquired collateral. None of the Trustee, the collateral agent for the Notes and the collateral agent for the New Credit Facilities will have any obligation to monitor the acquisition of additional property or rights that constitute Collateral or monitor the creation or perfection of, or make filings (if required) to perfect or maintain the perfection of, any security interests therein. Such inaction may result in the loss of the security interest in such Collateral or the priority of the security interest in favor of the Notes and the Guarantees against third parties. Even if the collateral agent for the Notes does properly create and/or perfect liens on Collateral acquired or arising in the future, such liens may potentially be avoidable as a preference in any insolvency or bankruptcy proceeding under certain circumstances or as a fraudulent conveyance or fraudulent transfer.

Spanish law may require that a security interest in certain assets can only be properly perfected and its priority retained through certain actions undertaken by the secured party or the grantor of the Collateral. The liens on the Collateral may not be perfected, if the Issuer, the relevant Guarantor or the Trustee and/or the collateral agent for the Notes and/or the New Credit Facilities and/or the lender under the European Investment Bank Term Loans are not able to or do not take the actions necessary to perfect or maintain the perfection of any such liens. The Trustee and/or the collateral agent for the Notes and/or the New Credit Facilities and/or the lender under the European Investment Bank Term Loans will not have any obligation to take any steps or actions necessary to perfect or maintain the perfection of such liens. Certain of these perfection steps may not be taken until after the Issue Date, or until the occurrence of certain events, as permitted by the Security Documents, the Indenture, the European Investment Bank Term Loans and the New Credit Facilities.

With respect to the blood plasma Collateral, according to Spanish Law on Chattel Mortgages and Pledges Without Transfer (*Ley de 16 de diciembre de 1954, sobre Hipoteca Mobiliaria y prenda sin desplazamiento de la posesión*), it is necessary that the pledge over the blood plasma be registered with the competent Chattel Registry (*Registro de bienes Muebles*) in order for the charge over the blood plasma to be perfected. Such registration implies that the registrar reviews the terms of the pledge in order to confirm that such terms comply with Spanish law. On the basis of such revision, the registrar will decide whether or not to register the pledge. According to the pledge agreement, the Issuer have an obligation to carry out any actions as may be necessary in order for the pledge to be registered. Nonetheless, as the final decision on the registration depends on the registrar, we cannot assure that the pledge will be registered and, therefore, that all perfection requirements with respect to the blood plasma Collateral will be met.

The security interests in the Collateral will be granted to the Trustee or the collateral agent for the Notes as applicable, rather than directly to the holders of the Notes.

The security interests in the Collateral that will secure our obligations under the Notes and the obligations of the Guarantors under the Guarantees will not be granted directly to the holders of the Notes but will be granted only in favor of the Trustee (who will accept them on behalf of the holders of the Notes) or the collateral agent for the Notes, as applicable. As a consequence, holders of the Notes will not have direct security interests and will not be entitled to take enforcement action in respect of the Collateral securing the Notes, except through the Trustee or the collateral agent for the Notes, who will (subject to the provisions of the Indenture) provide instructions to the collateral agent for the Notes in respect of the Collateral.

Notwithstanding the foregoing, Spanish law does not contemplate the concepts of "collateral agent", "security agent" or "trustee". Thus, if enforcement of any security interest in Spain was to be carried out by the Truestee and/or the collateral agent for the Notes, it may be necessary to prove that the Trustee and/or the collateral agent for the Notes are duly and expressly empowered for such purpose by means of duly notarized powers of attorney granted by each of the holders of the Notes in favor of the Trustee and/or the collateral agent for the Notes with the Apostille of The Hague Convention dated October 5, 1961 (or similar formalities in case the relevant power of attorney was granted in a country that is not party to such Convention). Therefore, there could be a delay in the enforcement of the Collateral in Spain while the Trustee and/or the collateral agent for the Notes obtain such powers and proves before the relevant court, notary or enforcing authority that it has enough faculties to act in the name and on behalf of the holders of the Notes. In the absence of the notarized and apostilled powers of attorney, the Trustee and/or

the collateral agent for the Notes may not be able to enforce the relevant Collateral or security interests in Spain on behalf of the holders of the Notes, and there is a risk that the Trustee and/or the collateral agent for the Notes would only be able to enforce the security interest against the debt that it individually holds, and not for the full amount owed to creditors for whom they may be acting as the Trustee and/or the collateral agent for the Notes.

In addition, in Spain, it may be the case that for the actual enforcement of the Collateral, each of the secured parties benefiting from such Collateral would have to evidence its title to the secured obligations, ratify such Collateral and accept the benefit of the security interest in their respective names by executing a public deed through duly appointed representatives by means of notarized and apostilled powers of attorney. Those beneficial holders of the security that have not accepted the security or duly empowered (by means of notarial and apostilled powers of attorney) the Trustee and/or the collateral agent for the Notes to do so may be treated, from a Spanish law perspective, including without limitation in an insolvency scenario, as unsecured creditors. Further, there is a risk that the relevant court or notary public before whom any Spanish security interest may eventually be enforced might request both the notarization of the documents from which the relevant obligations arise, and the notarization of each and every one of the transfer certificates regarding each and every transfer of the Notes.

In addition, the ability of the Trustee and/or the collateral agent for the Notes to enforce the security interests in the Collateral is subject to mandatory provisions of the laws of each jurisdiction in which security interests over the Collateral are taken. For example, the laws of certain jurisdictions (including, among others, Spain) may not allow for an appropriation of certain pledged assets, but require a sale through a public auction and certain waiting periods may apply. There is some uncertainty under the laws of certain jurisdictions (including, among others, Spain) as to whether obligations to beneficial owners of the Notes that are not identified as registered holders in a security document will be validly secured.

Holders of the Notes will not control decisions regarding the Collateral.

The lenders of the New Credit Facilities will initially control substantially all matters related to the Collateral, which will secure both the New Credit Facilities and the Notes. The lenders of the New Credit Facilities and the European Investment Bank Term Loan may cause the collateral agent under the applicable security agreements to take action (or delay or refuse to take action) to dispose of, foreclose on, or exercise other remedies with respect to the Collateral with which holders of the Notes may disagree or that may be contrary to the interests of holders of the Notes pursuant to the terms of the Intercreditor Agreement.

Lien searches may not reveal all liens on the Collateral.

We cannot guarantee that the lien searches on the Collateral that will secure the Notes and the Guarantees will reveal any or all existing liens on such Collateral. In some foreign jurisdictions, there is no official register of liens secured by entities over their assets. Any such existing lien, including undiscovered liens, could be significant, could rank prior to the liens securing the Notes and the Guarantees and could have an adverse effect on the ability of the collateral agent for the Notes to realize or foreclose upon the Collateral securing the Notes and the Guarantees.

The imposition of certain permitted liens will, under certain circumstances, permit the liens on the related assets securing the Notes and the Guarantees to be either subordinated to such permitted liens or released. There are also certain other assets that are also excluded from the Collateral.

The Indenture that will govern the Notes will permit liens in favor of third parties to secure additional indebtedness, including purchase money indebtedness and capital lease obligations, and, in the case of certain of such liens, the liens on the related assets securing the Notes and the related Guarantees may, under certain circumstances, be either subordinated to such permitted liens or released. Our ability to incur additional indebtedness and liens on such additional indebtedness in favor of third parties is subject to limitations as described herein under the heading "Description of Notes". In addition, certain assets are excluded from the Collateral securing the Notes and the Guarantees, as discussed under "Description of Notes". If an Event of Default occurs and the maturity of the Notes is accelerated, the Notes and the Guarantees will rank *pari passu* with the holders of other unsecured indebtedness of the relevant obligor with respect to such excluded assets. As a result, if the value of the assets pledged as security for the Notes is less than the value of the claims of the holders of the Notes, those claims may not be satisfied in full before the claims of our unsecured creditors are paid.

Any future pledge of Collateral or Guarantee may be avoidable in bankruptcy.

Collateral pledged or perfected upon, or Guarantees issued, after the Issue Date may be treated under bankruptcy law as if they were pledged or perfected upon to secure, or delivered to guarantee, as applicable, previously existing indebtedness. Any future pledge or perfection of Collateral or issuance of a Guarantee in favor of the holders of the Notes may be avoidable by the pledgor (as a debtor in possession), guarantor (as a debtor in possession), by its trustee in bankruptcy, or potentially by other creditors if certain events or circumstances exist or occur, including, among others, if (i) the pledgor or guarantor is insolvent at the time of the pledge or perfection and/or issuance of the guarantee, (ii) the pledge or perfection and/or issuance of the guarantee (as applicable) permits the holders of the Notes to receive a greater recovery in a hypothetical Chapter 7 (or equivalents) case than if such pledge or perfection and/or guarantee (as applicable) had not been given and (iii) a bankruptcy proceeding (or equivalents) in respect of the pledgor or guarantor is commenced within 90 days following the pledge or the perfection thereof as the case may be, and/or the issuance of the guarantee (as applicable), or, in certain circumstances, one year (and in certain jurisidictions such as Spain, up to two or four years depending on the circumstances). Accordingly, if the Issuer or any Guarantor were to file for bankruptcy protection after the Issue Date and any pledge of Collateral not pledged, or any Guarantees not issued, on the Issue Date had been pledged or perfected or issued (as applicable) less than 90 days (or longer period, depending on the circumstances and jurisdiction) before commencement of such bankruptcy proceeding, such pledges or Guarantees are materially more likely to be avoided as a preference by the bankruptcy court than if delivered on the Issue Date (even if the other guarantees or liens (as applicable) issued and/or perfected on the Issue Date would no longer be subject to such risk). To the extent that the grant or perfection of any such security interest and/or Guarantee is avoided as a preference or otherwise, you would lose the benefit of the security interest and/or guarantee (as applicable) and could have to return payments or property to us.

Rights of holders of the Notes in the Collateral may be adversely affected by bankruptcy proceedings.

The right of the collateral agent for the Notes to foreclose upon, repossess and dispose of the Collateral securing the Notes and the Guarantees is likely to be significantly impaired (or at a minimum delayed) by federal bankruptcy law if bankruptcy proceedings are commenced by or against the Issuer or the Guarantors that provide security for the Notes and the Guarantees prior to, or possibly even after, any collateral agent has repossessed and disposed of the Collateral. Under the U.S. Bankruptcy Code, a secured creditor, such as the collateral agent for the Notes, is prohibited from foreclosing upon or repossessing its security from a debtor in a bankruptcy case, or from disposing of security previously repossessed from a debtor, without prior bankruptcy court approval (which may not be given under the circumstances or which could be delayed). Moreover, bankruptcy law permits the debtor to continue to retain and use collateral, and the proceeds, products, rents or profits of the collateral, even though the debtor is in default under the applicable debt instruments, provided that the secured creditor is given "adequate protection". The meaning of the term "adequate protection" may vary according to the circumstances, but it is intended in general to protect the value of the secured creditor's interest in its collateral and may include cash payments or the granting of additional or replacement security, if and at such time as the court in its discretion determines, for any diminution in the value of the collateral as a result of the automatic stay of repossession or disposition or any use of the collateral by the debtor during the pendency of the bankruptcy case. A bankruptcy court may determine that a secured creditor may not require compensation for a diminution in the value of its collateral if the value of the collateral exceeds the debt it secures. In view of both the lack of a precise definition of the term "adequate protection" under the U.S. Bankruptcy Code and the broad discretionary powers of a bankruptcy court, it is impossible to predict how, whether or when payments under the Notes could be made following the commencement of a bankruptcy case, the length of the delay in making any such payments or whether any such payment will be made at all or in what form, whether or when the collateral agent for the Notes could or would repossess or dispose of the collateral, the value of the collateral as of the commencement date of any bankruptcy proceedings or any other date, or whether or to what extent or in what form holders of the Notes would be compensated for any delay in payment or loss of the value of the Collateral through the requirements of "adequate protection".

In the event the bankruptcy court determines that the value of the Collateral is not sufficient to repay all amounts due on the Notes and all of our other outstanding obligations secured with the Collateral, the holders of the Notes would be "undersecured". U.S. bankruptcy laws do not provide for the payment or accrual of interest, expenses, costs and attorneys' fees on the undersecured, "deficiency" portion of a creditor claims during a debtor's bankruptcy case nor is a creditor entitled to adequate protection on account of any undersecured portion of its claims.

Under Spanish law, once a debtor is declared insolvent, the debtor's power to administer and dispose of its assets may be suspended, being in that case substituted by the insolvency receiver (as set forth in Articles 40 to 70 of the Spanish Insolvency Law). However, regular acts related to the business activity of the debtor will not be interrupted, provided that these acts do not imply disposition of assets; otherwise, authorization from insolvency receiver or Commerical Court will be required, having an impact on the timing of the disposition of the asset.

The Collateral securing the Notes is subject to obsolescence, impairment, and casualty risks.

We maintain insurance or otherwise insure against certain hazards. There are, however, losses that may be not be insured. The value of the assets that the Issuer and the other Guarantors own or lease serving as Collateral may be materially adversely affected by depreciation and normal wear and tear or because of certain events that may cause damage to these properties. If there is a total or partial loss of any of the pledged Collateral, we cannot assure you that any insurance proceeds received by us will be sufficient to satisfy all the secured obligations, including the Notes, the New Credit Facilities and related Guarantees.

There are circumstances, other than the repayment or discharge of the Notes, under which the Collateral will be released automatically, without your consent or the consent of the collateral agent for the Notes, and you may not realize any payment upon the release of such Collateral.

Under various circumstances, the Collateral will be released automatically, without action by, or consent of, any holder of the Notes or the Trustee under the Indenture and the Intercreditor Agreement that will govern the Notes, at the discretion of lenders under the New Credit Facilities, including:

- upon a sale, transfer or other disposition of such Collateral (to a person that is not the Issuer or a Guarantor) in a transaction not prohibited under the Indenture that will govern the Notes. See "Description of Notes";
- with respect to Collateral held by a Guarantor of the Notes, upon the release of such Guarantor from its guarantees; and
- pursuant to the terms of the Intercreditor Agreement, upon any release in connection with a foreclosure or exercise of remedies with respect to such Collateral by the controlling collateral agent in accordance with the terms of the Intercreditor Agreement.

The Indenture will also permit us to designate one or more of the Guarantor's restricted subsidiaries that is a Guarantor of the Notes as an unrestricted subsidiary. If we designate a Guarantor as an unrestricted subsidiary for purposes of the Indenture, all of the liens on any Collateral owned by that subsidiary and any Guarantees by that subsidiary will be released under the Indenture. Designation of an unrestricted subsidiary will reduce the aggregate value of the Collateral securing the Notes to the extent that liens on the assets of the unrestricted subsidiary are released. In addition, the creditors of any such unrestricted subsidiary will have a claim on the assets of the unrestricted subsidiary senior to the claim of the holders of the Notes.

You will not have a claim as a creditor against any subsidiary that is no longer a Guarantor, and the indebtedness and other liabilities, including trade payables, whether secured or unsecured, of those non-Guarantor subsidiaries will be structurally senior to claims of noteholders.

The enforcement of the Collateral may be restricted by Spanish law.

No statutory provision of Spanish law regulates the possibility of creating concurrently more than a single pledge over the same assets or right (either with the same or with different ranking), except for pledges governed by Article 569.15 of the Catalan Law on *In Rem* Rights, which prohibits the creation of more than a single pledge over the same assets or right in favor of different creditors. In this respect, we are of the opinion, together with a relevant number of scholars, that the creation of two or more pledges over a certain asset or right is legally possible and that, similarly, such pledges may rank *pari passu* amongst

themselves (except for pledges governed by Article 569.15 of the Catalan Law on *In Rem* Rights, which expressly prohibits second and subsequent pledges if not granted in favor of the same secured creditors). Such opinion is based on the Spanish mortgage laws and regulations (*normativa hipotecaria*) being analogically applied, even though it should be pointed out that this opinion is not unanimously supported by the scholars and that there is, to the best of our knowledge, no case law either for or against the analogical application of the mortgage legal principles to the ordinary pledge (*prenda común*). Therefore, although there are grounds to sustain the effectiveness of concurrent and/or second ranking pledges governed by Spanish law other than Catalan Law on *In Rem* Rights, it cannot be disregarded that a court may take a different view and consider such pledges ineffective and not admissible in Spain.

The enforcement of the Collateral governed by Spanish law is, and will be, subject to practical problems generally associated with the realization of collateral under Spanish law.

Each security interest granted over the Collateral will be limited in scope to the lesser of (i) the value of the relevant assets expressed to be subject to that security interest, and (ii) the maximum amount secured by the security interest, and enforcement of each Security Document would be subject to certain generally available defenses. These laws and defenses include those that relate to corporate benefit, fraudulent conveyance or transfer, voidable preference, financial assistance, corporate interest, capital maintenance or similar laws, regulations or defenses affecting the rights of creditors generally.

Furthermore, Spanish Insolvency Law imposes a moratorium on the enforcement of secured creditor's rights (*in rem* security) in the event of insolvency. The moratorium would take effect following the declaration of insolvency until the earlier of (i) one year from the declaration of the insolvency if the insolvent company has not been placed in liquidation or (ii) the date the creditors reach an agreement that does not affect the exercise of the rights granted by the security interest, with the limitations explained above. This moratorium only affects those assets that are considered as necessary for the debtor´s activity.

Also, under Spanish law there are some provisions on capitalization which have to be taken into account when security interests are enforced. For instance, when the enforcement of the security interests cause the amount of the relevant Spanish subsidiary net equity (*patrimonio neto*) to fall below half of its share capital (*capital social*), the Spanish subsidiary will need to be wound up (*disuelta*), unless its share capital is increased or decreased in the required amount to re-establish the balance between its net equity and its share capital, and provided that it is not required to request the declaration of insolvency.

See also "Risk Factors—Rights of holders of the Notes in the Collateral may be adversely affected by the failure to create or perfect the security interests".

The Agreed Security Principles set out a number of limitations on the rights of the holders of the Notes.

The Agreed Security Principles set out a number of limitations on the rights of the holders of the Notes to require granting of, or payment or enforcement under, a guarantee or security in certain circumstances. The operation of the Agreed Security Principles may result in, among other things, the amount recoverable under any guarantee or security provided by any subsidiary being limited or security not being granted over a particular type or class of assets. Accordingly, the Agreed Security Principles may affect the value of the Guarantees and Collateral provided by us and our subsidiaries. The validity and enforceability of the guarantees and security may also be affected by local law limitations.

We do not expect that mortgages or title insurance policies on all of our material properties will be in place at the time of the issuance of the Notes. Any issues that we are not able to resolve in connection with the issuance of such mortgages and title insurance policies may impact the value of the Collateral. Delivery of such mortgages after the Issue Date of the Notes increases the risk that the liens granted by those mortgages could be avoided.

There will be no independent assurance prior to issuance of the Notes that all properties contemplated to be mortgaged as security for the Notes will be mortgaged, or that we hold the real property interests we represent we hold or that we may mortgage such interests, or that there will be no lien encumbering such real property interests other than those permitted by the Indenture.

If we are unable to obtain any mortgage or title insurance policy on any of the real property intended to constitute Collateral for the Notes and the Guarantees, the value of the Collateral securing the Notes and the Guarantees will be significantly reduced.

We are required to put such mortgages in place and to obtain title insurance policies on the properties within 90 days following the closing date of the offering.

Any future pledge of Collateral in favor of the collateral agent for the Notes for its benefit and for the benefit of the trustee and the holders of the Notes, including pursuant to the mortgages, which we are not required to deliver to the collateral agent for the Notes until 90 days after the closing date, and the other security documents delivered after the date of the Indenture governing the Notes, could be avoidable in bankruptcy. If we or any Guarantor were to become subject to a bankruptcy proceeding after the Issue Date of the Notes, any mortgage or security interest in other Collateral delivered after the Issue Date of the Notes would face a greater risk than security interests in place on the Issue Date of being avoided by the pledgor (as debtor in possession) or by its trustee in bankruptcy as a preference under bankruptcy law if certain events or circumstances exist or occur, including if the pledgor is insolvent at the time of the pledge, the pledge permits the holders of the Notes to receive a greater recovery than if the pledge had not been given and a bankruptcy proceeding in respect of the pledgor is commenced within 90 days following the pledge (or one year before commencement of a bankruptcy proceeding if the creditor that benefited from the guarantee or lien is an "insider" under the U.S. Bankruptcy Code). In bankruptcy proceedings commenced within 90 days of lien perfection, a lien given to secure previously existing indebtedness is materially more likely to be avoided as a preference by the bankruptcy court than if delivered and promptly recorded on the Issue Date.

Accordingly, if we or any Guarantor were to file for bankruptcy protection after the Issue Date of the outstanding Notes and the liens had been perfected less than 90 days before the commencement of such bankruptcy proceeding, the liens securing the Notes may be particularly subject to challenge as a result of having been delivered after the Issue Date. To the extent that such challenge succeeded, the holders of the Notes would lose the benefit of the security that the collateral was intended to provide. Please note that this risk is not mitigated by the purchase of title insurance policies, which specifically exclude such matters.

Enforcement of the Guarantees across multiple jurisdictions may be difficult.

The Notes will be issued by the Issuer, a company organized under the laws of Spain, and guaranteed by the Guarantors, which are organized or incorporated under the laws of multiple jurisdictions. In the event of a bankruptcy, insolvency or similar event, proceedings could be initiated in any of these jurisdictions. The rights of holders of the Notes under the Guarantees will thus be subject to the laws of a number of jurisdictions, and it may be difficult to enforce such rights in multiple bankruptcy, insolvency and other similar proceedings. Moreover, such multi-jurisdictional proceedings are typically complex and costly for creditors' rights. In addition, the bankruptcy, insolvency, administration and other laws of our jurisdiction of organization and the jurisdiction of organization of the Guarantors may be materially different from, or in conflict with, one another, including creditor's rights, priority of creditors, the ability to obtain post-petition interest and the duration of the insolvency proceeding. The application of these various laws in multiple jurisdictions could trigger disputes over which jurisdictions' law should apply and could adversely affect the ability to realize any recovery under the Notes and the Guarantees.

Your ability to serve process and enforce civil liabilities under U.S. securities laws may be limited.

The Issuer is a company organized under the laws of Spain, and many of our subsidiaries are also incorporated outside of the United States. A substantial portion of our assets and the assets of our subsidiaries are located outside of the United States. In addition, nearly all of our directors and officers and certain of our subsidiaries' officers and directors are nationals or residents of countries other than the United States, and all or a substantial portion of such persons' assets are located outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon us or certain of our subsidiaries or their directors or officers with respect to matters arising under the Securities Act or to enforce against them judgments of courts of the United States predicated upon civil liability under the Securities Act. It may also be difficult to recover fully in the United States on any judgment rendered against such persons or against us or certain of our subsidiaries.

In addition, there is doubt as to the enforceability in Spain of original actions, or of actions for enforcement of judgments of U.S. courts of liabilities, predicated solely upon the securities laws of the United States. If a judgment was obtained outside Spain and efforts were made to enforce the judgment in Spain, there is some doubt that Spanish courts would agree to recognize and enforce a foreign judgment. Accordingly, even if you obtain a favorable judgment in a U.S. court, you may be required to re-litigate your claim in Spain. See also "Service of Process and Enforcement of Civil Liabilities".

Relevant insolvency and administrative laws may not be favorable to creditors, including holders of Notes, as the case may be, as insolvency laws of the jurisdictions in which you are familiar and may limit your ability to enforce your rights under the Notes and the Guarantees.

The Issuer is organized in Spain and certain of the Guarantors are incorporated or organized in Spain. Some of our subsidiaries are incorporated or organized in jurisdictions other than those listed above and are subject to the insolvency laws of such jurisdictions. The insolvency laws of these jurisdictions may not be as favorable to your interests as creditors as the bankruptcy laws of the United States, Ireland or certain other jurisdictions. In addition, there can be no assurance as to how the insolvency laws of these jurisdictions will be applied in relation to one another. In the event that any one or more of the Issuer or the Guarantors or the Issuer's other subsidiaries experience financial difficulty, it is not possible to predict with certainty in which jurisdiction or jurisdictions insolvency or similar proceedings would be commenced, or the outcome of such proceedings. Applicable insolvency laws may affect the enforceability of the obligations of the Issuer, the Guarantors and their respective shareholders. Prospective investors in the Notes should consult their own legal advisors with respect to such considerations.

In particular, under Spanish law, a debtor shall apply for an insolvency proceeding, known as "*concurso de acreedores*" when it is not able to meet its current obligations or when it expects that it will shortly be unable to do so. The filing of such a declaration of insolvency may be requested by the debtor, any creditor thereof and certain interested third parties. If filed by the debtor, the insolvency is deemed "voluntary" (*concurso voluntario*) and, if filed by a third party, the insolvency is deemed "mandatory" (*concurso necesario*). The directors of the debtor company shall request the insolvency within two months from the moment they knew, or ought to have known, of the insolvency situation (or file with the insolvency court a communication under 5 Bis of the Spanish Insolvency Law disclosing that the debtor company has commenced negotiations with its creditors to agree to a refinancing agreement or an advanced proposal of settlement agreement (*convenio*), to obtain an additional period of three months to negotiate with its creditors).

The debtor may file for insolvency (or 5 Bis communication) as a protective measure in order to avoid (i) the attachment of its assets or (ii) certain enforcement actions that could be taken by its creditors.

Upon receipt of an insolvency petition by a creditor, the insolvency court may issue provisional interim measures to protect the assets of the debtor and may request a guarantee from the petitioning creditor asking for the adoption of such measures to cover damages caused by the preliminary protective measures.

In case of voluntary insolvency (*concurso voluntario*), the debtor company will usually maintain administrative control of its affairs, however, certain management decisions will be subject to the court administrator or receiver's authorization (*administración concursal*). In case of necessary insolvency (*concurso necesario*), the receiver will usually assume the administration of the debtor company, unless the insolvency court decides otherwise.

Unless otherwise provided by certain specific rules applicable to a certain type of contracts, creditors will not be able to accelerate the maturity of their credits based only on the declaration of the insolvency (*declaración de concurso*) of the debtor. Any provision to the contrary will be null and void.

The debt will cease to accrue interest from the declaration of insolvency, except for such debt secured with security rights in rem, and up to the amount obtained from the enforcement of the security.

Set-off is prohibited unless the requirements for the set-off were satisfied prior to the declaration of insolvency or the claim of the insolvent is governed by a law that permits set-off.

As a general rule, insolvency proceedings are not compatible with other enforcement proceedings. When compatible, in order to protect the interests of the debtor and its creditors, the law extends the jurisdiction of the court dealing with insolvency proceedings, which is, then, legally authorized to handle any enforcement proceedings or interim measures affecting the debtor's assets (whether based upon civil, labor or administrative law).

The court order declaring the insolvency of the debtor shall contain an express request for the creditors to communicate and declare to the receivers any debts owed to them, within a one-month period starting from the date after the publication of the declaration of insolvency in the State Official Gazette (*Boletín Oficial del Estado*), providing documentation to justify such credits. Based on the documentation provided by the creditors, the insolvency receivers draw up a list of acknowledged creditors and classify them according to the categories established under Spanish Insolvency Law as follows: (i) debts against the

insolvency estate, (ii) debt benefiting from special privileges, (iii) debt benefiting from general privileges, (iv) ordinary debt and (v) subordinated debt.

Those claims classified within the insolvency proceeding as ordinary claims shall rank ahead of subordinated claims but behind creditors benefiting from general privileges, creditors against the estate and creditors benefiting from special privileges (who are given preferential rights in respect of the underlying assets). In the case of insolvency of the Issuer, it is intended that the claims against the Issuer under the Notes will be classified as specially privileged claims (to the extent of the value of the Collateral) and rank pari passu with other outstanding secured claims with the same Collateral (to the extent of the value of the Collateral). However, certain actions or circumstances which are beyond the control of the Issuer may affect the relevant classification of the claims under the Notes including among other things, as follows:

(i) any claim may become subordinated if it is not reported to the receivers within one month from the day following the publication of the court order declaring the insolvency in the Spanish Official Gazette (*Boletín Oficial del Estado*);

(ii) a creditor's rights will be subordinated to the preferential and ordinary debts of a debtor in an insolvency proceeding if such creditor is determined to be a "specially related" party to the debtor. Under Spanish law, one factor considered in determining if a party is "specially related" is (i) whether such party holds, directly and/or indirectly, more than 10% of the share capital (*capital social*) of the debtor (for companies that are not listed; 5% for companies that are listed) at the time the credit right under dispute in the insolvency scenario arises or (ii) in the event of companies belonging to the same group as the insolvent debtor and their common shareholders, provided that such shareholders meet, directly and/or indirectly, the minimum shareholding requirements set out before. Additionally, under Spanish law payments made under an equitably subordinated loan preceding the bankruptcy of an obligor may in certain circumstances be clawed back; and

(iii) interest (including under the Notes) shall cease to accrue as from the date of the declaration of insolvency and any amount of interest accrued up to such date shall become subordinated.

Refinancing agreements (out-of-court workouts) may be court sanctioned (*homologado*) by the commercial court competent to conduct an eventual insolvency proceeding of the debtor, upon request by the debtor or by any creditor having entered into such refinancing agreements, if (i) they entail a significant enlargement of debtor's credit or a change in the financial structure by either granting a longer term or replacing previous claims with new ones; (ii) they have been entered into by creditors (whether or not subject to financial supervision (excluding public law claims, labor claims and commercial claims (*acreedores por operaciones comerciales*, e.g., suppliers) in order to calculate whether the required thresholds are met)) holding financial liabilities representing, at least, 51% of the debtor's financial liabilities at the date of the refinancing agreement; (iii) the debtor's auditor issues a certificate acknowledging that the required thresholds have been reached; and (iv) the agreement is formalized in a public instrument. Court-sanctioned refinancing agreements may not be subject to a clawback action. As to the rules to calculate whether the required thresholds have been reached, all creditors holding an interest in a syndicated loan will be deemed to have adhered to the refinancing agreement if it is favorably voted upon by at least 75% of the liabilities represented by the syndicate, or a lower majority if so established in the syndicated loan agreement.

The following cramdown effects of homologated refinancing agreements may be imposed on (i) dissenting or non-participating unsecured financial creditors or (ii) on secured financial creditors to the extent of that part of their secured claim not covered by their security interest, as such security interest is to be valued in accordance with the rules set out by the latest reform of the Spanish Insolvency Law:

(a) If the court-sanctioned refinancing agreement is supported by creditors representing at least 60% of the debtor's aggregate financial liabilities, stays of payments may be granted for up to five years or the debt converted into profit participation loans (*préstamos participativos*) of duration up to five years;

(b) Further, these effects may also be extended to the amount of secured claims (up to the value of the security interest) of non-participating or dissenting creditors, when the agreement has been entered into by financial creditors holding secured claims which represent at least 65% of the value of all secured claims of the debtor;

(c) If the court-sanctioned refinancing agreement is supported by creditors representing at least 75% of the debtor's aggregate financial liabilities:

(i) a deferral either of principal, interest or any other owed amount for a period of 5 or more years (but not more than ten years);

(ii) haircuts (note that a cap has not been established);

(iii) capitalization of debt (debt-to-equity swap). Nevertheless, those creditors that have not supported such refinancing agreement (either because they did not sign the agreement or because they oppose it) may choose between (i) the debt for equity swap contemplated by the refinancing agreement or (ii) a discharge of their claims equal to the nominal amount (including any share premium) of the shares/quota shares that would have corresponded to that creditor as a consequence of the relevant debt for equity swap;

(iv) conversion of debt into profit participation loans of up to ten years, convertible obligations, subordinated loans, payment in kind facilities or in any other financial instrument with a ranking, maturity and features different from the original debt; and

(v) assignment of assets or rights as assignment in kind for total or partial payment of the debt (*datio pro soluto* or debt-to-asset swap).

Further, these effects may also be extended to the amount of secured claims (up to the value of the security interest) of non-participating or dissenting creditors, when the agreement has been entered into by financial creditors holding secured claims which represent at least 80% of the value of all secured claims of the debtor.

In addition, if Grifols Worldwide Operations Limited becomes subject to an insolvency proceeding and has obligations to creditors that are treated under Irish law as creditors that are senior relative to the holders of the Notes, the holders of the Notes may suffer losses as a result of their subordinated status during such insolvency proceedings. In addition, any investment in the Notes does not have the status of a bank deposit in Ireland and is not within the scope of the deposit protection scheme operated by the Central Bank of Ireland. Grifols Worldwide Operations Limited is not regulated by the Central Bank of Ireland by virtue of it acting as a guarantor in relation to the Notes.

Examinership is a court procedure available under the Companies Act 2014 (as amended), or the Companies Act, to facilitate the survival of Irish companies in financial difficulties. Grifols Worldwide Operations Limited, the directors of Grifols Worldwide Operations Limited, a contingent, prospective or actual creditor of Grifols Worldwide Operations Limited, or shareholders of Grifols Worldwide Operations Limited holding, at the date of presentation of the petition, not less than one-tenth of the voting share capital of Grifols Worldwide Operations Limited are each entitled to petition the court for the appointment of an examiner. The examiner, once appointed, has the power to set aside contracts and arrangements entered into by the company after this appointment and, in certain circumstances, can avoid a negative pledge given by the company prior to this appointment. During the period of protection, the examiner will formulate proposals for a compromise or scheme of arrangement to assist the survival of the company or the whole or any part of its undertaking as a going concern. During the period of protection a secured creditor may be precluded from taking steps to enforce any security. A scheme of arrangement may be approved by the Irish High Court when at least one class of creditors whose interests or claims would be impaired by implementation of the proposals has voted in favor of the proposals and the Irish High Court is satisfied that such proposals are fair and equitable in relation to any class of members or creditors who have not accepted the proposals and whose interests would be impaired by implementation of the scheme of arrangement and the proposals are not unfairly prejudicial to the interests of any interested party.

The primary risks to the holders of Notes if an examiner were appointed to Grifols Worldwide Operations Limited are the potential for a compromise or scheme of arrangement being approved involving the writing down or rescheduling of the debt due by Grifols Worldwide Operations Limited to the holders of the Notes; the potential prohibition on the enforcement of security over the property of Grifols Worldwide Operations Limited; the potential for the examiner to seek to set aside any negative pledge in the Notes prohibiting the creation of security or the incurring of borrowings by Grifols Worldwide Operations Limited to enable the examiner to borrow to fund the company during the protection period; and in the event that a scheme of arrangement is not approved and Grifols Worldwide Operations Limited subsequently goes into liquidation, the examiner's remuneration and expenses (including certain

borrowings incurred by the examiner on behalf of Grifols Worldwide Operations Limited and approved by the Irish High Court) will take priority over the monies and liabilities which from time to time are or may become due, owing or payable by Grifols Worldwide Operations Limited to holders of Notes.

There are risks associated with floating charges under Irish law.

Under Irish law, fixed charge security has a number of advantages over floating charge security:

(a) An examiner appointed to the company which granted the floating charge can dispose of floating charge assets for cash or collect receivables charged by way of floating charge and use the proceeds and/or cash subject to a floating charge, to meet examination expenses (which can include the costs of continuing to operate the charging company's business while in examination) in priority to the claims of the floating charge holder; (b) a fixed charge over assets, even if created after the date of a floating charge over the assets, may rank prior to the floating charge over the relevant assets; (c) they have weak priority against purchasers (who are not on notice of any negative pledge contained in the floating charge) and chargees of the assets concerned and against lien holders, execution creditors and creditors with rights of set-off; (d) general costs and expenses (including the liquidator's remuneration) properly incurred in a winding-up are payable out of floating charge assets to the extent the assets of the company available for creditors generally are otherwise insufficient to meet them (subject to certain restrictions for the costs of litigation) in priority to floating charge claims; (e) until the floating charge security crystallizes, a company is entitled to deal with assets that are subject to floating charge security in the ordinary course of its business, meaning that such assets can be effectively disposed of by the charging company so as to give a third party good title to the assets free of the floating charge; (f) floating charge security is subject to certain challenges under Irish insolvency law; and (g) floating charge security is subject to the claims of preferential creditors (such as occupational pension scheme contributions and salaries owed to employees (subject to a cap per employee) and holiday pay owed to employees).

Under Irish law there is a possibility that a court could recharacterize as floating charges any security interests expressed to be created by a Security Document as fixed charges where the chargee does not have the requisite degree of control over the relevant chargor's ability to deal with the relevant assets and the proceeds thereof or does not exercise such control in practice as the description given to the charges in the relevant security document as fixed charges is not determinative. Where the chargor is free to deal with the secured assets without the consent of the chargee, the court is likely to hold that the security interest in question constitutes a floating charge, notwithstanding that it may be described as a fixed charge.

The granting of security by an Irish company can be challenged.

There are circumstances under Irish insolvency law in which the granting by an Irish company of security can be challenged. In most cases this will only arise if an examiner or a liquidator is appointed to the company within a specified period (as set out in more detail below) of the granting of the security and, in addition, the company was "unable to pay its debts" when the security interest was granted or "unable to pay its debts" as a result.

A company will be "unable to pay its debts" if a statutory demand for over €10,000 is served on the company by a creditor (a statutory demand for over €20,000 is made by two or more creditors) and remains unsatisfied for 21 days or an execution on or other process issued on a judgment, decree or order of a court in favor of a creditor is returned unsatisfied in whole or in part or it is proved to the court's satisfaction that the company is not able to pay its debts as they fall due or that the value of the company's assets is less than the amount of its liabilities (taking into account contingent and prospective liabilities).

The following potential grounds for challenge may apply to security interests:

- *Preference.* Under Irish insolvency law, a liquidator of a company could apply to the court for an order to set aside a security interest granted by such company (or give other relief) on the grounds such security interest constituted a preference. The grant of a security interest is a preference if it has the effect of placing a creditor (or a surety or guarantor of the company) in a better position in the event of the company's insolvent liquidation than if the security interest had not been granted. For a challenge to be made, the preferential transaction must be entered into within the period of six-month period ending with the onset of insolvency (as defined in section 604 of the Companies Acts 2014 (as amended)) if the beneficiary of the security interest is not a connected person or two years if the beneficiary is a connected person. A court will not make an order in respect of a preference of a person unless it is satisfied the company was influenced in deciding to give it by a desire to produce

the "better position" for that person. Case law suggests there must be a desire to prefer one creditor over another and not just other commercial motives even if they had the inevitable result of producing the better position. Subject to this, if the court determines that the transaction was a preference, the court can make such order as it thinks fit to restore the position to what it would have been if that preference had not been given (which could include setting aside the security interests). There is protection for a third party which benefits from the transaction and acted in good faith for value. In any proceedings, it is for the liquidator to demonstrate that the Irish company was unable to pay its debts and that the company was influenced by a desire to produce the preferential effect, unless the beneficiary of the transaction was a connected person, in which case there is a presumption that the company was influenced by a desire to produce the preferential effect and the connected person must demonstrate in such proceedings that there was no such influence.

- *Transaction Defrauding Creditors.* Under section 608 of the Companies Act 2014 (as amended), if in a liquidation, receivership or examinership of any company if it can be shown to the satisfaction of the court that any property of the company of any kind whatsoever was disposed of either by way of conveyance, transfer, mortgage, security, loan or in any way whatsoever whether by act or omission, direct or indirect, and that the effect of such disposal was to perpetrate a fraud on the company, its creditors or members, the court may, if it deems it just and equitable to do so, order any person who appears to have the use, control or possession of such property or the proceeds of the sale or development thereof to deliver it or pay a sum in respect of it to the relevant insolvency officer (or other applicant, which include a creditor or contributory) under such terms or conditions as the court sees fit.
- *Grant of Floating Charge.* Under Irish insolvency law, if an Irish company is unable to pay its debts at the time of (or as a result of) granting a floating charge then such floating charge can be avoided if it was granted in the period of one year ending with the onset of insolvency (as defined in section 597 of the Companies Act 2014, (as amended)). The floating charge will, however, be validated to the extent of the value of the consideration provided for the creation of the charge in the form of money paid to, or goods or services supplied to, or any discharge or reduction of any debt of, the relevant Irish company at the same time as or after the creation of the floating charge plus interest payable on such amounts. Where the floating charge is granted to a "connected person" the charge can be challenged if given within two years of the onset of insolvency and the prerequisite to challenge that the company is unable to pay its debts does not apply.
- *Irish Share Mortgage.* The security over the shares in Grifols Worldwide Operations Limited purports to create, amongst other security, equitable mortgages over the shares in Grifols Worldwide Operations Limited. An equitable mortgage has certain disadvantages compared to a legal charge or mortgage. For example, a prior equitable interest will take priority over the Irish Share Mortgage. Searches are not capable of revealing whether any prior security interests have been created over shares in Grifols Worldwide Operations Limited.

Income payable under the Notes to Spanish resident taxpayers may be subject to withholding.

We consider that, pursuant to the provisions of the Royal Decree 1065/2007, as amended by Royal Decree 1145/2011, we are not obliged to withhold taxes in Spain on any interest paid on the Notes to any holder of Notes, irrespective of whether such holder of Notes is tax resident in Spain. The foregoing is subject to the paying agent complying with certain information procedures described in "Taxation—Spanish Taxation—Disclosure of Information in Connection with the Notes" below and to us receiving such information in a timely manner. We and the paying agent will, to the extent applicable, comply with the relevant procedures to facilitate the collection of information concerning the Notes. The procedures may be modified, amended or supplemented to, among other reasons, reflect a change in applicable Spanish law, regulations, rulings or interpretation thereof. Under Royal Decree 1065/2007, as amended, it is no longer necessary to provide an issuer with information regarding the identity and the tax residence of an investor or the amount of interest paid to it in order for the issuer to make payments free from Spanish withholding tax, provided that the securities: (i) are regarded as listed debt securities issued under Law 10/2014; and (ii) are initially registered at a foreign clearing and settlement entity that is recognized under Spanish regulations or under those of another OECD member state. We expect that the Notes will meet the requirements referred to in (i) and (ii) above and that, consequently, payments made by us to holders of Notes should be paid free of Spanish withholding tax, provided the paying agent complies with the procedural requirements referred to above. In the event a payment in respect of the Notes is subject to Spanish withholding tax, we will pay the relevant holder such additional amounts as may be necessary in

order that the net amount received by such holder after such withholding equals the sum of the respective amounts of principal, premium, if any, and interest, if any, which would otherwise have been receivable in respect of the Notes in the absence of such withholding, except as provided in "Description of Notes".

Should the Spanish Tax Authorities maintain a different opinion as to the application by us of withholding to payments made to Spanish tax residents (individuals subject to Personal Income Tax—*Impuesto sobre la Renta de las Personas Físicas*—and entities subject to Spanish Corporate Income Tax—*Impuesto sobre Sociedades*), we, with immediate effect, will make the appropriate withholding. Should this be the case, identification of holders of Notes may be required and the procedures, if any, for the collection of relevant information will be applied by us (to the extent required) so that we can comply with our obligations under the applicable legislation as interpreted by the Spanish Tax Authorities. Should the procedures for the collection of the information relating to holders of Notes apply, holders of Notes will be informed of such new procedures and their implications.

Notwithstanding the above, in the case of Notes held by Spanish tax resident individuals (and, by Spanish entities subject to Spanish Corporate Income Tax, should the Notes be deemed to have been placed totally or partially in Spain according to the criteria set out by the Spanish Directorate General of Taxes—*Dirección General de Tributos*—in the tax ruling dated July 27, 2004) and deposited with a Spanish resident entity acting as depositary or custodian, payments in respect of such Notes may be subject to withholding by such depositary or custodian (currently 19 percent). Holders of Notes must seek their own advice to ensure that they comply with all procedures to ensure the correct tax treatment of their Notes. No responsibility in any such respect will be assumed by us or the initial purchasers.

It is unclear whether the Proposed Financial Transactions Tax applies to the Notes.

On February 14, 2013, the European Commission published a proposal ("the Commission's Proposal"), for a Directive for a common Financial Transactions Tax, or FTT, in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia, (the "Participating Member States"). However, Estonia has since stated that it will not participate.

The Commission's Proposal has a broad scope and could, if introduced, apply to certain dealings in Notes (including secondary market transactions) in certain circumstances. The issuance and subscription of Notes should, however, be exempt. Under the Commission's Proposal, the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in Notes where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, "established" in a participating Member State in a broad range of circumstances, including (a) by transacting with a person established in a participating Member State or (b) where the financial instrument that is subject to the dealings is issued in a participating Member State.

However, the FTT proposal remains subject to negotiation between participating Member States. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate. Prospective holders of Notes are advised to seek their own professional advice in relation to the FTT.

Market perceptions concerning the instability of the euro, the potential re-introduction of individual currencies within the Eurozone, or the potential dissolution of the euro entirely, could have adverse consequences for us with respect to our outstanding euro denominated debt obligations.

Developments in the Eurozone have exacerbated the ongoing global economic crisis. Financial markets and the supply of credit may continue to be negatively impacted by ongoing fears surrounding the sovereign debts and/or fiscal deficits of several countries in Europe (primarily Greece, Ireland, Italy, Portugal and Spain), the possibility of further downgrading of, or defaults on, sovereign debt, concerns about a slowdown in growth in certain economies and uncertainties regarding the overall stability of the euro and the sustainability of the euro as a single currency given the diverse economic and political circumstances in individual Member States. Governments and regulators have implemented austerity programs and other remedial measures to respond to the Eurozone debt crisis and stabilize the financial system, but the actual impact of such programs and measures are difficult to predict. If the Eurozone debt crisis is not resolved, it is possible that one or more countries may default on their debt obligations and/or cease using the euro and re-establish their own national currency or that the Eurozone may collapse. If such an event were to occur, it is possible that there would be significant, extended and generalized market dislocation, which may have a material adverse effect on our business, results of operations and financial

condition. In addition, the departure of one or more countries from the Eurozone may lead to the imposition of, inter alia, exchange rate control laws. Should the euro dissolve entirely, the legal and contractual consequences for holders of euro denominated obligations and for parties subject to other contractual provisions referencing the euro, such as supply contracts, would be determined by laws in effect at such time. These potential developments, or market perceptions concerning these and related issues, could adversely affect our trading environment and the value of the Notes, and could have adverse consequences for us with respect to our outstanding euro denominated debt obligations, which could adversely affect our financial condition.

The United Kingdom's vote in favor of withdrawing from the European Union could lead to increased market volatility which could adversely impact the market price of our Notes.

On June 23, 2016, the United Kingdom voted to leave the European Union in an advisory referendum, which is generally referred to as Brexit. On March 29, 2017, the United Kingdom delivered notice under Article 50 of the Lisbon Treaty of its intent to leave the European Union, beginning a two year negotiation period for the United Kingdom and the 27 remaining members of the European Union to reach agreement on the terms of the exit. The ultimate impact of the "leave" vote will depend on terms that are negotiated in relation to the United Kingdom's future relationship with the European Union.

Brexit may lead to legal uncertainty and potentially divergent laws and regulations between the United Kingdom and the European Union, as the United Kingdom determines which European Union laws to replicate or replace. We cannot predict whether or not the United Kingdom will significantly alter its current laws and regulations in respect of the pharmaceutical industry and, if so, what impact any such alteration would have on us or our business. Moreover, we cannot predict the impact that Brexit will have on (i) the marketing of pharmaceutical products or (ii) the process to obtain regulatory approval in the United Kingdom for product candidates.

Brexit may also result in a reduction of funding to the EMA if the United Kingdom no longer makes financial contributions to European institutions, such as the EMA. If United Kingdom funding is so reduced, it could create delays in the EMA issuing regulatory approvals for our product candidates and, accordingly, have a material adverse effect on our business, financial position, results of operations and future growth prospects. As a result of this uncertainty, financial markets could experience significant volatility which could adversely affect the market price of our Notes.

In addition, following the Brexit vote, the European Union decided to move the headquarters of the EMA from the United Kingdom to the Netherlands in March 2019. A significant percentage of the current employees of the EMA decided not to make the move to the Netherlands. This raised the possibility that new drug approvals in the European Union could be delayed as a result.

The phasing out and ultimate replacement of LIBOR with an alternative reference rate and changes in the manner of calculating other reference rates may adversely impact the value of loans and other financial instruments we hold that are linked to LIBOR or other reference rates in ways that are difficult to predict and could adversely impact our financial condition and results of operations.

In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out Libor by the end of 2021, and for LIBOR to be replaced with an alternative reference rate that will be calculated in a different manner. Similar changes have occurred or may occur with respect to other reference rates. It is not currently possible to determine whether, or to what extent, any such changes would impact the value of any loans, derivatives and other financial obligations or extensions of credit we hold or that are due to us that are linked to LIBOR or other reference rates or whether, or to what extent, such changes would impact our business, financial condition, results of operations or future prospects.

Investors may face foreign exchange risks by investing in the Notes.

The Notes will be denominated and payable in euro. If investors measure their investment returns by reference to a currency other than euro, an investment in the Notes will entail foreign exchange-related risks due to, among other factors, possible significant changes in the value of the euro relative to the currency by reference to which investors measure the return on their investments because of economic, political and other factors over which we have no control. Depreciation of the euro against the currency by reference to which investors measure the return on their investments could cause a decrease in the effective yield of the Notes below their stated coupon rates and could result in a loss to investors when the

return on the Notes is translated into the currency by reference to which the investors measure the return on their investments. Investments in the Notes denominated in a currency other than U.S. dollars by U.S. investors may also have important tax consequences as a result of foreign exchange gains or losses, if any. See "Taxation—Certain U.S. Federal Income Tax Considerations".

The Notes may not be listed or remain listed on Euronext Dublin's Global Exchange Market (the "Exchange").

We intend to list and maintain the listing of the Notes on the Exchange, as long as the Notes are outstanding, we cannot assure you that the Notes will be listed or remain listed. If we cannot list or maintain the listing of the Notes on the Exchange or it becomes unduly onerous to maintain such listing, we may cease to maintain such listing on the Exchange, provided that we will use commercially reasonable efforts to maintain the listing of the Notes on another "recognized stock exchange", although there can be no assurance that the Issuer will be able to do so. Although no assurance is made as to the liquidity of the Notes as a result of listing on the Exchange or another "recognized listing exchange" for high yield issuers in accordance with the Indenture, the delisting of the Notes from the Exchange or another stock exchange in accordance with the Indenture may have a material adverse effect on a holder's ability to resell the Notes in the secondary market.

Risks Relating to Providing Consolidated Accounts Only

The Issuer has requested that Euronext Dublin grant a derogation under Rule 3.3(3)(c) of the Euronext Dublin Global Exchange Market Listing and Admission to Trading Rules for Debt Securities from the requirement for the guarantors to include their individual financial statements in these listing particulars. The accounts of the guarantors have been included in the consolidated accounts for the Issuer, which are attached hereto. However, as the non-guarantor subsidiaries represent more than 25% of the consolidated EBITDA of the group and more than 25% of the net assets of the group, the consolidated financial statements of the group may be of limited use in assessing the financial position of the guarantors.

Risks Relating to Our Business

Our manufacturing processes are complex and involve biological intermediates that may be susceptible to contamination and variations in yield.

Plasma is a raw material that is susceptible to damage and contamination and may contain human pathogens, any of which would render the plasma unsuitable for further manufacturing. For instance, contamination or improper storage of plasma by us or third-party suppliers may require us to destroy some of our raw material. If unsuitable plasma is not identified and discarded prior to its release to our manufacturing processes, it may be necessary to discard intermediate or finished product made from that plasma or to recall any finished product released to the market, resulting in a charge to cost of goods sold.

The manufacture of our plasma products is an extremely complex process of fractionation (separating the plasma into component proteins), purification, filling and finishing. Our products can become non-releasable or otherwise fail to meet our specifications through a failure of one or more of our product testing, manufacturing, process controls and quality assurance processes. We may detect instances in which an unreleased product was produced without adherence to our manufacturing procedures or plasma used in our production process was not collected or stored in a compliant manner consistent with cGMP (Current Good Marketing Practice) regulations enforced by the US Food and Drug Administration, or the FDA or other regulations, which would likely result in our determination that the impacted products should not be released and therefore should be destroyed.

Once we have manufactured our plasma-derived products, they must be handled carefully and kept at appropriate temperatures. Our failure, or the failure of third parties that supply, ship or distribute our products, to properly care for our plasma-derived products may require that such products be destroyed.

While we expect to write off small amounts of work-in-process inventories in the ordinary course of business due to the complex nature of plasma, our processes and our products, unanticipated events may lead to write-offs and other costs materially in excess of our expectations. Such write-offs and other costs could cause material fluctuations in our profitability. Furthermore, contamination of our products could cause investors, consumers or other third parties with whom we conduct business to lose confidence in the reliability of our manufacturing procedures, which could adversely affect our sales and profits. In addition, faulty or contaminated products that are unknowingly distributed could result in patient harm, threaten the reputation of our products and expose us to product liability damages and claims.

Due to the nature of plasma, there will be variations in the biologic properties of the plasma we collect or purchase for fractionation that may result in fluctuations in the obtainable yield of desired fractions, even if cGMP regulations are followed. Lower yields may limit production of our plasma-derived products due to capacity constraints. If such batches of plasma with lower yields impact production for extended periods, it may reduce the total capacity of product that we could market and increase our cost of goods sold, thereby reducing our profitability.

Our manufacture of intermediate immunoassay antigens and antibodies to screen human donated blood and blood products is also a complex biologic process, subject to substantial production risks. These processes typically involve an upstream or fermentation process and a downstream or purification process. Since in the upstream process we deal with living cells, we may face a contamination by undesired cells which would eventually translate in a low yield. Yields in general can also be greatly affected by the different nutrients compositions added to the reactors in this fermentation step. Likewise during the purification step, we can face low yields due to poor resins composition, equipment failure or procedural mistakes.

Once our products are approved and marketed, we must continually monitor them for signs that their use may result in serious and unexpected side effects, which could jeopardize our reputation and our ability to continue marketing our products. We may also be required to conduct post-approval clinical trials as a condition to licensing a product.

As for all pharmaceutical products, the use of our products sometimes produces undesirable side effects or adverse reactions or events (collectively, "adverse events"). For the most part, these adverse events are known, are expected to occur at some frequency and are described in the products' labeling. Known adverse events of a number of our products include allergic or anaphylactic reactions including shock and the transmission of infective agents. Further, the use of certain products sometimes produces additional adverse events, which are detailed below.

- The use of albumin sometimes produces the following adverse events: hypervolemia, circulatory overload, pulmonary edema, hyperhydration and allergic manifestations including urticaria, chills, fever and changes in respiration, pulse and blood pressure.
- The use of blood clotting Factor IX sometimes produces the following adverse events: the induction of neutralizing antibodies; thromboembolism, including myocardial infarction; disseminated intravascular coagulation; venous thrombosis and pulmonary embolism; and, in the case of treatment for immune tolerance induction, nephrotic syndrome.
- The use of the antihemophilic blood clotting factor, or Factor VIII, sometimes produces the following adverse events: the induction of neutralizing antibodies, thromboembolic events and hemolytic anemia or hemolysis.
- The use of intravenous immunoglobulin, or IVIG, sometimes produces the following adverse events: nausea, vomiting, asthenia, pyrexia, rigors, injection site reaction, allergic or anaphylactic reaction, aseptic meningitis, arthralgia, back pain, dizziness, headache, rash, pruritus, urticaria, hemolysis or hemolytic anemia, hyperproteinemia, increased serum viscosity and hyponatremia, thromboembolic reactions such as myocardial infarction, stroke, pulmonary embolism and deep vein thromboses, transfusion-related acute lung injury and renal dysfunction and acute renal failure.
- The use of anti-hepatitis B IVIG sometimes produces the following adverse events: thromboembolic reactions such as myocardial infarction, stroke, pulmonary embolism and deep vein thromboses, aseptic meningitis, hemolytic anemia or hemolysis and acute renal failure.
- The use of Koate®-DVI, which we license exclusively in the United States to Kedrion S.p.A, a corporation organized under the laws of Italy, sometimes produces the following adverse events: allergic reactions; tingling in the arm, ear and face; blurred vision; headache; nausea; stomach ache; and a jittery feeling.
- The use of Prolastin®, Prolastin®-C, alpha-1 proteinase inhibitor, or A1PI, sometimes produces the following adverse events: dyspnea, tachycardia, rash, chest pain, chills, influenza-like symptoms, hypersensitivity, hypotension and hypertension.

In addition, the use of our products may be associated with serious and unexpected adverse events, or with less serious reactions at a greater than expected frequency. This may be especially true when our products are used in critically ill patient populations. When these unexpected events are reported to us, we must undertake a thorough investigation to determine causality and implications for product safety. These events must also be specifically reported to the applicable regulatory authorities. If our evaluation concludes, or regulatory authorities perceive, that there is an unreasonable risk associated with the product, we would be obligated to withdraw the impacted lot(s) of that product. Furthermore, an unexpected adverse event caused by a new product may be recognized only after extensive use of the product, which could expose us to product liability risks, enforcement action by regulatory authorities and damage to our reputation.

Once we produce a product, we rely on physicians to prescribe and administer it as we have directed and for the indications described on the labeling. It is not, however, unusual for physicians to prescribe our products for unapproved, or off-label, uses or in a manner that is inconsistent with our directions. To the extent such off-label uses and departures from our administration directions become pervasive and produce results such as reduced efficacy or other adverse effects, the reputation of our products in the marketplace may suffer.

Our ability to continue manufacturing and distributing our products depends on our continued adherence to cGMP regulations at our facilities.

The manufacturing processes for our products are governed by detailed written procedures and governmental regulations that set forth cGMP requirements for blood, blood products and other products. Our quality operations unit monitors compliance with these procedures and regulations, and the conformance of materials, manufacturing intermediates and final products to their specifications. Failure to adhere to established procedures or regulations, or to meet a specification, could require that a product or material be rejected and destroyed.

Our adherence to cGMP regulations and the effectiveness of our quality systems are periodically assessed through inspections of our facilities by the U.S. Food and Drug Administration, the FDA, and analogous regulatory authorities of other countries. If deficiencies are noted during an inspection, we must take action to correct those deficiencies and to demonstrate to the regulatory authorities that our corrections have been effective. If serious deficiencies are noted or if we are unable to prevent recurrences, we may have to recall product or suspend operations until appropriate measures can be implemented. We are also required to report certain deviations from procedures to the FDA and even if we determine that the deviations were not material, the FDA could require us to take similar measures. Since cGMP reflects ever-evolving standards, we regularly need to update our manufacturing processes and procedures to comply with cGMP. These changes may cause us to incur costs without improving our profitability or the safety of our products. For example, more sensitive testing assays (if and when they become available) may be required or existing procedures or processes may require revalidation, all of which may be costly and time-consuming and could delay or prevent the manufacturing of a product or launch of a new product.

Changes in manufacturing processes, including a change in the location where the product is manufactured or a change of a third-party manufacturer, may require prior FDA review and approval or revalidation of the manufacturing processes and procedures in accordance with cGMP regulations. There may be comparable foreign requirements.

We received approval from the FDA to relocate existing immunodiagnostic manufacturing operations to a new consolidated manufacturing facility in Emeryville, California, or our Emeryville facility. The first approval from the FDA enabled the implementation of cGMP in fermentation, purification and bulk fill operations in the facility and the production of one recombinant HCV antigen. Additional submissions to the FDA are planned to relocate the production of other licensed recombinant protein products. The transition is targeted for completion in mid-2019, pending FDA approvals for the licensed antigens. Once the transition is complete, we will have transferred 21 products to the new Emeryville facility.

To validate our manufacturing processes and procedures following completion of our upgraded facilities, we must demonstrate that the processes and procedures at the upgraded facilities are comparable to those currently in place at our other facilities. To provide such a comparative analysis, both the existing processes and the processes that we expect to be implemented at our upgraded facilities must comply with the regulatory standards prevailing at the time that our expected upgrade is completed. In addition, regulatory requirements, including cGMP regulations, continually evolve. Failure to adjust our operations to conform to new standards as established and interpreted by applicable regulatory authorities would create a compliance risk that could impair our ability to sustain normal operations.

Regulatory authorities, including the FDA and the European Medicines Agency, or the EMA, routinely inspect our facilities to assess ongoing compliance with cGMP. If the FDA, the EMA or other regulatory authorities find our facilities to be out of compliance, our ongoing operations or plans to expand would be adversely affected.

A significant disruption in our supply of plasma could have a material adverse effect on our business and our growth plans.

The majority of our revenue depends on our access to U.S. source plasma (plasma obtained through plasmapheresis), the principal raw material for our plasma derivative products. Our ability to increase revenue depends substantially on increased access to plasma. If we are unable to obtain sufficient quantities of source plasma, we may be unable to find an alternative cost-effective source of plasma and we would be limited in our ability to maintain current manufacturing levels of plasma derivative products. As a result, we could experience a substantial decrease in net revenues or profit margins, a loss of customers, a negative effect on our reputation as a reliable supplier of plasma derivative products or a substantial delay in our production growth plans.

Our current business plan envisages an increase in the production of plasma derivative products, which depends on our ability to increase plasma collections or improve product yield. The ability to increase plasma collections may be limited, our supply of plasma could be disrupted or the cost of plasma could increase substantially, as a result of numerous factors, including:

- *A reduction in the donor pool.* Regulators in most of the largest markets for plasma derivative products, including the United States, restrict the use of plasma collected from specific countries and regions in the manufacture of plasma derivative products. For example, the appearance of the variant Creutzfeldt-Jakob, or mad cow, disease resulted in the suspension of the use of plasma collected from U.K. residents and concern over the safety of blood products, which has led to increased domestic and foreign regulatory control over the collection and testing of plasma and the disqualification of certain segments of the population from the donor pool, significantly reducing the potential donor pool. The appearance of new viral strains could further reduce the potential donor pool. Also, improvements in socioeconomic conditions in the areas in which our and our suppliers' plasma collection centers are located could reduce the attractiveness of financial incentives for potential donors, resulting in increased fees paid to donors or a reduction in the number of donors.
- *Regulatory requirements.* See "—Disruption of the operations of our plasma collection centers would cause us to become supply-constrained and our financial performance would suffer".
- *Plasma supply sources.* In recent years, there has been vertical integration in the industry as plasma derivatives manufacturers have been acquiring plasma collection centers. Any significant disruption in the supply of plasma or an increased demand for plasma may require us to obtain plasma from alternative sources, which may not be available on a timely basis.

Disruption of the operations of our plasma collection centers would cause us to become supply-constrained and our financial performance would suffer.

In order for plasma to be used in the manufacturing of our products, the individual centers at which the plasma is collected must be licensed and approved by the regulatory authorities, such as the FDA and the EMA, of those countries in which we sell our products. When a new plasma collection center is opened, it must be inspected on an ongoing basis after its approval by the FDA and the EMA for compliance with cGMP and other regulatory requirements, and these regulatory requirements are subject to change. For example, an FDA final rule, effective May 23, 2016, addressed the collection of blood components, such as plasma, intended for transfusion or further manufacturing use, including requirements with respect to donor education, donor history and donor testing. While we believe that our centers have timely adopted the regulations, which generally reflected our existing approaches, the compliance efforts necessary for evolving requirements, such as these, may increase our costs. An unsatisfactory inspection could prevent a new center from being approved for operation or risk the suspension or revocation of an existing approval.

In order for a plasma collection center to maintain its governmental approval to operate, its operations must continue to conform to cGMP and other regulatory requirements. In the event that we determine a plasma collection center did not comply with cGMP in collecting plasma, we may be unable to use and may ultimately destroy plasma collected from that center, which would be recorded as a charge to cost of goods. Additionally, if noncompliance in the plasma collection process is identified after the impacted plasma has been pooled with compliant plasma from other sources, entire plasma pools, in-process intermediate materials and final products could be impacted. Consequently, we could experience significant inventory impairment provisions and write-offs.

We plan to continue to obtain our supplies of plasma for use in our manufacturing processes through collections at our plasma collection centers and through selective acquisitions or remodeling and

relocations of existing centers. This strategy is dependent upon our ability to successfully integrate new centers, to obtain FDA and other necessary approvals for any centers not yet approved by the FDA, to maintain a cGMP compliant environment in all centers and to attract donors to our centers.

Our ability to increase and improve the efficiency of production at our plasma collection centers may be affected by the following:

(i) changes in the economic environment and population in selected regions where we operate plasma collection centers

(ii) the entry of competitive centers into regions where we operate

(iii) our misjudging the demographic potential of individual regions where we expect to increase production and attract new donors

(iv) unexpected facility related challenges or

(v) unexpected management challenges at select plasma collection centers.

A significant portion of our net revenue has historically been derived from sales of our immunoglobulin products and we expect that they will continue to comprise a significant portion of our sales. Any adverse market event with respect to these products could have a material adverse effect on us.

We have historically derived a significant portion of our net revenues from our immunoglobulin products, including our IVIG products. In 2018, our IVIG products accounted for approximately 42% of our net revenues. If any of these IVIG products were to lose significant sales or were substantially or completely displaced in the market, we would lose a significant and material source of our net revenue. Similarly, if either Flebogamma® or Gamunex®-C/Gamunex® were to become the subject of litigation or an adverse governmental ruling requiring us to cease sales of it, our business could be adversely affected. Although we do not currently anticipate any significant decrease in the sales of any of these products, a significant decrease could result from plasma procurement and manufacturing issues resulting in lower product availability for sales and changing market conditions.

We face significant competition.

We face significant competition. Each of Takeda, CSL Behring, Kedrion Biopharma, Octapharma Plasma and Bio Products Laboratory Ltd. (BPL) now has a 10% liquid IVIG product in the United States. Both Octapharma and Bio Products Laboratory have launched 5% liquid IVIG products. As competition has increased, some of our competitors have discounted the price of IVIG products as many customers have become increasingly price sensitive with respect to IVIG products. If customers demand lower priced products, we may lose sales or be forced to lower our prices.

In 2015, the European Commission granted marketing authorization for CSL Behring's Respreeza® in all European Union member states. This product is a more concentrated intravenous formulation than the one we offer in Europe. Another competitor offers an inhaled formula and submitted a Marketing Authorization Application with the EMA at the beginning of 2016 that was withdrawn in June 2017. The same competitor proposed a Phase III protocol to the FDA in July 2017. Our current and future competitors may increase their sales, lower their prices, change their distribution model or improve their products, causing harm to our product sales and market share. Also, if the attrition rate of our A1PI patient base accelerates faster than we have forecasted, we would have fewer patients and lower sales volume.

Other new treatments, such as small molecules, monoclonal or recombinant products, may also be developed for indications for which our products are now used. Recombinant Factor VIII and Factor IX products, which are currently available and widely used in the United States and Europe, compete with our plasma-derived product in the treatment of hemophilia A and B and are perceived by many to have lower risks of disease transmission. Additional recombinant products and new small molecules, some with extended half-lives, could compete with our products and reduce the demand for our products. At the end of 2016, Kamada announced the BLA (Biologics License Application) submission of its rabies product to compete with our rabies hyperimmune product in the United States, and received FDA approval in August 2017. In February 2009, GTC Biotherapeutics obtained FDA approval of a competitive antithrombin III, or ATIII, a product derived from the milk of transgenic goats for the treatment of hereditary antithrombin deficiency. This product now directly competes with our product, Thrombate® III, which had previously been the only FDA-approved ATIII product. In addition, alternatives exist for albumin in its application as

a plasma volume expander. If an increased use of alternative products for Factor VIII, Factor IX or albumin makes it uneconomical to produce our plasma-derived products, or if further technological advances improve these products or create other competitive alternatives to our plasma derivative products, our financial condition and results of operations could be materially adversely affected.

We do not currently sell any recombinant products. We have recombinant versions of A1PI and plasmin in our pipeline, but we cannot be certain that any of these products will ever be approved or commercialized. As a result, our product offerings may remain plasma-derived, even if our competitors offer competing recombinant products. In October 2018 the FDA approved Genetech Inc's emicizumab-kxwh injection treatment, Hemlibra, a non-plasma product to control bleeding in patients with hemophilia A. The use of Hemlibra presents a potentially significant competitive risk for the use of plasma derived Factor VIII.

The introduction of products approved for alternative routes of administration, including the subcutaneous route of administration, may also adversely affect sales of our products. For example, CSL Behring and Takeda introduced a preparation of human immunoglobulin at a 20% concentration for the treatment of people who need replacement of antibodies and Takeda has an immune globulin with a recombinant human hyaluronidase indicated for the treatment of Primary Immunodeficiency (PI) in adults. According to the MRB, the global market for subcutaneous products is relatively small. Our 10% Gamunex® has FDA approval to be administered intravenously or subcutaneously and we obtained FDA approval for our 20% subcutaneous immunoglobulin (Xembify™) to treat patients with primary immunodeficiencies in July 2019. We expect to launch it in the fourth quarter of 2019.

We face competition from companies with greater financial resources.

We operate in highly competitive markets. Our principal competitors include Takeda, CSL Behring and Octapharma. Some of our competitors have significantly greater financial resources than us. As a result, they may be able to devote more funds to research and development and new production technologies, as well as to the promotion of their products and business. These competitors may also be able to sustain for longer periods a deliberate substantial reduction in the price of their products or services. The development by a competitor of a similar or superior product or increased pricing competition may result in a reduction in our net revenues or a decrease in our profit margins.

Technological changes in the production of plasma derivative and diagnostic products could render our production process uneconomical.

Technological advances have accelerated changes in recent years. Future technological developments could render our production processes uneconomical and may require us to invest substantial amounts of capital to upgrade our facilities. Such investments could have a material adverse effect on our financial condition and results of operations. In addition, we may not be able to fund such investments from existing funds or raise sufficient capital to make such investments.

The discovery of new pathogens could slow our growth and adversely affect profit margins.

The possible appearance of new pathogens could trigger the need for changes in our existing inactivation and production methods, including the administration of new detection tests. Such a development could result in delays in production until the new methods are in place, as well as increased costs that may not be readily passed on to our customers.

Product liability claims or product recalls involving our products or products we distribute could have a material adverse effect on our business.

Our business exposes us to the risk of product liability claims. We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and an even greater risk when we commercially sell any products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in any or all of the following:

- decreased demand for our products and any product candidates that we may develop
- injury to our reputation
- withdrawal of clinical trial participants
- costs to defend the related litigation

- substantial monetary awards to trial participants or patients
- loss of revenue and
- the inability to commercialize any products that we may develop.

Like many plasma fractionators, we have been, and may in the future be, involved in product liability or related claims relating to our products, including claims alleging the transmission of disease through the use of such products. Plasma is a biological matter that is capable of transmitting viruses and pathogens, whether known or unknown. Therefore, our plasma and plasma derivative products, if donors are not properly screened or if the plasma is not properly collected, tested, inactivated, processed, stored and transported, could cause serious disease and possibly death to the patient. Any transmission of disease through the use of one of our products or third-party products sold by us could result in claims by persons allegedly infected by such products.

Our potential product liability also extends to our Diagnostic and Hospital division products. In addition, we sell and distribute third-party products, and the laws of the jurisdictions where we sell or distribute such products could also expose us to product liability claims for those products. Furthermore, the presence of a defect in a product could require us to carry out a recall of such product.

A product liability claim or a product recall could result in substantial financial losses, negative reputational repercussions and an inability to retain customers. Although we have a program of insurance policies designed to protect us and our subsidiaries from product liability claims, and we self-insure a portion of this risk, claims made against our insurance policies could exceed our limits of coverage. We intend to expand our insurance coverage as our sales grow. However, as product liability insurance is expensive and can be difficult to obtain, a product liability claim could decrease our access to product liability insurance on acceptable terms. In turn, we may not be able to maintain insurance coverage at a reasonable cost and may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise.

Our ability to continue to produce safe and effective plasma derivative products depends on a plasma supply free of transmittable diseases.

Despite overlapping safeguards, including the screening of donors and other steps to remove or inactivate viruses and other infectious disease-causing agents, the risk of transmissible disease through plasma-derived products cannot be entirely eliminated. If a new infectious disease was to emerge in the human population, the regulatory and public health authorities could impose precautions to limit the transmission of the disease that would impair our ability to procure plasma, manufacture our products or both. Such precautionary measures could be taken before there is conclusive medical or scientific evidence that a disease poses a risk for plasma-derived products.

In recent years, new testing and viral inactivation methods have been developed that more effectively detect and inactivate infectious viruses in collected plasma. There can be no assurance, however, that such new testing and inactivation methods will adequately screen for, and inactivate, infectious agents in the plasma used in the production of our products.

Plasma and plasma derivative products are fragile, and improper handling of our plasma or plasma derivative products could adversely affect results of operations.

Plasma is a raw material that is susceptible to damage. Almost immediately after its collection from a donor, plasma is stored and transported at temperatures that are at least -20 degrees Celsius (-4 degrees Fahrenheit). Once we manufacture plasma derivative products, they must be handled carefully and kept at appropriate temperatures. Our failure, or the failure of third parties that supply, ship or distribute our plasma and plasma derivative products, to properly care for our plasma or plasma derivative products may require us to destroy some raw materials or products. If the volume of plasma or plasma derivative products damaged by such failures were to be significant, the loss of that plasma or those plasma derivative products could have a material adverse effect on our financial condition and results of operations.

Our future success depends on our ability to retain members of our senior management and to attract, retain and motivate qualified personnel.

We are highly dependent on the principal members of our executive and scientific teams. The loss of the services of any of these persons might impede the achievement of our research, development, operational

and commercialization objectives. In particular, we believe the loss of any member of our senior management team would significantly and negatively impact our business. We do not maintain "key person" insurance on any of our senior management.

Recruiting and retaining qualified operations, finance and accounting, scientific, clinical and sales and marketing personnel will be critical to our success. We may not be able to attract and retain these personnel on acceptable terms, given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. If we are unable to attract, retain and motivate qualified and experienced personnel, we could lose customers and suffer reduced profitability. Even if we are successful in attracting and retaining such personnel, competition for such employees may significantly increase our compensation costs and adversely affect our financial condition and results of operations.

cGMP regulations also require that the personnel we employ and hold responsible for product manufacturing, including, for example, the collection, processing, testing, storage or distribution of blood or blood components be adequate in number, educational background, training (including professional training as necessary) and experience, or a combination thereof, and have capabilities commensurate with their assigned functions, a thorough understanding of the procedures or control operations they perform, the necessary training or experience and adequate information concerning the application of relevant cGMP requirements to their individual responsibilities. Our failure to attract, retain and motivate qualified personnel may result in a regulatory violation, affect product quality, require the recall or market withdrawal of affected product or result in a suspension or termination of our license to market our products, or any combination thereof.

Our business requires substantial capital to operate and grow and to achieve our strategy of realizing increased operating leverage, including the completion of several large capital projects.

We have implemented several large capital projects to expand and improve our facilities and to improve the structure of our plasma collection centers in the United States. These projects may run over budget or be delayed. We cannot be certain that these projects will be completed in a timely manner or that we will maintain our compliance with cGMP regulations, and we may need to spend additional amounts to achieve compliance. Additionally, by the time these multi-year projects are completed, market conditions may differ significantly from our assumptions regarding the number of competitors, customer demand, alternative therapies, reimbursement and public policy, and as a result, capital returns might not be realized.

We also plan to continue to spend substantial sums on research and development, to obtain the approval of the FDA, and other regulatory agencies, for new indications for existing products, to develop new product delivery mechanisms for existing products and to develop innovative product additions. We face a number of obstacles to successfully converting these efforts into profitable products, including, but not limited to, the successful development of an experimental product for use in clinical trials, the design of clinical study protocols acceptable to the FDA and other regulatory agencies, the successful outcome of clinical trials, our ability to scale our manufacturing processes to produce commercial quantities or successfully transition technology, the approval of the FDA and other regulatory agencies of our products and our ability to successfully market an approved product or new indication.

For example, when a new product is approved, the FDA or other regulatory authorities may require post-approval clinical trials, sometimes called Phase IV clinical trials. If the results of such trials are unfavorable, this could result in the loss of the license to market the product, with a resulting loss of sales.

We are expecting significant capital spending as we are undertaking an investment plan that involves among other investments, cumulative industrial capital investments to expand the manufacturing capacities of the Bioscience division of approximately €400 million from 2019 through 2020 as part of our €1.4 billion 2018-2022 capital expenditure plan. The amount and timing of future capital spending is dependent upon a number of factors, including market conditions, regulatory requirements and the extent and timing of particular projects, among other things. Our ability to grow our business is dependent upon the timely completion of these projects and obtaining the requisite regulatory approvals.

We may not be able to develop some of our international operations successfully.

We currently conduct sales in over 100 countries. The successful operation of such geographically dispersed resources requires considerable management and financial resources. In particular, we must bridge our business culture to the business culture of each country in which we operate. In addition, international operations and the provision of services in foreign markets are subject to additional risks, such as changing market conditions, currency exchange rate fluctuations, trade barriers, exchange controls, regulatory changes, changes to tax regimes, foreign investment limitations, civil disturbances and war. Furthermore, if an area in which we have significant operations or an area into which we are looking to expand suffers an economic recession or currency devaluation, our net revenues and accounts receivable collections in that region will likely decline substantially or we may not be able to successfully expand or operate in that region.

We are susceptible to interest rate variations.

We use issuances of debt and bank borrowings as a source of funding. At December 31, 2018, $5.3 billion and €607 million of our senior interest bearing debt, which represented 81.2% of our senior interest bearing debt, bore interest at variable rates, at a spread over the London Interbank Offered Rate, or LIBOR, for our U.S. dollar denominated debt and at a spread over the Euro Interbank Offered Rate, or EURIBOR, for our euro denominated debt. Any increase in interest rates payable by us, which could be adversely affected by, among other things, our inability to meet certain financial ratios, would increase our interest expense and reduce our cash flow, which could materially adversely affect our financial condition and results of operations.

Our results of operations and financial condition may be affected by adverse changes in foreign currency exchange rates, especially a significant shift in the value of the euro as compared to the U.S. dollar.

A significant portion of our business is conducted in currencies other than our reporting currency, the euro. In 2018, €3.4 billion, or 75%, of our net revenue of €4.5 billion was denominated in U.S. dollars. We are also exposed to currency fluctuations with respect to other currencies, such as the British pound, the Brazilian real, the Canadian dollar and the Argentine, Mexican and Chilean pesos. Currency fluctuations among the euro, the U.S. dollar and the other currencies in which we do business result in foreign currency translation gains or losses that could be significant.

We are also exposed to risk based on the payment of U.S. dollar denominated indebtedness. At December 31, 2018, we had $5.3 billion of U.S. dollar denominated senior debt.

If the San Diego, Clayton, Emeryville, Los Angeles or Parets facilities were to suffer a crippling accident, or if a force majeure event materially affected our ability to operate and produce saleable products, a substantial part of our manufacturing capacity could be shut down for an extended period.

A substantial portion of our revenue is derived from plasma fractionation or products manufactured at our San Diego, Clayton, Emeryville, Los Angeles and Parets facilities. In addition, a substantial portion of our plasma supply is stored at facilities in City of Industry, California, as well as at our Clayton, North Carolina and Parets facilities. If any of these facilities were to be impacted by an accident or a force majeure event such as an earthquake, major fire, storm or explosion, major equipment failure or power failure lasting beyond the capabilities of our backup generators, our revenue would be materially adversely affected. In this situation, our manufacturing capacity could be shut down for an extended period and we could experience a loss of raw materials, work -in -process or finished goods inventory. Other force majeure events such as terrorist acts, influenza pandemic or similar events could also impede our ability to operate our business. In addition, in the event of the reconstruction of our Clayton, Los Angeles or Parets facilities or our plasma storage facilities, gaining the regulatory approval for such new facilities and the replenishment of raw material plasma could be time consuming. During this period, we would be unable to manufacture all of our products at other plants due to the need for FDA and foreign regulatory authority inspection and certification of such facilities and processes.

Our property damage and business interruption insurance may be insufficient to mitigate the losses from any such accident or force majeure event. We may also be unable to recover the value of the lost plasma or work-in-process inventories, as well as the sales opportunities from the products we would be unable to produce.

If we experience equipment difficulties or if the suppliers of our equipment or disposable goods fail to deliver key product components or supplies in a timely manner, our manufacturing ability would be impaired and our product sales could suffer.

We depend on a limited number of companies that supply and maintain our equipment and provide supplies such as chromatography resins, filter media, glass and stoppers used in the manufacture of our products. If our equipment should malfunction, the repair or replacement of the machinery may require substantial time and cost, which could disrupt our production and other operations. Our plasma collection centers rely on disposable goods supplied by third parties and information technology systems hosted by third parties. Our plasma collection centers cannot operate without an uninterrupted supply of these disposable goods and the operation of these systems. Alternative sources for key component parts or disposable goods may not be immediately available. And while we have experienced periodic outages of these systems, a material outage would affect our ability to operate our collection centers. Any new equipment or change in supplied materials may require revalidation by us or review and approval by the FDA or foreign regulatory authorities, including the EMA, which may be time-consuming and require additional capital and other resources. We may not be able to find an adequate alternative supplier in a reasonable time period, or on commercially acceptable terms, if at all. As a result, shipments of affected products may be limited or delayed. Our inability to obtain our key source supplies for the manufacture of products may require us to delay shipments of products, harm customer relationships and force us to curtail operations.

If our shipping or distribution channels were to become inaccessible due to a crippling accident, an act of terrorism, a strike, earthquake, major fire or storm, or any other force majeure event, our supply, production and distribution processes could be disrupted.

Not all shipping or distribution channels are equipped to transport plasma. If any of our shipping or distribution channels becomes inaccessible due to a crippling accident, an act of terrorism, a strike, earthquake, major fire or storm or any other force majeure event, we may experience disruptions in our continued supply of plasma and other raw materials, delays in our production process or a reduction in our ability to distribute our products directly to our customers.

We rely in large part on third parties for the sale, distribution and delivery of our products.

In the United States, we regularly enter into distribution, supply and fulfillment contracts with group purchasing organizations, or GPOs, home care companies, alternate infusion sites, hospital groups and others. We are highly dependent on these agreements for the successful sale, distribution and delivery of our products. For example, we rely principally on GPOs and on our distributors to sell our IVIG products. If such parties breach, terminate or otherwise fail to perform under these contracts, our ability to effectively distribute our products will be impaired and our business may be materially and adversely affected. In addition, through circumstances outside of our control, such as general economic decline, market saturation or increased competition, we may be unable to successfully renegotiate our contracts or secure terms which are as favorable to us. Furthermore, we rely in certain countries on distributors for sales of our products. Disagreements or difficulties with our distributors supporting our export business could result in a loss of sales.

Uncertainties regarding the general regulatory and legal environment, particularly in China, could adversely affect our business.

Our international operations are governed by local laws and regulations applicable to foreign investments and foreign-owned enterprises. Our business could be adversely affected by the interpretation and enforcement of and changes in these laws and regulations. These laws and regulations can be difficult to interpret. China has not developed integrated legal systems that cover all aspects of our activities. The Chinese legal system is based on written statutes. Prior court decisions may be cited for reference but have limited precedential value. Since 1979, Chinese legislation and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. Because these laws and regulations are relatively new, and because of the limited volume of published decisions and their nonbinding nature, the interpretation and enforcement of these laws and regulations are uncertain. In addition, the Chinese legal system is based in part on government policies and internal rules that may have retroactive effect and, in some cases, are not published at all. As a result, we may not be aware of any alleged violation of these policies and rules until after the alleged violation has occurred. Any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

We may not be able to commercialize products in development.

Before obtaining regulatory approval for the sale of our product candidates or for the marketing of existing products for new indicated uses, we must conduct, at our own expense, extensive preclinical tests to demonstrate the safety of our product candidates in animals and clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Preclinical and clinical testing is expensive, is difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more of our clinical trials can occur at any stage of testing. We may experience numerous unforeseen events during, or as a result of, preclinical testing and the clinical trial process that could delay or prevent our ability to receive regulatory approval or commercialize our product candidates, including, without limitation, the following:

- Regulators or institutional review boards, or IRBs, may not authorize us to commence a clinical trial or conduct a clinical trial within a country or at a prospective trial site.
- The regulatory requirements for product approvals may not be explicit, may evolve over time and may diverge by jurisdiction.
- Our preclinical tests or clinical trials may produce negative or inconclusive results, and we may decide, or we may be required by regulators, to conduct additional preclinical testing or clinical trials or to abandon projects that we had expected to be promising.
- The number of patients required for our clinical trials may be larger than we anticipate, enrollment in our clinical trials may be slower than we anticipate or participants may withdraw from our clinical trials at higher rates than we anticipate, any of which would result in significant delays.
- Our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner.
- We may be forced to suspend or terminate our clinical trials if the participants are being exposed to unacceptable health risks or if any participant experiences an unexpected serious adverse event.
- Regulators or IRBs may require that we hold, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements.
- Undetected or concealed fraudulent activity by a clinical researcher, if discovered, could preclude the submission of clinical data prepared by that researcher, lead to the suspension or substantive scientific review of one or more of our marketing applications by regulatory agencies, and result in the recall of any approved product distributed pursuant to data determined to be fraudulent.
- The cost of our clinical trials may be greater than we anticipate.
- The supply or quality of our product candidates or other materials necessary to conduct our clinical trials may be insufficient or inadequate, as we currently do not have any agreements with third-party manufacturers for the long-term commercial supply of any of our product candidates.
- An audit of preclinical or clinical studies by the FDA or other regulatory authorities may reveal noncompliance with applicable regulations, which could lead to disqualification of the results and the need to perform additional studies.
- The effects of our product candidates may not achieve the desired clinical benefits or may cause undesirable side effects, or the product candidates may have other unexpected characteristics.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete our clinical trials or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may be delayed in or unable to obtain marketing approval or reimbursement for our product candidates, or be unable to obtain approval for indications that are not as broad as intended or have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or approvals. We do not know whether any preclinical tests or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, if at all. Significant preclinical or clinical trial delays could also shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates or could allow our competitors to bring products to market before we do, impairing our ability to commercialize our products or product candidates.

Even if preclinical trials are successful, we still may be unable to commercialize a product due to difficulties in obtaining regulatory approval for its engineering process or problems in scaling that process to commercial production. Additionally, if produced, a product may not achieve an adequate level of market acceptance by physicians, patients, healthcare payors and others in the medical community to be profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, some of which are beyond our control, including the following:

- the prevalence and severity of any side effect
- the efficacy and potential advantages over alternative treatments
- the ability to offer our product candidates for sale at competitive prices
- relative convenience and ease of administration
- the willingness of physicians to prescribe new therapies and of the target patient population to try such therapies
- the strength of marketing and distribution support and
- sufficient third-party coverage or reimbursement.

Therefore, we cannot guarantee that any products we may seek to develop will ever be successfully commercialized, and to the extent they are not successfully commercialized, such products could involve significant expense with no corresponding revenue.

A breakdown in our information technology systems could result in a significant disruption to our business.

Our operations are highly dependent on our information technology systems, including internet-based systems, which may be vulnerable to breakdown, wrongful intrusions, data breaches and malicious attack. In addition, information security risks have generally increased in recent years, increasing our systems' potential vulnerability, such as to data security breaches or cyber attack, whether by employees or others, which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, customers, plasma donors and others or adversely impact the conduct of scientific research and clinical trials, including the submission of research results to support marketing authorizations. Various evolving federal, state and foreign laws protecting the privacy and security of personal information may also be implicated by improper uses or disclosures of data, resulting in liabilities and requiring specified data breach notifications. For example, the privacy and security provisions of the federal Health Insurance Portability and Accountability Act of 1996, as amended, and implementing regulations ("HIPAA") requires, among other things, the implementation of various recordkeeping, operational, notice and other practices intended to safeguard certain personal information, limit its use to allowed purposes and notify individuals in the event of privacy and security breaches. Failure to comply with HIPAA and similar state laws could expose us to breach of contract claims, substantial fines, penalties and other liabilities and expenses, costs for remediation and harm to our reputation. Also, the European Parliament and the Council of the European Union have adopted a new pan-European General Data Protection Regulation ("GDPR"), effective from May 25, 2018, which increased privacy rights for individuals in Europe, extended the scope of responsibilities for data controllers and data processors and imposed increased requirements and potential penalties on companies offering goods or services to individuals who are located in Europe or monitoring the behavior of such individuals (including by companies based outside of Europe). Noncompliance can result in penalties of up to the greater of €20 million, or 4% of global company revenues. Our efforts to implement programs and controls that comply with the GDPR and other data protection requirements are likely to impose additional costs on us, and we cannot predict whether the interpretations of the requirements, or changes in our practices in response to new requirements or interpretations of the requirements, could have a material adverse effect on our business. Our information technology systems also utilize certain third party service organizations that manage sensitive data, such as personal medical information regarding plasma donors, and our business may be adversely affected if these third party service organizations are subject to data security breaches.

Our success depends in large part on our ability to obtain and maintain protection in the United States and other countries of the intellectual property relating to or incorporated into our technology and products.

Our success depends in large part on our ability to obtain and maintain protection in the United States and other countries for the intellectual property covering or incorporated into our technology and products, especially intellectual property related to our purification processes. The patent situation in the field of biotechnology and pharmaceuticals generally is highly uncertain and involves complex legal and scientific questions. We may not be able to obtain additional issued patents relating to our technology or products. Even if patents are issued to us or to our licensors, they may be challenged, narrowed, invalidated, held to be unenforceable or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of time our products have patent protection. Additionally, most of our patents relate to the processes we use to produce our products, not to the products themselves. In many cases, the plasma-derived products we produce or develop in the future will not, in and of themselves, be patentable. Since our patents relate to processes, if a competitor is able to design and utilize a process that does not rely on our protected intellectual property, that competitor could sell a plasma-derived or other product similar to one we developed or sell.

Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States and many other jurisdictions are typically not published until 18 months after their filing, if at all, and because publications of discoveries in the scientific literature often lag behind actual discoveries, neither we nor our licensors can be certain that we or they were the first to make the inventions claimed in our or their issued patents or pending patent applications, or that we or they were the first to file for protection of the inventions set forth in such patent applications. If a third party has also filed a U.S. patent application covering our product candidates or a similar invention, we may be required to participate in an adversarial proceeding, known as an "interference proceeding", declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial and our efforts in them could be unsuccessful, resulting in a loss of our anticipated U.S. patent position.

Our patents expire at various dates. Our pending and future patent applications may not issue as patents or, if issued, may not issue in a form that will provide us with any competitive advantage. Even if issued, we cannot guarantee that: any of our present or future patents or patent claims or other intellectual property rights will not lapse or be invalidated, circumvented, challenged or abandoned; our intellectual property rights will provide competitive advantages; our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will not be limited by our agreements with third parties; any of our pending or future patent applications will be issued or have the coverage originally sought; our intellectual property rights will be enforced in jurisdictions where competition may be intense or where legal protection may be weak; or we will not lose the ability to assert our intellectual property rights against, or to license our technology to, others and collect royalties or other payments. In addition, our competitors or others may design around our protected patents or technologies.

Effective protection of our intellectual property rights may be unavailable, limited or not applied for in some countries. Changes in patent laws or their interpretation in the United States and other countries could also diminish the value of our intellectual property or narrow the scope of our patent protection. In addition, the legal systems of certain countries do not favor the aggressive enforcement of patents, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. In order to preserve and enforce our patent and other intellectual property rights, we may need to make claims or file lawsuits against third parties. Such lawsuits could entail significant costs to us and divert our management's attention from developing and commercializing our products.

We, like other companies in the pharmaceutical industry, may become aware of counterfeit versions of our products becoming available domestically and abroad. Counterfeit products may use different and possibly contaminated sources of plasma and other raw materials, and the purification process involved in the manufacture of counterfeit products may raise additional safety concerns, over which we have no control. Any reported adverse events involving counterfeit products that purport to be our products could harm our reputation and the sale of our products in particular and consumer willingness to use plasma-derived therapeutics in general.

Unauthorized use of our intellectual property may have occurred or may occur in the future. Although we have taken steps to minimize this risk, any failure to identify unauthorized use and otherwise adequately

protect our intellectual property would adversely affect our business. For example, any unauthorized use of our trademarks could harm our reputation or commercial interests. Moreover, if we are required to commence litigation related to unauthorized use, whether as a plaintiff or defendant, such litigation would be time-consuming, force us to incur significant costs and divert our attention and the efforts of our management and other employees, which could, in turn, result in lower revenue and higher expenses.

In addition to patented technology, we rely on our unpatented proprietary technology, trade secrets, processes and know-how.

We generally seek to protect proprietary information by entering into confidentiality agreements with our employees, consultants, scientific advisors and third parties. These agreements may not effectively prevent disclosure of confidential information, may be limited as to their term and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, our trade secrets may otherwise become known or be independently developed by our competitors or other third parties. To the extent that our employees, consultants or contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Costly and time-consuming litigation could be necessary to determine and enforce the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. We also rely on contractual protections with our customers, suppliers, distributors, employees and consultants and implement security measures designed to protect our trade secrets. We cannot assure you that these contractual protections and security measures will not be breached, that we will have adequate remedies for any such breach or that our suppliers, employees or consultants will not assert rights to intellectual property arising out of such contracts.

Since we rely on trade secrets and nondisclosure agreements, in addition to patents, to protect some of our intellectual property, there is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect the unauthorized use of such information, prevent such use or take appropriate and timely steps to enforce our intellectual property rights.

We may infringe or be alleged to infringe intellectual property rights of third parties.

Our products or product candidates may infringe or be accused of infringing one or more claims of an issued patent or may fall within the scope of one or more claims in a published patent application that may be subsequently issued and to which we do not hold a license or other rights. Third parties may own or control these patents or patent applications in the United States and/or abroad. These third parties could bring claims against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us or our collaborators, we or they could be forced to stop or delay research, development, manufacturing or sales of the product or product candidate that is the subject of the suit.

If we are found to be infringing on the patent rights of a third party, or in order to avoid potential claims, we or our collaborators may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. In addition to infringement claims against us, we may become a party to other patent litigation and other proceedings, including interference proceedings declared by the U.S. Patent and Trademark Office and opposition proceedings in the European Patent Office, regarding intellectual property rights with respect to our products. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We take steps to ensure that our employees do not use the proprietary information or know-how of others in their work for us. We may, however, be subject to claims that we or these employees have inadvertently or otherwise used or disclosed intellectual property, trade secrets or other proprietary information of any such employee's former employer. Litigation may be necessary to defend against these claims and, even if we are successful in defending ourselves, could result in substantial costs to us or be distracting to our management. If we fail to defend any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel.

We have in-licensed certain patent rights and co-own certain patent rights with third parties.

Our rights in certain intellectual property that we have in-licensed or co-own with third parties and the value therein may depend on our third party licensors' or co-owners', as applicable, performance under our intellectual property agreements with them. If one of these third parties is unable to, or does not, enforce their own rights in such intellectual property or perform under our agreements with them, it could affect our ability to effectively compete in the marketplace and operate our business.

Our in-license agreements for certain patent rights may impose payment and/or other material obligations on us as a licensee. Although we are currently in compliance with all of our material obligations under these licenses, if we were to breach any such obligations, our counterparty licensors may be entitled to terminate the licenses. Such termination may restrict, delay or eliminate our ability to develop and commercialize our products, which could adversely affect our business. We cannot guarantee that the third-party patents and technology we license will not be licensed to our competitors. In the future, we may need to obtain additional licenses, renew existing license agreements or otherwise replace existing technology. We are unable to predict whether these license agreements can be obtained or renewed or whether the technology can be replaced on acceptable terms, or at all.

The Grifols family may exercise significant influence over the conduct of our business.

The Grifols family and Scranton Enterprises B.V. own, directly and indirectly, 36.4% of our Class A shares. The Class A shares exercise 100% of the voting control of us. As a result, the Grifols family and Scranton Enterprises B.V. may exercise significant influence over matters requiring shareholders' approval, including, among other things, the election of our board of directors, dividend policy and certain fundamental corporate action, such as the issuance of bonds, a merger or a dissolution. Conflicts may arise between the interests of the principal shareholders and those of the other shareholders, and the principal shareholders may choose to resolve the conflict in a way that does not coincide with the interests of the other shareholders.

Risks Relating to the Healthcare Industry

The implementation of the Healthcare Reform Law in the United States may adversely affect our business.

The United States Healthcare Reform Law, adopted through the March 2010 enactment of the Patient Protection and Affordable Care Act and the companion Healthcare and Education Reconciliation Act, increased federal oversight of private health insurance plans and included a number of provisions designed to reduce Medicare expenditures and the cost of health care generally, to reduce fraud and abuse, and to provide access to increased health coverage. While the Healthcare Reform Law has materially expanded the number of individuals in the United States with health insurance, the Healthcare Reform Law has faced ongoing legal challenges, including litigation seeking to invalidate some of or all of the law or the manner in which it has been interpreted. For example, while upholding the law generally, the United States Supreme Court has effectively made the Healthcare Reform Law's Medicaid expansion voluntary for each state. In addition, President Trump is seeking to repeal and replace the Healthcare Reform Law, and has taken a number of administrative actions to materially weaken the Healthcare Reform Law. For example, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Healthcare Reform Law to limit the implementation of any provision of the Healthcare Reform Law that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Further, on December 22, 2017, President Trump signed into law H.R.1, commonly referred to as the Tax Cuts and Jobs Act, which repealed the individual mandate of the Healthcare Reform Law, which has been viewed as important to the fiscal viability of the Healthcare Reform Law. Additionally, in December 2018,

a Texas federal court struck down the entire Healthcare Reform Law, a ruling which is now being appealed, and, if upheld, could have a significant impact on the United States healthcare industry. The uncertain status of the Healthcare Reform Law affects our ability to plan, and its repeal without adequate replacement could have a material adverse effect on our United States operations.

Implementation of the Healthcare Reform Law has included significant cost-saving, revenue and payment reduction measures with respect to, for example, several government healthcare programs that cover our products, including Medicaid, Medicare Parts B and D and the 340B/Public Health Service, or PHS, program, and these efforts could have a material adverse impact on our financial performance.

The availability of federal funds to pay for our products under Medicaid and Medicare Part B programs requires that we extend discounts under the 340B/PHS program, and changes to this program under the Healthcare Reform Law could adversely affect our financial performance. The 340B/PHS program extends discounts to a variety of community health clinics and other entities that receive health services grants from the PHS, as well as hospitals that serve a disproportionate share of certain low income individuals, and the Healthcare Reform Law expanded the number of qualified 340B entities eligible to purchase products for outpatient use, adding certain cancer centers, children's hospitals, critical access hospitals and rural referral centers. The PHS price, or ceiling price, cannot exceed the AMP (as reported to CMS under the Medicaid drug rebate program) less the Medicaid unit rebate amount. We have entered into a pharmaceutical pricing agreement, or PPA, with the government in which we have agreed to participate in the 340B/PHS program by charging eligible entities no more than the PHS ceiling price for drugs intended for outpatient use. Evolving requirements with respect to this program continue to be issued by the Health Resources and Services Administration, or HRSA, of HHS, the federal agency responsible for oversight of the 340B/PHS program, which creates uncertainty. For example, effective January 5, 2019, a final HRSA rule codified standards regarding the calculation of the ceiling price for covered outpatient drugs under the 340B/PHS program, as well as regarding the imposition of civil monetary penalties, or CMPs, on manufacturers that knowingly and intentionally overcharge covered entities. In another development, effective January 1, 2018, a new CMS rule went into effect substantially cutting reimbursement paid to hospitals and other providers for certain outpatient drugs and biologicals, including certain of our products, if purchased by these providers under the 340B/PHS program. The reimbursement was decreased from ASP plus 6% to ASP minus 22.5%. However, on December 27, 2018, the Federal District Court for the District of Columbia issued an opinion finding that this reimbursement cut exceeded CMS's regulatory authority. No final remedy has yet resulted from this decision, and the case remains subject to appeal. The outcome of this reimbursement change on our business is uncertain, but it may decrease demand for our products and have an adverse effect on our business. We believe that we meet the requirements of the 340B/PHS program, and are continuing to review and monitor these and other developments affecting the 340B/PHS program.

The Healthcare Reform Law also introduced a new abbreviated regulatory approval pathway for biological products found to be "biosimilar" to or "interchangeable" with a biological "reference product" previously licensed under a BLA. This abbreviated approval pathway is intended to permit a biosimilar product to come to market more quickly and less expensively by relying to some extent on the data generated by the reference product's sponsor, and the FDA's previous review and approval of the reference product. The law provides that no biosimilar application may be accepted for FDA review until four years after the date the reference product was first licensed by the FDA, and that the FDA may not make approval of an application effective until 12 years after the reference product was first licensed. Once approved, biosimilars likely would compete with, and in some circumstances may be deemed under applicable laws to be "interchangeable with", the previously approved reference product. The extent to which a biosimilar product, once approved, will be substituted for any of our products, in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. The FDA is actively seeking to encourage the entry of biosimilars into the marketplace, including issuing, in July 2018, its Biosimilar Action Plan, intended to enhance the speed of the biosimilar development and approval processes. We expect in the future to face greater competition from biosimilar products, including a possible increase in patent challenges, all of which could adversely affect our financial performance.

Regarding access to our products, the Healthcare Reform Law established and provided significant funding for a Patient-Centered Outcomes Research Institute to coordinate and fund Comparative Effectiveness Research, as those terms are defined in the Healthcare Reform Law. While the stated intent of Comparative Effectiveness Research is to develop information to guide providers to the most efficacious therapies, outcomes of Comparative Effectiveness Research could influence the reimbursement or

coverage for therapies that are determined to be less cost effective than others. Should any of our products be determined to be less cost effective than alternative therapies, the levels of reimbursement for these products, or the willingness to reimburse at all, could be impacted, which could materially impact our financial results.

A Healthcare Reform Law provision, generally referred to as the Physician Payment Sunshine Act, or the PPS Act, or Open Payments Program, has imposed new reporting and disclosure requirements for biologic, drug and device manufacturers with regard to payments or other transfers of value made to certain practitioners, such as physicians and teaching hospitals, and for such manufacturers and for group purchasing organizations, with regard to certain ownership interests held by physicians in the reporting entity. CMS publishes information from these reports on a publicly available website, including amounts transferred and health care provider identities. Under the PPS Act we are required to collect and report detailed information regarding certain financial relationships we have with covered health care providers. The PPS Act pre-empts similar state reporting laws, although we or our subsidiaries may also be required to report under certain state transparency laws that address circumstances not covered by the PPS Act, and some of these state laws are also ambiguous. We are also subject to foreign regulations requiring transparency of certain interactions between suppliers and their customers. While we believe we have substantially compliant programs and controls in place to comply with these reporting requirements, we cannot assure you that regulations will not require us to take additional compliance steps. Our compliance with these rules imposes additional costs on us.

We could be adversely affected if other government or private third-party payors decrease or otherwise limit the amount, price, scope or other eligibility requirements for reimbursement for the purchasers of our products.

Certain of our products are subject to various cost-containment measures, such as government-imposed industry-wide price reductions, mandatory pricing systems, reference pricing systems, payors limiting access to treatments based on cost-benefit analyses, an increase in imports of drugs from lower-cost countries to higher-cost countries, shifting of the payment burden to patients through higher co-payments, limiting physicians' ability to choose among competing medicines, mandatory substitution of generic drugs for the patented equivalent, and growing pressure on physicians to reduce the prescribing of patented prescription medicines. Such pressures could have a material adverse impact on our business, financial condition or results of operations, as well as on our reputation.

For example, certain pharmaceutical products, such as plasma derivative products, are subject to price controls in several of our principal markets, including Spain and countries within the European Union. In the United States, where pricing levels for our products are established by governmental payors and negotiated with private third-party payors, if the amount of reimbursement available for a product is reduced, it may cause groups or individuals dispensing the product to discontinue administration of the product, to administer lower doses, to substitute lower cost products or to seek additional price-related concessions. These actions could have a negative effect on our financial results, particularly in cases where our products command a premium price in the marketplace or where changes in reimbursement induce a shift in the location of treatment. The existence of direct and indirect price controls and pressures over our products has affected, and may continue to materially adversely affect, our ability to maintain or increase gross margins. In addition, the growth of overall healthcare costs and certain weak economic and financial environment in certain countries where we do business, as well as increased scrutiny over pharmaceutical pricing practices, such as in the United States, all enhance these pricing pressures.

In the United States, beginning in 2005, the Medicare drug reimbursement methodology for physician and hospital outpatient payment schedules changed to Average Sales Price, or ASP, + 6%. This payment was based on a volume-weighted average of all brands under a common billing code. After changes in certain prior years, CMS increased the rate back to ASP + 6% for 2013, and maintained the same rate for 2014 through 2018, except that effective January 1, 2018, a new CMS rule went into effect cutting reimbursement paid to hospitals and other providers for certain outpatient drugs and biologicals, including certain of our products to ASP −22.5%, if purchased by these providers under the 340B/PHS program, although this reimbursement cut is being challenged in the courts, and the outcome of that challenge is uncertain. The outcome of this 340B/PHS program reimbursement change on our business is uncertain, but it may decrease demand for our products and have an adverse effect on our business. In addition, under the Bipartisan Budget Act of 2013, and subsequent measures, Medicare is subject to a 2% reduction in federal spending, or "sequestration", including drugs reimbursed under Medicare, for federal fiscal years 2013 through 2025. The full ramifications of this sequestration for Medicare reimbursement are not yet clear, as Congressional action may reduce, eliminate or otherwise change this payment reduction.

Other pricing concerns in the United States include that in May 2018, President Trump released a drug "blueprint" including an array of policy ideas intended to lower drug prices and patient out-of-pocket drug costs, and federal administrative agencies have begun issuing proposed regulations to adopt various of these proposals. An area of focus are drugs reimbursed under Medicare Part B. The proposals include, for example, moving reimbursement for certain Medicare Part B drugs into Medicare Part D to make them subject to a variety of pricing negotiations, establishing an enhanced competitive acquisition program for Medicare Part B drugs, and instituting an "International Pricing Index" payment model that would link reimbursement for certain Medicare Part B drugs to pricing levels for such drugs found in other countries. Other proposals support the marketing of biosimilars, involve lowering standards for demonstrating biosimilarity. One additional proposal, which was published as a proposed rule by the Office of Inspector General of the Department of Health and Human Services on February 6, 2019, and is focused initially on drugs reimbursed under Medicare Part D and certain Medicaid managed care organizations (although comments were sought as to whether its scope should be expanded, including to Medicare Part B drugs), would substantially disrupt current pharmaceutical market practices by apparently rendering illegal, under the federal Anti-Kickback Statute, many drug rebates now routinely paid by drug manufacturers to such health benefit plans or their pharmacy benefit managers (PBMs). The uncertain status of these various pricing proposals, some of which could take effect based on action by federal administrative agencies without the need for Congressional action, affects our ability to plan, and the proposals, if adopted, in whole or in part, could adversely affect our business.

An increasing number of states in the United States have also proposed or passed legislation that seeks to directly or indirectly regulate pharmaceutical drug pricing, such as by requiring drug manufacturers to publicly report pricing information or to place a maximum price ceiling on pharmaceutical products purchased by state agencies. For example, in October 2017, California enacted a prescription drug price transparency law that requires prescription drug manufacturers to provide advance notice and explanation for certain drug price increases that exceed a specified threshold. Laws of this type may cause us to experience additional pricing pressures on our affected products, and could adversely affect our business.

Also, the intended use of a drug product by a physician can affect pricing. Physicians frequently prescribe legally available therapies for uses that are not described in the product's labeling and that differ from those tested in clinical studies and that are approved by the FDA or similar regulatory authorities in other countries. These off-label uses are common across medical specialties, and physicians may believe such off-label uses constitute the preferred treatment or treatment of last resort for many patients in varied circumstances. Industry data indicates that a significant portion of IVIG volume may be used to fill physician prescriptions for indications not approved by the FDA or similar regulatory authorities. In the United States, many off-label uses of drug products may be reimbursed by Medicare and other third-party payors, generally based on the payors' determination that the intended use is for a medically accepted indication, for example, based on studies published in peer-reviewed medical journals or information contained in drug compendia, such as the United States Pharmacopeia-National Formulary. However, if reimbursement for off-label uses of products, including IVIG, is reduced or eliminated by Medicare or other third-party payors, including those in the United States or the European Union, we could be adversely affected. For example, CMS could initiate an administrative procedure known as a National Coverage Determination by which the agency determines which uses of a therapeutic product would be reimbursable under Medicare and which uses would not. This determination process can be lengthy, thereby creating a long period during which the future reimbursement for a particular product may be uncertain. High levels of spending on IVIG products, along with increases in IVIG prices, increased IVIG utilization and the high proportion of off-label uses, may increase the risk of regulation of IVIG reimbursement by CMS. On the state level, similar limits could be proposed for therapeutic products covered under Medicaid.

Certain of our business practices are subject to scrutiny by regulatory authorities, as well as to lawsuits brought by private citizens under federal and state laws. Failure to comply with applicable laws or an adverse decision in lawsuits may result in adverse consequences to us.

The laws governing our conduct in the United States are enforceable by criminal, civil and administrative penalties. Violations of laws such as the Federal Food, Drug and Cosmetic Act, or the FDCA, the Federal False Claims Act, or the FCA, the PHS Act or provisions of the U.S. Social Security Act known as the "Anti-Kickback Law" and the "Civil Monetary Penalties Law", or any regulations promulgated under their authority, may result in jail sentences, fines or exclusion from federal and state programs, as may be determined by Medicare, Medicaid, the Department of Defense, other regulatory authorities and the

courts. There can be no assurance that our activities will not come under the scrutiny of regulators and other government authorities or that our practices will not be found to violate applicable laws, rules and regulations or prompt lawsuits by private citizen "relators" under federal or state false claims laws.

Failure to comply with fraud and abuse laws and regulations could also result in other significant civil and criminal penalties and costs, including the loss of licenses and the ability to participate in federal and state health care programs, and could have a material adverse effect on our business. In addition, these measures may be interpreted or applied by a prosecutorial, regulatory or judicial authority in a manner that could require us to make changes in our operations or incur substantial defense and settlement expenses. Even unsuccessful challenges by regulatory authorities or private relators could result in reputational harm and the incurring of substantial costs. Further, many of these laws are vague or indefinite and have not been interpreted by the courts, and have been subject to frequent modification and varied interpretation by prosecutorial and regulatory authorities, increasing the risk of noncompliance. While we believe that we are substantially compliant with applicable fraud and abuse laws and regulations, and have adequate compliance programs and controls in place to ensure substantial compliance, we cannot predict whether changes in applicable law, or interpretation of laws, or changes in our services or marketing practices in response to changes in applicable law or interpretation of laws, could have a material adverse effect on our business.

Failure to satisfy requirements under the FDCA can also result in penalties, as well as requirements to enter into consent decrees or orders that prescribe allowable corporate conduct. In this regard, our Los Angeles facility was previously managed pursuant to a consent decree that was entered into in February 1998 based on action by the FDA and the U.S. Department of Justice, or the DOJ, addressing FDCA violations committed by the former owner of the facility, Alpha Therapeutic Corporation, or Alpha. The consent decree provided for annual inspection of the plant by the FDA. On March 15, 2012, the United States District Court for the Central District of California entered an order vacating the consent decree on the Los Angeles facility.

Adverse consequences can also result from failure to comply with the requirements of the 340B/PHS program under the PHS Act, which extends discounts to a variety of community health clinics and other entities that receive health services grants under the PHS Act. For example, the Healthcare Reform Law requires the Secretary of HHS to develop and issue regulations for the 340B/PHS program establishing standards for the imposition of sanctions in the form of civil monetary penalties, or CMP, for manufacturers that knowingly and intentionally overcharge a covered entity for a 340B/PHS program drug, and effective January 1, 2019, a final HRSA rule codified these CMP standards. Under the rule, the CMP may be up to $5,000 for each instance of overcharging a covered entity.

In addition, companies in the United States, Canada and the European Union are generally restricted from promoting approved products for other indications that are not specifically approved by the competent regulatory authorities (e.g., the FDA in the United States), nor can companies promote unapproved products. In the United States, pharmaceutical companies have, to a limited extent, been recognized by the FDA as permitted to disseminate to physicians certain truthful and accurate information regarding unapproved uses of approved products, or results of studies involving investigational products. In addition, in December 2012, a federal appeals court in New York found that the criminal prosecution of a pharmaceutical manufacturer for truthful, non-misleading speech promoting the lawful, off-label use of an FDA-approved drug would violate the manufacturer's constitutional rights of free speech, and the FDA chose not to appeal that decision. Improper promotion of unapproved drugs or devices or unapproved indications for a drug or device may subject us to warnings from, or enforcement action by, regulatory agencies, harm demand for our products, and subject us to civil and criminal sanctions. Further, sanctions under the FCA have recently been brought against companies accused of promoting off-label uses of drugs, because such promotion induces the use and subsequent claims for reimbursement under Medicare and other federal programs. Similar actions for off-label promotion have been initiated by several states for Medicaid fraud. The Healthcare Reform Law significantly strengthened provisions of the FCA, the anti-kickback provisions of Medicare and Medicaid and other health care antifraud provisions, leading to the possibility of greatly increased qui tam suits by relators for perceived violations. Industry data indicates that a significant portion of IVIG volume may be used to fill physician prescriptions for indications not approved by the FDA or similar regulatory authorities. Violations or allegations of violations of the foregoing restrictions could materially and adversely affect our business.

We are required to report detailed pricing information, net of included discounts, rebates and other concessions, to CMS for the purpose of calculating national reimbursement levels, certain federal prices

and certain federal and state rebate obligations. We have established systems for collecting and reporting this data accurately to CMS and have instituted a compliance program to assure that the information collected is complete in all respects. If we report pricing information that is not accurate to the federal government, we could be subject to fines and other sanctions (including potential FCA liability) that could adversely affect our business.

To market and sell our products outside of the United States, we must obtain and maintain regulatory approvals and comply with regulatory requirements in such jurisdictions. The approval procedures vary among countries in complexity and timing. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all, which would preclude us from commercializing products in those markets. In addition, some countries, particularly the countries of the European Union, regulate the pricing of prescription pharmaceuticals. In these countries, pricing discussions with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidate to other available therapies. Such trials may be time consuming and expensive and may not show an advantage in efficacy for our products. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, in either the United States or the European Union, we could be adversely affected.

We also are subject to certain laws and regulations concerning the conduct of our foreign operations outside the United States, including the U.S. Foreign Corrupt Practices Act, or FCPA, and other anti-bribery laws and related laws, and laws pertaining to the accuracy of our internal books and records, which have been the focus of increasing enforcement activity in recent years. Under the FCPA, the United States has increasingly focused on regulating the conduct by U.S. businesses occurring outside of the United States, generally prohibiting remuneration to foreign officials for the purpose of obtaining or retaining business. Also, in some countries we may rely on third parties for the marketing and distribution of our products, and these parties may lack sufficient internal compliance resources, and may operate in foreign markets involving substantial corruption. If our efforts to monitor these parties fail to detect potential wrongdoing, we could be held responsible for the noncompliance of these third parties with applicable laws and regulations, which may have a material adverse effect on our business.

We are subject to extensive government regulatory compliance and ethics oversight.

Our business is subject to extensive government regulation and oversight. We have enacted anticorruption, privacy, healthcare and corporate compliance policies and procedures that govern our business practices and those of our distributors and suppliers. These policies and procedures are effectuated through education, training and monitoring of our employees, distributors and suppliers. In addition, to enhance compliance with applicable health care laws and mitigate potential liability in the event of noncompliance, regulatory authorities, such as HHS's Office of the Inspector General, or OIG, have recommended the adoption and implementation of a comprehensive health care compliance program that generally contains the elements of an effective compliance and ethics program described in Section 8B2.1 of the U.S. Sentencing Commission Guidelines Manual. Increasing numbers of U.S.-based pharmaceutical companies have such programs, and we have adopted U.S. healthcare compliance and ethics programs that generally incorporate the HHS OIG's recommendations. However, our adoption and enforcement of these various policies and procedures does not ensure that we will avoid investigation or the imposition of penalties by applicable government agencies.

We are subject to extensive environmental, health and safety laws and regulations.

Our business involves the controlled use and the generation, handling, management, storage, treatment and disposal of hazardous substances, wastes and various biological compounds and chemicals. The risk of contamination or injury from these materials cannot be eliminated. If an accident, spill or release of any regulated chemicals, substances or wastes occurs, we could be held liable for resulting damages, including for investigation, remediation and monitoring of contamination, including natural resource damages, the costs of which could be substantial. As owners and operators of real property, we could also be held liable for the presence of hazardous substances as a result of prior site uses or activities, without regard to fault or the legality of the original conduct that caused or contributed to the presence or release of such hazardous substance on, at, under or from our property. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials, chemicals and wastes.

Although we maintain workers' compensation insurance to cover the costs and expenses that may be incurred due to injuries to our employees resulting from the use and handling of these materials, chemicals and wastes, this insurance may not provide adequate coverage against potential liabilities.

Additional or more stringent federal, state, local or foreign laws and regulations affecting our operations may be adopted in the future. We may incur substantial capital costs and operating expenses to comply with any of these laws or regulations and the terms and conditions of any permits required pursuant to such laws and regulations, including costs to install new or updated pollution control equipment, modify our operations or perform other corrective actions at our respective facilities. In addition, fines and penalties may be imposed for noncompliance with environmental and health and safety laws and regulations or for the failure to have or comply with the terms and conditions of required environmental permits.

USE OF PROCEEDS

We will use the gross proceeds from the offering of the Notes to refinance a portion of the Issuer's existing term loan obligations and pay related fees and expenses. See "Description of Indebtedness" for additional information regarding the terms of the New Term Loan Facilities and our other existing indebtedness. This offering is conditioned upon the Issuer and the Guarantors entering into the credit facilities documentation in connection with the syndication of the New Credit Facilities.

The following table illustrates the estimated sources and uses of funds in connection with the Offering. Actual amounts may vary from estimated amounts depending on several factors, including differences from our estimates of fees, expenses and commissions.

Sources		Uses	
	(euros in millions)[1]		
Notes offered hereby[2]	1,675	Refinancing of Existing Term Loan A (USD)	2,013
New Term Loan B (USD)[3]	2,273	Refinancing of Existing Term Loan A (EUR)	592
New Term Loan B (EUR)[4]	1,360	Refinancing of Existing Term Loan B (USD)	2,577
		Cash to balance sheet	54
		Transaction costs[5]	72
Total Sources	**€5,308**	**Total Uses**	**€5,308**

(1) U.S. dollar amounts have been converted to euro using a U.S. dollar to euro exchange rate of $1.10 to €1.00, which is the illustrative exchange rate used herein. On October 25, 2019, the U.S. dollar to euro exchange rate was $1.00 to €0.90.

(2) Represents the euro equivalent of $1.85 billion composed of the 2025 Notes and 2027 Notes.

(3) Represents the total $2.5 billion of our New Term Loan B (USD).

(4) Represents the euro-equivalent of our New Term Loan B (EUR) of $1.5 billion.

(5) This amount reflects the estimated aggregate fees and expenses we will pay in connection with the offering of the Notes, including transaction costs and professional fees.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of June 30, 2019 on a historical basis and on an as adjusted basis to give effect to the refinancing and this offering and the use of the proceeds therefrom.

This table should be read in conjunction with "Use of Proceeds", "Selected Historical Consolidated Financial Data", "Operational and Financial Review" and the financial statements and related notes included elsewhere in this offering memorandum.

	As of June 30, 2019		
	(euros in millions)[1]		
	Historical	Adjustments	As Adjusted
Cash and cash equivalents	554	54	608
Existing Debt			
Existing Credit Facilities[2]	5,182	(5,182)	—
Existing Notes	1,000	—	1,000
Other Credit Facilities and Financial Liabilities[3]	216	—	216
New Credit Facilities[4]:			
Revolving Loans[5]	—	—	—
Tranche B term loans (USD)[6]	—	2,273	2,273
Tranche B term loans (EUR)[6]	—	1,360	1,360
2025 Notes offered hereby[7]	—	905	905
2027 Notes offered hereby[7]	—	770	770
Total Debt	6,398	126	6,524
Total Equity	4,886	—	4,886
Total Capitalization	11,284	126	11,410

(1) U.S. dollar amounts have been converted to euro using a U.S. dollar to euro exchange rate of $1.10 to €1.00, which is the illustrative exchange rate used herein. On October 25, 2019, the U.S. dollar to euro exchange rate was $1.00 to €0.90.

(2) The Existing Credit Facilities provide for term loan borrowings, revolving loan borrowings and letters of credit, guarantees and similar instruments. Any amounts outstanding under the Existing Credit Facilities at the closing of the offering will be repaid in full, and the Existing Credit Facilities will be terminated at such time.

(3) Other Credit Facilities and Financial Liabilities includes current and non-current financial liabilities excluding lease liabilities (IFRS 16 implementation impact).

(4) Represents the New Credit Facilities. Borrowings under the New Credit Facilities were used to repay the Existing Credit Facilities substantially concurrent with the completion of this offering. See "Description of Indebtedness—New Credit Facilities".

(5) On the closing date of the Offering, we will enter into the New Revolving Credit Facility with a syndicate of lenders to provide for borrowings of up to €455 million ($500 million) from time to time. We do not currently intend to draw under the New Revolving Credit Facility at the closing of the offering.

(6) Represents the full amount drawn on the closing date of the offering. Our EUR tranche B term loan is for the euro equivalent of $1.5 billion. Our USD tranche B term loan is for $2.5 billion.

(7) Represents the aggregate principal amount of Notes hereby and does not reflect any discounts or commissions.

SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA

The following is a summary of our historical consolidated financial data for the periods ended and as of the dates indicated below. You are encouraged to read this information together with our consolidated financial statements, consolidated interim financial statements, the related footnotes and the section entitled "Selected Historical Consolidated Financial Data" and "Operational and Financial Review" included elsewhere in this offering memorandum. For a discussion of certain factors regarding our presentation of financial data, see "Presentation of Financial and Other Information—Financial Information".

The following table presents our consolidated financial data for the periods and as of the dates indicated. Our consolidated financial data as of and for the years ended December 31, 2018, 2017 and 2016 is derived from our consolidated financial statements as of and for the years ended December 31, 2018, 2017 and 2016, included elsewhere in this offering memorandum.

Our consolidated financial data as of and for the six-month periods ended June 30, 2019 and 2018 is derived from our consolidated interim financial statements as of and for each of the six-month periods ended June 30, 2019 and 2018. See "Presentation of Financial and Other Information—Financial Information".

Our consolidated financial statements included elsewhere in this offering memorandum have been prepared in accordance with IFRS-EU. See "Presentation of Financial and Other Information—Financial Information".

Consolidated Balance Sheet Data	As of June 30, 2019	As of December 31, 2018	2017	2016
		(in thousands of euros)		
ASSETS				
Non-current assets				
Goodwill	5,416,606	5,209,230	4,590,498	3,643,995
Other intangible assets	1,417,377	1,385,537	1,269,342	1,195,302
Rights of use	657,610	—	—	—
Property, plant and equipment	2,022,645	1,951,983	1,760,053	1,809,852
Investments in equity-accounted investees	137,615	226,905	219,009	201,345
Non-current financial assets	130,038	107,601	69,889	89,545
Deferred tax assets	117,521	112,539	66,157	67,219
Total non-current assets	**9,899,412**	**8,993,795**	**7,974,948**	**7,007,258**
Current assets				
Inventories	2,205,763	1,949,360	1,629,293	1,642,931
Trade and other receivables				
Trade receivables	332,027	269,167	286,198	413,656
Other receivables	103,707	92,418	40,681	42,299
Current income tax assets	23,228	42,205	59,531	77,713
Trade and other receivables	458,962	403,790	386,410	533,668
Other current financial assets	169,434	53,965	10,738	2,582
Other current assets	36,507	42,344	32,354	48,324
Cash and cash equivalents	553,697	1,033,792	886,521	895,009
Total current assets	**3,424,363**	**3,483,251**	**2,945,316**	**3,122,514**
Total Assets	**13,323,775**	**12,477,046**	**10,920,264**	**10,129,772**

Consolidated Balance Sheet Data	As of June 30, 2019	As of December 31, 2018	2017	2016
		(in thousands of euros)		
EQUITY AND LIABILITIES				
Equity				
Share capital	119,604	119,604	119,604	119,604
Share premium	910,728	910,728	910,728	910,728
Reserves	2,794,647	2,441,931	2,027,648	1,694,245
Treasury stock	(49,650)	(55,441)	(62,422)	(68,710)
Interim dividend	0	(136,747)	(122,986)	(122,908)
Profit attributable to the Parent/Profit for the year attributable to the Parent	286,880	596,642	662,700	545,456
Total equity	**4,062,209**	**3,876,717**	**3,535,272**	**3,078,415**
Available for sale financial Assets	—	—	4,926	(5,219)
Other comprehensive income	(554)	(554)	(656)	(642)
Translation differences	332,109	349,391	89,537	648,927
Other comprehensive expenses	331,555	348,837	93,807	643,066
Equity attributable to the Parent	**4,393,764**	**4,225,554**	**3,629,079**	**3,721,481**
Non-controlling interests	492,055	471,050	4,886	6,497
Total Equity	**4,885,819**	**4,696,604**	**3,633,965**	**3,727,978**
Liabilities				
Grants	11,484	11,845	11,822	12,196
Provisions	7,351	6,114	5,763	5,118
Non-current financial liabilities	6,740,150	6,099,463	5,901,815	4,712,071
Other non-current liabilities	1,398	1,301	—	—
Deferred tax liabilities	401,114	404,398	388,912	600,646
Total non-current liabilities	**7,161,497**	**6,523,121**	**6,308,312**	**5,330,031**
Provisions	54,714	80,055	106,995	89,588
Current financial liabilities	341,295	277,382	155,070	230,065
Current debts with related companies/debt with associates	3,295	7,079	—	—
Trade and other payables				
Suppliers	536,743	561,883	423,096	461,073
Other payables	152,069	159,816	141,720	142,894
Current income tax liabilities	40,757	1,917	6,709	7,957
Total trade and other payables	729,569	723,616	571,525	611,924
Other current liabilities	147,586	169,189	144,397	140,186
Total current liabilities	**1,276,459**	**1,257,321**	**977,987**	**1,071,763**
Total Liabilities	**8,437,956**	**7,780,442**	**7,286,299**	**6,401,794**
Total Equity and Liabilities	**13,323,775**	**12,477,046**	**10,920,264**	**10,129,772**

Consolidated Statement of Profit and Loss

	For the Six-month Period Ended June 30,		Change	
	2019	2018	€	%
	(in thousands of euros, except for percentages)			
Continuing Operations				
Net revenue	2,423,360	2,120,118	303,242	14.3%
Cost of sales	(1,297,413)	(1,113,858)	(183,555)	16.5%
Gross Margin	**1,125,947**	**1,006,260**	119,687	11.9%
Research and development	(132,573)	(112,247)	(20,326)	18.1%
Sales, general and administration expenses	(451,023)	(387,771)	(63,252)	16.3%
Operating expenses	**(583,596)**	**(500,018)**	(83,578)	16.7%
Profit/(loss) of equity accounted investees with similar activity to that of the Group	5,538	—	5,538	100%
Operating result	**547,889**	**506,242**	41,647	8.2%
Finance result	**(167,533)**	**(103,188)**	(64,345)	62.4%
Share of income/(losses) of equity accounted investees	(12,057)	(5,729)	(6,328)	110.5%
Profit before income tax from continuing operations	**368,299**	**397,325**	(29,026)	(7.3)%
Income tax expense	(73,660)	(79,442)	5,782	(7.3)%
Profit after income tax from continuing operations	294,639	317,883	(29,026)	(7.3)%
Consolidated profit for the period	**294,639**	**317,883**	(23,244)	(7.3)%
Profit attributable to the Parent	286,880	318,979	(32,099)	(10.1)%
Profit/loss attributable to non-controlling interest	7,759	(1,096)	8,855	(807.9)%

Consolidated Statement of Profit or Loss Data	For the Year Ended December 31,		
	2018	2017	2016
	(in thousands of euros, except for per share and share data)		
Continuing Operations			
Net revenue	4,486,724	4,318,073	4,049,830
Cost of sales	(2,437,164)	(2,166,062)	(2,137,539)
Gross Profit	**2,049,560**	**2,152,011**	**1,912,291**
Research and development	(240,661)	(288,320)	(197,617)
Selling, general and administration expenses	(814,775)	(860,348)	(775,266)
Operating Expenses	**(1,055,436)**	**(1,148,668)**	**(972,883)**
Operating Result	**994,124**	**1,003,343**	**939,408**
Finance income	13,995	9,678	9,934
Finance costs	(293,273)	(263,344)	(244,829)
Change in fair value of financial instruments	—	(3,752)	(7,610)
Impairment and gains/(losses) on disposal of financial instruments	30,280	(18,844)	—
Exchange differences	(8,246)	(11,472)	8,916
Finance result	**(257,244)**	**(287,734)**	**(233,589)**
Share of profits/(losses) of equity-accounted investees	(11,038)	(19,887)	6,933
Profit before income tax from continuing operations	**725,842**	**695,722**	**712,752**
Income tax expense	(131,436)	(34,408)	(168,209)
Profit after income tax from continuing operations	**594,406**	**661,314**	**544,543**
Consolidated profit for the year	**594,406**	**661,314**	**544,543**
Profit attributable to the Parent	596,642	662,700	545,456
Loss attributable to non-controlling interest	(2,236)	(1,386)	(913)
Basic earnings per share (euros)[1]	0.87	0.97	0.80
Average weighted number of ordinary shares outstanding[1]	684,709,377	684,197,276	683,225,815

(1) On January 4, 2016, the share split approved on December 3, 2015 by the Company's board of directors became effective. As a result of the share split, the nominal value of the new Class A shares becomes €0.25 per share (previously €0.50 per share), while the nominal value of the new Class B shares becomes €0.05 per share (previously €0.10 per share).

OPERATIONAL AND FINANCIAL REVIEW

You are encouraged to read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements as of and for the years ended December 31, 2018, 2017 and 2016 and the related footnotes and consolidated interim financial statements for the six-month periods ended June 30, 2019 and 2018 and the related notes included at the end of this offering memorandum. This discussion and analysis contains forward-looking statements that involve risks and uncertainties. See the section entitled "Risk Factors" included elsewhere in this offering memorandum for a discussion of some of the important factors that could cause actual results to differ materially from those described or implied by the forward-looking statements contained in the following discussion and analysis. See the section entitled "Cautionary Statement Regarding Forward-Looking Statements" included elsewhere in this offering memorandum.

The financial information contained herein was obtained from our consolidated financial statements at December 31, 2018, 2017 and 2016 prepared in accordance with IFRS-EU and from our consolidated interim financial statements as of and for each of the six-month periods ended June 30, 2019 and 2018 prepared in accordance with International Accounting Standard 34 (IAS 34) as adopted by the European Union. The following discussion should also be read in conjunction with "Presentation of Financial and Other Information" and "Selected Historical Consolidated Financial Data".

Business Overview

We are one of the leading global specialty pharmaceutical companies developing, manufacturing and distributing a broad range of biological medicines derived from blood plasma. These plasma derivatives are proteins found in human plasma, which, once isolated and purified, extend and enhance the lives of individuals who suffer from chronic and acute, often life threatening, conditions, such as primary and secondary immunological deficiencies, Chronic Inflammatory Demyelinating Polyneuropathy, or CIDP, A1PI deficiency and related emphysema, immune mediated ITP, Guillain Barré syndrome, Kawasaki disease, allogeneic bone marrow transplants, hemophilia A and B, von Willebrand disease, traumatic or hemorrhagic shock and severe burns. In addition, we have built a diagnostic business that focuses on researching, developing, manufacturing and marketing in vitro diagnostics products for use in clinical and blood bank laboratories. We also specialize in providing infusion solutions, nutrition products and medical devices for use in hospitals and clinics.

Our products and services are used by healthcare providers in over 100 countries to diagnose and treat patients with hemophilia, immune deficiencies, infectious diseases and a range of other medical conditions, and we have a direct presence, through the operation of commercial subsidiaries, in 30 countries.

In 2018, we estimate we ranked in the top three largest producers in the plasma derivatives industry in terms of total sales globally. Additionally we estimate we have a top three market position in various segments including A1PI, IVIG, Factor VIII and albumin as well as in terms of plasma collection centers.

For the year ended December 31, 2018, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €4,486.7 million, €594.4 million and €1,222.7 million, respectively, representing a Published EBITDA margin of 27.3%. For the six-month period ended June 30, 2019, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €2,423.4 million, €294.6 million and €696.8 million respectively, representing a Published EBITDA margin of 28.8%.

In March 2019, we entered into a landmark Agreement with Shanghai RAAS which will considerably boost growth of our plasma derived products and diagmostic solutions in the fast growing Chinese plasma market. Shanghai RAAS is the largest blood products company in China specialising in plasma-derived products for therapeutic use in immunology, haematology and interim care. Under the agreement, subjected to regulatory approval, we will acquire 26.2% of the voting and economic rights in exchange for a contribution of 45% of the economic rights and 40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions. Following the acquisition, Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. We expect the transaction to close in the fourth quarter of 2019.

We organize our business into five divisions: Bioscience, Diagnostic, Hospital, Bio Supplies (formerly Raw Materials) and Others. These divisions also represent our operating segments:

- ***Bioscience.*** The Bioscience division includes activities relating to the manufacture of plasma derivatives for therapeutic use, including the receipt, analysis, quarantine, classification, fractionation and purification of plasma, and the sale and distribution of end products. The main plasma products we manufacture are IVIG, Factor VIII, A1PI and albumin. We also manufacture intramuscular (hyperimmune) immunoglobulins, ATIII, Factor IX and plasma thromboplastin component, or PTC. The Bioscience division accounted for €3,516.7 million, or 78.4%, and €1,920.1 million, or 79.2%, of our total net revenues for the year ended December 31, 2018 and the six-month period ended June 30, 2019, respectively.
- ***Diagnostic.*** The Diagnostic division focuses on researching, developing, manufacturing and marketing *in vitro* diagnostics products, including analytical instruments, reagents, software and associated products for use in clinical and blood bank laboratories, covering the entire value chain from donation to transfusion. We concentrate our Diagnostic business in transfusion medicine (immunology and immunohematology) and specialty diagnostics such as hemostasis. The Diagnostic division's main customers are blood donation centers, clinical analysis laboratories and hospital immunohematology services. The Diagnostic division accounted for €702.3 million, or 15.6%, and €348.7 million, or 14.4%, of our total net revenues for the year ended December 31, 2018 and the six-month period ended June 30, 2019, respectively. The Nucleic Acid Testing, or NAT, Donor Screening Unit is engaged in research, development, manufacturing and commercialization of assays and instruments based on NAT technology for transfusion and transplantation screening. NAT technology makes it possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety. The Hologic Transaction, completed on January 31, 2017, has enhanced our vertical integration and further promote the development of new tests and screening routines for emerging viruses.
- ***Hospital.*** The Hospital division provides services and manufactures products used by hospitals, blood banks, plasma collection centers and other healthcare systems. These products include parenteral solutions, robotics and software. It also includes products that we do not manufacture but that we market as supplementary products to those we do manufacture. The Hospital division accounted for €119.5 million, or 2.7%, of our total net revenues in 2018 and €63.4 million, or 2.6% of our total revenue in the six-month period ended June 30, 2019.
- ***Bio Supplies.*** Since January 2017, net revenues from Bio Supplies primarily relate to all transactions of biological products for non-therapeutic use previously recorded under the Bioscience segment as well as all income derived from manufacturing agreements with Kedrion and third-party sales of Haema and Biotest US. The Bio Supplies division accounted for €167.0 million, or 3.7%, of our total net revenues in 2018 and €104.2 million, or 4.3% of our total net revenues in the six-month period ended June 30, 2019.
- ***Others.*** Net revenues from Others primarily consists of revenue from the rendering of manufacturing services to third party companies.

Recent Developments

The Shanghai RAAS Acquisition

On March 7, 2019, we entered into a share-swap agreement with Shanghai RAAS Blood Products Co Ltd. ("Shanghai RAAS"), a leader in China's plasma derivatives sector, which is listed on the Shenzhen Stock Exchange, by means of which subject to regulatory approval, we will acquire 26.2% of the voting and economic rights[(1)] in Shanghai RAAS in exchange for a contribution of 45% of the economic rights and 40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions Inc. ("GDS"). We will continue to hold 55% of the economic rights and 60% of the voting rights in GDS.

Founded in 1988, Shanghai RAAS specializes in the research and manufacture of plasma derived products for therapeutic use in the areas of immunology, hematology and intensive care medicines. It is the second largest plasma collector in China with 14% market share by collection volumes, operating 41 blood collection centers in 11 provinces and three fractionation facilities.

(1) "economic rights" are defined as all rights attached to the shares except voting rights.

We entered into an Exclusive Strategic Alliance Agreement pursuant to which Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. In exchange for royalties, we will provide technological and know-how support in the bioscience and diagnostic fields to Shanghai RAAS. We will also provide engineering services to Shanghai RAAS in exchange for fees, and Shanghai RAAS will commit to using GDS NAT technology throughout its network of 41 plasma collection centers.

The strategic alliance includes a provision for a specific "Quality Assurance Agreement" to ensure that all activities performed by Shanghai RAAS in relation to plasma collection and production of plasma-derived medicines adhere to the strictest international quality-control mandates. To this end, we will appoint officers and provide advice to oversee Shanghai RAAS's quality and manufacturing areas.

Upon consummation of the transaction, we will be the second largest shareholder in Shanghai RAAS behind Creat Group Co. Ltd, which owns a 26.7% share, RAAS China Ltd will hold a 25.8% equity interest, with the remaining capital distributed among institutional investors and minority shareholders. We will have the right to appoint three directors to the board of directors of Shanghai RAAS out of nine total members and Shanghai RAAS will have the right to appoint one director to the board of directors of GDS. Additionally, we will have a veto right on certain decisions such as those related to the issuance of shares, the disposal of assets, and decisions regarding mergers and modification of the articles of association.

The transaction is pending regulatory approvals and we expect the transaction to close in the fourth quarter of 2019.

Factors Affecting Our Financial Condition and Results of Operations

Price Controls

Certain healthcare products, including plasma derivative products, are subject to price controls in many of the markets where they are sold, including Spain and other countries in the European Union. The existence of price controls over these products has adversely affected in the past, and may continue to adversely affect, our ability to maintain or increase our prices and gross margins.

Plasma Supply Constraints

Plasma is the key raw material used in the production of plasma-derived products. Our ability to continue to increase our revenue depends substantially on increased access to plasma. We currently obtain our plasma from the United States primarily through our plasma collection centers and, to a much lesser extent, through agreements with third parties.

A continued increase in demand for plasma products could lead to industry supply constraints. In response, we and certain of our competitors and independent suppliers could open a number of new plasma collection centers.

As of December 31, 2018, we had 256 operating plasma collection centers located across the United States and Europe, including the rights to all plasma collected at an additional 24 plasma centers in the United States and 35 plasma centers in Germany. We have expanded our plasma collection network through a combination of organic growth by opening new plasma collection centers and acquisitions. Our acquisitions of SeraCare (now renamed Biomat USA) in 2002, PlasmaCare (merged with Biomat USA in 2015) in 2006, eight plasma collection centers from a subsidiary of Baxter (now Takeda) in 2006, four plasma collection centers from Bio Medics in 2007 and one plasma collection center from Amerihealth Plasma in 2008 have given us reliable access to United States source plasma. Our acquisition of Talecris in June 2011 expanded our network by an additional 67 centers. In 2016, we purchased equity interests in the Interstate Blood Bank Group (a 49.19% equity interest in Interstate Blood Bank, a 48.97% equity interest in Bio-Blood Components and a 48.90% equity interest in Plasma Biological Services), one of the main private and independent plasma suppliers in the United States. And in May 2019, we exercised our option to purchase the remaining 51%. In February 2017, we purchased six collection centers from Kedplasma LLC. As of June 30, 2019, we were the worldwide leader in plasma centers, with a network of 293 centers in the United States and Europe.

In 2018, our plasma collection centers obtained approximately 12 million liters of plasma (including specialty plasma required for the production of hyperimmunes and plasma acquired from third parties). We believe that our plasma requirements through 2019 will be met through the following sources:

(i) plasma collected through our plasma collection centers

(ii) plasma collected through our Plasma Supply Agreement and

(iii) plasma purchased from third-party suppliers pursuant to various plasma purchase agreements.

Acquisitions

Acquisition and Sale of Haema and Biotest US

In June 2018, we completed the acquisition of Haema, a German based pharmaceutical company that owns 35 collection centers throughout Germany, for a purchase price of €220 million on a debt-free basis. In August 2018, we completed the acquisition of Biotest US, a U.S. based pharmaceutical company that owns 24 plasma collection centers, for a purchase price of $286 million. In December 2018, we sold our 100% equity interest in Haema and Biotest US to Scranton Enterprises B.V., one of our major shareholders and a related party, for $538 million. This acquisition and subsequent sale allowed us to reinforce our financial structure. We have an option to repurchase the shares of Haema and Biotest US from Scranton Enterprises B.V. exercisable at any time. Our Plasma Supply Agreement in place with Haema and Biotest US has been extended for a 30-year period and we continue to operate the companies' plasma centers.

MedKeeper Investment

On January 26, 2018, we acquired the U.S. technology firm Goetech, based in Denver, Colorado, doing business as MedKeeper. This transaction, for a total of $98 million, included a 51% equity interest in the company and a call option for us and put option for MedKeeper for the remaining 49% on the third anniversary of the closing of the transaction. We hold a majority position on the board of directors. MedKeeper's core business is the development and distribution of web and mobile-based platforms for hospital pharmacies that improve quality standards, productivity in the process, control systems and monitoring different preparations while increasing patient safety. This investment will enhance the activity of our Hospital division and it is part of the strategy to underpin this division in the U.S. market. The acquisition complements our Pharmatech line and enhances our presence in the U.S. market.

GigaGen Investment

In July 2017, we acquired a 43.96% equity interest in GigaGen, a pre-clinical biotherapeutics company, for $35 million. As part of this acquisition, we entered into a research and collaboration agreement with GigaGen whereby, in exchange for a collaboration fee of $15 million in the aggregate, GigaGen will commit to carry out research activities to develop recombinant plyclonal immunoglobulin therapies derived from human B cells for the treatment of human diseases.

Investment in Access Biologicals

On January 12, 2017, we acquired 49% of the voting rights in Access Biologicals for $51 million. We were also granted the option, exercisable in 2022, to purchase the remaining 51% of the voting rights of the company for a multiple of its earnings within a five-year timeframe. Access Biologicals is based in Vista, California and collects and manufactures an extensive biological product portfolio. It provides support for various markets such as in-vitro diagnostic manufacturing, biopharmaceutical, cell culture and diagnostic research & development.

The Hologic Transaction

On December 14, 2016, we entered into the Hologic Agreement with Hologic. The Hologic Transaction closed on January 31, 2017, at which time we paid a purchase price of $1.865 billion to Hologic. The agreement included activities related to the research, development and production of reagents and instruments based on NAT technology. Prior to the transaction, we and Hologic jointly operated this business, with Hologic responsible for research and development and manufacturing of the Procleix® blood screening products and Grifols responsible for their commercialization worldwide.

Investment in Singulex

In May 2016, we invested $50 million in Singulex to acquire 20% of the common stock interest in Singulex. In connection with the investment, Singulex also granted us an exclusive worldwide license under certain intellectual property rights for the use and sale of certain products and services for blood donor and plasma screening, which will help to further ensure the safety of our blood and plasma products.

Singulex is the developer of the Single Molecule Counting (SMC™) technology for clinical diagnostic and scientific discovery. This technology enables the detection of disease biomarkers that were previously undetectable. Singulex is developing a fully-automated *in vitro* diagnostics system that will allow the company to bring its technology to hospitals and laboratories worldwide. Singulex provides clinical laboratory testing services to enhance the early detection of cardiac and vascular disorders and sells immunoassay tests and services.

Investment in the Interstate Blood Bank Group

On April 11, 2016, Grifols Worldwide Operations Limited acquired a 49.19% equity interest in Interstate Blood Bank, a 48.97% equity interest in Bio-Blood Components, and a 48.90% equity interest in Plasma Biological Services, collectively referred to herein as the "IBBI Group", for $100 million, plus purchased an option for $10 million to acquire the remaining equity interests in the IBBI group. The transaction with the IBBI Group closed on May 11, 2016. In April 2019, we exercised our option to purchase the remaining equity interests in the IBBI Group for $100 million. IBBI Group's principal business is the collection of plasma for the plasma fractionation industry.

Acquisition of Progenika

On March 3, 2016, we announced the acquisition of shares representing 32.93% of the economic and voting rights of Progenika Biopharma, S.A., or Progenika, for a total amount of €25 million. The acquisition involved the execution of the put and call options that certain shareholders of Progenika and Grifols granted to each other on February 27, 2013. Fifty percent of the purchase price was paid in exchange for 876,777 non-voting class B shares of Grifols, with a face value of € 0.05 per share. The remaining 50% of the purchase price was paid in cash.

Between 2016 and 2019 we executed certain transactions with the shareholders of Progenika and, as a result, Grifols has increased its equity interest in Progenika to 100% of the share capital as of July 2019.

AlbaJuna Therapeutics Investment

In January 2016, we acquired 30% of the equity of AlbaJuna Therapeutics S.L. for €3.75 million in cash to fund the development and manufacturing of therapeutic antibodies against HIV. The initial investment will be increased upon the achievement of agreed -upon developmental milestones.

In February 2019, we subscribed for a capital increase in AlbaJuna Therapeutics S.L. for an amount of €3.75 million. As a result we now hold 49% of the share capital of the company.

AlbaJuna Therapeutics, a spin-off from the AIDS Research Institute, IrsiCaixa, promoted jointly by Obra Social "La Caixa" Foundation and the Department of Health of the Generalitat de Catalunya, was established to promote the pre-clinical and clinical development of monoclonal antibodies that neutralize the action of HIV in the body while they increase the activity of the natural killer cells that have the task of destroying infected cells.

Kiro Grifols Acquisition and Joint Venture

In September 2014, we purchased 50% of Kiro Grifols (formerly Kiro Robotics) for €21 million. In July 2017, we acquired an additional 40% of Kiro Grifols for €12.8 million. As a result, we now own 90% of the voting and economic rights of Kiro Grifols. The remaining 10% will continue to be held by Socios Fundadores Kiro, a company wholly owned by cooperatives of the Mondragon Corporation. While executing the purchase agreement for the additional 40% equity interest in Kiro Grifols, together with the remaining shareholder of Kiro Grifols, we also signed an amendment to the then existing shareholders agreement, whereby certain provisions governing the management of the company, the distribution of dividends and the transfer of shares (i.e., four-year lock-up period, preferential purchase rights, drag and tag along rights) were rendered ineffective as of that time, and Mondragon Corporation maintained the right to appoint one member of the board of directors of Kiro Grifols.

We also entered into a joint venture & shareholders' agreement with the partners of Kiro Grifols, Mondragon Innovacion, Mondragon Assembly, and Agrupación de Fundición y Utillaje. This agreement governs, among other matters, the capital increase subscribed by us and the managing and governing bodies of Kiro Grifols, including the board of directors and any other internal managing and governing bodies.

Kiro Grifols, a spin-off of Mondragon Health, a strategic unit of the Mondragon Corporation, is a Spanish technological company that develops, manufactures and sells machinery and equipment designed to automate or control critical hospital processes, such as dose dispensing in hospital pharmacy and clinical diagnostic services. It also develops technologies designed to improve the efficiency, safety and quality of hospital processes, such as the Kiro Oncology robot, which automates the preparation of intravenous medication for chemotherapy to reduce the risk that health professionals will come into contact with these hazardous products.

Trends

Plasma-derived protein therapies are essential to extend and improve the lives of individuals suffering from chronic, acute and life-threatening conditions including infectious diseases, such as hepatitis, immunological diseases, such as multiple sclerosis, hemophilia, von Willebrand disease, liver dialysis and acute conditions such as burns and severe blood loss. For this reason, the administration of these products cannot be interrupted or postponed without putting patients' lives at risk. This ensures a stable demand for such products. In addition, because of the nature of the diseases treated, the reimbursement rates for plasma derivative products in the United States are high. Any changes to such rates would likely elicit a strong lobbying response in the United States.

Based on MRB reports, sales in the human plasma-derived product industry have grown at a compound annual rate of 10.2% globally from 2009 to 2017. We believe that many plasma derivative products are underutilized and will continue to benefit from strong demand. Additionally, new indications are being explored for a number of plasma-derived therapies, such as the treatment of Alzheimer's disease. We believe that the volume of global sales of plasma derivative products will continue to grow driven primarily by the same factors that have contributed to its historical growth, including:

- population growth
- the discovery and approval of new applications and indications for plasma-based products
- an increase in the number of diagnosed patients and diagnosed but previously-untreated patients
- geographic expansion and
- physicians' greater awareness of conditions and treatments.

In 2018, 17.8% of our net revenues were generated in the European Union, as compared to 15.9% in 2017 and 16.1% in 2016. As of June 30, 2019, 17.3% of our net revenues were generated in the European Union. We anticipate that the percentage of our net revenues generated in the European Union will not significantly increase in the second half of 2019.

There are significant barriers to entry into the plasma derivative products industry, as the industry is highly regulated and requires significant expertise and capital investments. We do not expect these barriers to decrease in the near term.

Regulatory Environment. In order to operate in the plasma derivatives industry, manufacturers and distributors must comply with extensive regulation by the FDA, the EMA and comparable authorities worldwide. As a result, significant investments are required to develop, equip and maintain the necessary storage, fractionation and purification facilities and to develop appropriate sale, marketing and distribution infrastructures. Additionally, only proteins derived from plasma collected at FDA-approved centers can be marketed in the United States, so securing an adequate supply of U.S. source plasma is required to operate in the United States. We expect these regulatory restrictions to continue.

Product Pipeline. We have an expanded portfolio of key products as a result of our recent acquisitions and will continue to invest in research and development with respect to new product and new indications for existing products. Some key research and development projects underway include clinical studies of the use of albumin, diagnostic and vaccine therapies to treat Alzheimer's disease, of albumin to treat advance cirrhosis and ascites, and of antithrombin in heart surgery.

Capital Expenditures. From 2018 through 2022, we are undertaking a €1.4 billion investment plan that involves among other investments, cumulative industrial capital investments to expand the manufacturing capacities of the Bioscience division as well as investments in the Diagnostic and Hospital divisions.

Other Factors

Our financial and operating prospects can also be significantly affected by a number of other internal and external factors, such as unfavorable changes in governmental regulation or interpretation; increased competition; the inability to hire or retain qualified personnel necessary to sustain planned growth; the loss of key senior managers; problems in developing some of the international operations; and lack of sufficient capital, among others.

Factors Affecting Comparability

As a result of certain events, such as adoption of material new accounting standards and amendments or major acquisitions and disposals, year-on-year comparisons of financial results may not be fully comparable. Our revenue, operating profit and other financial results may be affected by such factors as changes in accounting standards or changes in the scope of our business between financial periods.

IFRS 16 (Leases)

IFRS 16 brings in a single model for lease accounting by lessees in the statement of financial position. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are optional exemptions for short-term leases and leases of low value items. Lessor accounting remains similar to the current standard. Lessors continue to classify leases as finance or operating leases.

IFRS 16 replaces existing guidance on leases, including IAS 17 "Leases", IFRIC 4 "Determining whether an arrangement contains a lease", SIC-15 "Operating leases—Incentives" and SIC-27 "Evaluating the substance of transactions involving the legal form of a lease".

IFRS 16 is mandatory for all financial years beginning on or after January 1, 2019. We adopted IFRS 16 for the first time on January 1, 2019, but have not restated comparative figures for the 2018 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules are therefore recognized in the opening balance sheet on January 1, 2019.

We have employed the following solutions when applying the simplified method to leases previously classified as operating leases under IAS 17 Leases:

- We have not applied IFRS 16 to agreements that were not previously deemed to contain a lease under IAS 17 and IFRIC 4 "Determining whether an arrangement contains a lease".
- We have excluded the initial direct costs from the measurement of the right-of-use asset on the date of first-time adoption.
- We have excluded leases that expire within 12 months as from the date of first-time adoption.
- We have excluded of leases in which the underlying asset has a low value.

The reconciliation of lease liabilities for buildings and warehouses in relation to leases which had previously been classified as operating leases under IAS 17 (related to non-cancelable agreements and renewals) and lease liabilities under IFRS 16 at January 1, 2019 is as follows:

	As of January 1, 2019
	(in thousands of euros)
Operating lease commitments existing as at December 31, 2018	400,579
Periods covered by an option to extend the lease by the Group	579,261
Discontinuing using the Group's incremental borrowing rate	(311,116)
Finance lease liabilities recognised as at December 31, 2018	1,395
Short-term leases recognised on a straight-line basis as expense	(4,822)
Others	(349)
Lease liability recognised as at January 1, 2019	**664,948**

At June 30, 2019 our net debt as defined in our existing credit and guaranty agreement stood at €5,845 million, which includes €554 million in cash. The table below presents the effect on our consolidated net debt as of June 30, 2019 due to the adoption of the IFRS 16 (*Leases*).

	As of June 30, 2019 (in millions of euros)		
	Net debt	**IFRS 16 impact**	**Actual**
Existing Debt	6,398.3	683.1	7,081.4
Existing Credit Facilities	5,182.1		5,182.1
Existing Notes	1,000.0		1,000.0
Other Credit Facilities and Financial Liabilities	216.2	683.1	899.3
Minus			
Cash and cash equivalents	553.7		553.7
Total	5,844.6	683.1	6,527.7

Summary of Certain Differences between IFRS- EU and IFRS-IASB

The financial statements we file annually on Form 20-F with the SEC are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Boards, or IFRS-IASB, which, for our purposes, are identical to the IFRS-EU standards. Differences arise between IFRS-IASB and IFRS-EU when an IASB approved statement has become effective, but the standard has not been adopted by the EU, or although having been adopted has not yet become effective. We normally early adopt any EU adopted standards to minimize any potential differences in our financial statements. We are not aware of any material items between IFRS-IASB and IFRS-EU that might affect our financial statements.

Critical Accounting Policies under IFRS-EU

The preparation of consolidated financial statements in accordance with IFRS-EU requires us to make estimates and judgments in certain circumstances that affect the reported amounts of assets, liabilities, revenue, expenses and the related disclosures of contingent assets and liabilities. A detailed description of our significant accounting policies is included in the notes to our consolidated financial statements included elsewhere in this offering memorandum.

We believe that certain of our accounting policies are critical because they require subjective and complex judgments, often requiring the use of estimates about the effects of matters that are inherently uncertain. We apply estimation methodologies consistently from year to year. Other than changes required due to the issuance of new accounting guidance, there have been no significant changes in our application of critical accounting policies during the periods presented. We periodically review our critical accounting policies and estimates with the Audit Committee of our board of directors. The following is a summary of accounting policies that we consider critical to our consolidated financial statements.

(a) Business combinations

We apply IFRS 3 (revised), Business combinations in transactions made subsequent to January 1, 2010, applying the acquisition method of this standard to business combinations. The acquisition date is the date on which we obtain control of the acquiree.

The consideration paid excludes all amounts that do not form part of the exchange for the acquired business. Acquisition-related costs are accounted for as expenses when incurred. Share capital increase costs are recognized as equity when the increase takes place and borrowing costs are deducted from the related financial liability when it is recognized.

At the acquisition date, we recognize at fair value the assets acquired and liabilities assumed. Liabilities assumed include any contingent liabilities that represent present obligations arising from past events for which the fair value can be reliably measured. We also recognize indemnification assets transferred by the seller at the same time and following the same measurement criteria as the item that is subject to indemnification from the acquired business, taking into consideration, where applicable, the insolvency risk and any contractual limit on the indemnity amount.

Assets and liabilities assumed are classified and designated for subsequent measurement in accordance with the contractual terms, economic conditions, operating or accounting policies and other factors that exist at the acquisition date, except for leases and insurance contracts.

The excess between the consideration transferred and the value of net assets acquired and liabilities assumed, less the value assigned to non-controlling interests, is recognized as goodwill.

When a business combination has been determined provisionally, adjustments to the provisional values only reflect information relating to events and circumstances existing at the acquisition date and which, had they been known, would have affected the amounts recognized at that date. Once this period has elapsed, adjustments are made to initial values only when errors must be corrected. Any potential benefits arising from tax losses and other deferred tax assets of the acquiree that were not recorded because they did not qualify for recognition at the acquisition date are accounted for as income tax revenue, provided the adjustments were not made during the measurement period.

(b) Property, plant and equipment

(i) *Depreciation*

Property, plant and equipment are depreciated by allocating the depreciable amount of an asset on a systematic basis over its useful life. The depreciable amount is the cost or deemed cost of an asset less its residual value. We determine the depreciation charge separately for each component of property, plant and equipment with a cost that is significant in relation to the total cost of the asset.

Property, plant and equipment are depreciated using the following criteria:

	Depreciation method	Rates
Buildings	Straight line	1%-3%
Other property, technical equipment and machinery	Straight line	4%-10%
Other property, plant and equipment	Straight line	7%-33%

We review residual values, useful lives and depreciation methods at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(ii) *Subsequent recognition*

Subsequent to the initial recognition of the asset, only those costs incurred which will probably generate future profits and for which the amount may reliably be measured are capitalized. Costs of day-to-day servicing are recognized in profit or loss as incurred.

Replacements of property, plant and equipment which qualify for capitalization are recognized as a reduction in the carrying amount of the items replaced. Where the cost of the replaced items has not been depreciated independently and it is not possible to determine the respective carrying amount, the replacement cost is used as indicative of the cost of items at the time of acquisition or construction.

(iii) *Impairment*

We test for impairment and reversals of impairment losses on property, plant and equipment based on the criteria set out below in (d).

(c) Intangible assets

(i) *Goodwill*

Goodwill is generated in the course of business combinations and is calculated using the criteria described in the section on business combinations.

Goodwill is not amortized, but tested for impairment annually or more frequently if events indicate a potential impairment loss. Goodwill acquired in business combinations is allocated to the cash-generating units, which we refer to as CGUs, or groups of CGUs that are expected to benefit from the synergies of the business combination, and we apply the criteria described in the footnotes to our consolidated financial statements included elsewhere in this offering memorandum. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

(ii) *Internally generated intangible assets*

Any research and development expenditure incurred during the research phase of projects is recognized as an expense when incurred.

Costs related with development activities are capitalized when all of the following conditions are met:

- We have technical studies that demonstrate the feasibility of the production process.
- We have undertaken a commitment to complete production of the asset to make it available for sale or internal use.
- The asset will generate sufficient future economic benefits.
- We have sufficient technical and financial resources to complete development of the asset and have developed budget control and cost accounting systems that enable monitoring of budgetary costs, modifications and the expenditures actually assigned to different projects.

The cost of internally generated assets is calculated using the same criteria established for determining production costs of inventories. The production cost is capitalized by allocating the costs attributable to the asset to self-constructed non-current assets through the consolidated statement of profit or loss.

Expenditures on activities that contribute to increasing the value of the different businesses in which we operate are expensed when incurred. Replacements or subsequent costs incurred on intangible assets are generally recognized as an expense, except where they increase the future economic benefits expected to be generated by the assets.

(iii) *Other intangible assets*

Other intangible assets are carried at cost, or at fair value if they arise on business combinations, less accumulated amortization and impairment losses.

Intangible assets with indefinite useful lives are not amortized but tested for impairment at least annually.

(iv) *Intangible assets acquired in business combinations*

The cost of identifiable intangible assets acquired in the business combination of Progenika includes the fair value of the currently marketed products sold, which are classified in "Other intangible assets" and "Development costs".

The cost of identifiable intangible assets acquired in the business combination of Novartis includes the fair value of the existing royalty agreements.

(v) *Useful life and amortization rates*

We assess whether the useful life of each intangible asset acquired is finite or indefinite. An intangible asset is regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset will generate net cash inflows.

Intangible assets with finite useful lives are amortized by allocating the depreciable amount of an asset on a systematic basis over its useful life, by applying the following criteria:

	Amortization method	Rates
Development expenses	Straight line	10%
Concessions, patents, licenses, trademarks and similar	Straight line	4%-20%
Computer software	Straight line	33%
Currently marketed products	Straight line	3%-10%

The depreciable amount is the cost or deemed cost of an asset less its residual value.

We do not consider the residual value of its intangible assets to be material. We review the residual value, useful life and amortization method for intangible assets at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(d) Impairment of goodwill, other intangible assets and other non-financial assets subject to depreciation or amortization

We evaluate whether there are indications of possible impairment losses on non-financial assets subject to amortization or depreciation to verify whether the carrying amount of these assets exceeds the recoverable amount.

We test goodwill, intangible assets with indefinite useful lives, and intangible assets with finite useful lives that are not available for use for potential impairment at least annually, irrespective of whether there is any indication that the assets may be impaired.

The recoverable amount of the assets is the higher of their fair value less costs of disposal and their value in use. An asset's value in use is calculated based on an estimate of the future cash flows expected to derive from the use of the asset, expectations about possible variations in the amount or timing of those future cash flows, the time value of money, the price for bearing the uncertainty inherent in the asset and other factors that market participants would reflect in pricing the future cash flows deriving from the asset.

Negative differences arising from comparison of the carrying amounts of the assets with their recoverable amounts are recognized in the consolidated statement of profit or loss. Recoverable amount is determined for each individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the CGU to which the asset belongs.

Impairment losses recognized for cash-generating units are first allocated, where applicable, to reduce the carrying amount of goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset. The carrying amount of each asset may not be reduced below the highest of (i) its fair value less costs of disposal, (ii) its value in use and (iii) zero.

At the end of each reporting period we assess whether there is any indication that an impairment loss recognized in prior periods may no longer exist or may have decreased. Impairment losses on goodwill are not reversible. Impairment losses on other assets are only reversed if there has been a change in the estimates used to calculate the recoverable amount of the asset.

A reversal of an impairment loss is recognized in consolidated profit or loss. The increase in the carrying amount of an asset attributable to a reversal of an impairment loss may not exceed the carrying amount that would have been determined, net of depreciation or amortization, had no impairment loss been recognized.

A reversal of an impairment loss for a CGU is allocated to its assets, except for goodwill, pro rata with the carrying amounts of those assets. The carrying amount of an asset may not be increased above the lower of its recoverable value and the carrying amount that would have been obtained, net of amortization or depreciation, had no impairment loss been recognized.

(e) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The costs of conversion of inventories include costs directly related to the units of production and a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. The allocation of fixed indirect overheads is based on the higher of normal production capacity or actual production.

The raw material used to produce hemoderivatives is human plasma, which is obtained from our donation centers using the plasmapheresis method. The cost of inventories includes the amount paid to plasma donors, or the amount billed by the seller when plasma is purchased from third parties, as well as the cost of products and devices used in the collection process, rental expenses and storage. This plasma has to be stored before use, which is an essential part of the production process. During the storage period, the plasma undergoes various virological tests and should be kept in quarantine in accordance with FDA and EMA regulations, in order to guarantee that all the plasma is suitable for use in the production process.

To the extent that plasma storage costs are necessary to the production process, they are included as cost of inventories.

Indirect costs such as general management and administration costs are recognized as expenses in the period in which they are incurred.

The cost of raw materials and other supplies and the cost of merchandise are allocated to each inventory unit on a weighted average cost basis. The transformation cost is allocated to each inventory unit on a first-in, first-out, or FIFO, basis.

We use the same cost model for all inventories of the same nature and with a similar use.

Volume discounts extended by suppliers are recognized as a reduction in the cost of inventories when it is probable that the conditions for discounts to be received will be met. Discounts for prompt payment are recognized as a reduction in the cost of the inventories acquired.

When the cost of inventories exceeds the net realizable value, materials are written down to net realizable value. Net realizable value is considered as detailed below.

- Raw materials and other supplies: replacement cost. Nevertheless, raw materials and other supplies are not written down below cost if the finished goods into which they will be incorporated are expected to be sold at or above cost of production.
- Merchandise and finished goods: estimated selling price, less costs to sell.
- Work in progress: the estimated selling price of related finished goods, less the estimated costs of completion and the estimated costs necessary to make the sale.

The previously recognized write-down is reversed against profit or loss when the circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances. The reversal of the write-down is limited to the lower of the cost and revised net realizable value of the inventories. Write-downs may be reversed with a credit to "Changes in inventories of finished goods and work in progress and supplies".

(f) Revenue recognition

Revenue from the sale of goods or services is recognized at an amount that reflects the consideration that the Group expects to be entitled to receive in exchange for transferring goods or services to a customer, at the time when the customer obtains control of the goods or services rendered. The consideration that is committed in a contract with a client can include fixed amounts, variable amounts, or both. The amount of the consideration may vary due to discounts, reimbursements, incentives, performance bonuses, penalties or other similar items. Contingent consideration is included in the transaction price when it is highly probable that the amount of revenue recognized is not subject to future significant reversals. Revenue is presented net of value added tax and any other amount or tax, which in substance corresponds to amounts received on behalf of third parties.

(g) Sale of goods

We recognize revenue from the sale of goods when the Group meets the performance obligation by transferring the assets committed to the customer. An asset is transferred when the customer obtains control of that asset. When evaluating the satisfaction of the performance obligation, the Group considers the following indicators of the transfer of control, which include, but are not limited to the following:

- We have a present right to payment for the asset.
- The customer has the legal right to the asset.
- We have transferred the physical possession of the asset
- The customer has the significant risks and rewards of ownership of the asset.
- The customer has accepted the asset.

We participate in the government-managed Medicaid programs in the United States, accounting for Medicaid rebates by recognizing an accrual at the time a sale is recorded for an amount equal to the estimated claims for Medicaid rebates attributable to the sale. Medicaid rebates are estimated based on historical experience, legal interpretations of the applicable laws relating to the Medicaid program and any new information regarding changes in the program regulations and guidelines that would affect rebate amounts. Outstanding Medicaid claims, Medicaid payments and inventory levels are analyzed for each

distribution channel and the accrual is adjusted periodically to reflect actual experience. While rebate payments are generally made in the following or subsequent quarter, any adjustments for actual experience have not been material.

As is common practice in the sector, the purchase contracts we have signed with some of our customers entitle these customers to price discounts for a minimum purchase volume, volume discounts or prompt payment discounts. We recognize these discounts as a reduction in sales and receivables in the same month that the corresponding sales are invoiced based on the customer's actual purchase figures or on past experience when the customer's actual purchases will not be known until a later date.

In the United States, we enter into agreements with certain customers to establish contract pricing for our products, which these entities purchase from the authorized wholesaler or distributor (collectively, wholesalers) of their choice. Consequently, when the products are purchased from wholesalers by these entities at the contract price which is less than the price we charge to the wholesaler, we provide the wholesaler with a credit referred to as a chargeback. We record the chargeback accrual at the time of the sale. The allowance for chargebacks is based on our estimate of the wholesaler inventory levels, and the expected sell-through of the products by the wholesalers at the contract price based on historical chargeback experience and other factors. We periodically monitor the factors that influence the provision for chargebacks and make adjustments when we believe that actual chargebacks may differ from established allowances. These adjustments occur in a relatively short period of time. As these chargebacks are typically settled within 30 to 45 days of the sale, adjustments for actual experience have not been material.

(h) Leases

We changed our accounting policies as a result of adopting IFRS 16 for leases where we are the lessee. For purposes of IFRS 16, a lease contract is a contract that fulfills the following conditions:

- There is an identified asset explicitly specified in the contract (e.g. a building, a specific serial number) or implicitly specified when it is made available for use by the Group (e.g. a printer, a car). When the asset is a portion of an asset's capacity could be also an identified asset if it is physically distinct (e.g. a floor of a building, a storage location in a warehouse) or the Group has the right to receive substantially all its of capacity.
- The lessee has the right to direct the use of the identified asset meaning that it has the right to determine how and for what purpose the asset will be used.
- The lessee has the right to obtain all the economic benefits from the use of the asset throughout the period of use.
- Control is conveyed where the customer has both the right to direct the identified asset's use and to obtain substantially all the economic benefits from such use.

A non-lease contract is one where, even if an asset is specified in the contract, if the lessor has a substantive substitution right throughout the period of use, the asset is not deemed to be and the contract therefore does not contain a lease. When the lessee does not have the right to control the use of the asset, the contract does not contain a lease.

IFRS 16 does not apply to non-lease contracts, and such contracts will be treated as a service contract which are usually treated as an expense.

Where we act as lessee, lease contracts will be recognized as a lease liability representing its obligation to make lease payments and as a right of use (as an intangible asset) representing its right to use the identified asset.

The exceptions are lease contracts that fulfill any of the following conditions and are recognized as monthly expense over the lease term:

- Non-real estate contracts where the lease term is 12 months or less at the commencement date, without a purchase option, or
- The value of the asset (individually) when new is lower than $5,000 or its equivalent in another currency.

Lease Liability

Initial assessment

Lease liability corresponds to the present value of payments during the lease term, as follows:

- only the rent payment is counted as part of the liability calculation:
  - Fixed lease payments, less any lease incentives receivable,
  - Variable lease payments that depend on an index or a rate known,
  - The purchase option price if the lessee is reasonably certain to exercise it,
  - Any amount already paid at the contract start date must not be included.

Non-lease components that could be included in a lease contract, such as maintenance services or utilities, are not part of the lease liability and must be recognized as an expense as soon as the service is rendered.

Lease Term

The lease term is the non-cancellable period, for which the lessee has the right to use an asset, not including any optional periods.

The lease liability is then calculated at the present value of the lease payments during the lease term, using a discount rate specified in the contract.

Subsequent assessment

After initial recognition, the lease liability is measured at amortized cost using the effective interest method. The lease liability must be updated due to any of the following:

- increased to reflect monthly accrual of interest expense
- reduced to reflect the lease payments made and
- revaluated to reflect any revaluation or modifications on the lease payments. The counterpart gain/loss account will be rent expense for current payments or right of use asset for future payments. The discount rate to be used depends on the event causing the revaluation.

Right of use asset (ROU)

Initial measurement

ROU is initially measured at cost, which comprises:

- Initial assessment of lease liability
- Any amount already paid at the contract start date
- Estimated costs to dismantle or to restore the identified asset
- Less any discount received.

Subsequent measurement

The ROU is measured at cost less accumulated depreciation and accumulated impairment losses (if any).

The net book value of the ROU must be adjusted as a consequence of a re-measurement of the lease liability.

Depreciation method and useful life

Depreciation is calculated on a straight-line basis and begins at the lease commencement date (when the asset is available for use). If purchase option is reasonably certain to be exercised, then the useful life of the underlying asset will be calculated. If the purchase option is not reasonably certain to be exercised, then depreciation will be calculated using the earliest of useful life or the end of the lease term.

Results of Operations

Six-month Period Ended June 30, 2019 Compared to Six-month Period Ended June 30, 2018

The following discussion and analysis contains information regarding our results of operations for the six-month period ended June 30, 2019 as compared to the six-month period ended June 30, 2018.

	Six-month Period Ended June 30,		Change	
	2019	2018	€	%
	(in thousands of euros, except for percentages)			
Continuing Operations				
Net revenues	2,423,360	2,120,118	303,242	14.3%
Cost of sales	(1,297,413)	(1,113,858)	(183,555)	16.5%
Gross margin	**1,125,947**	**1,006,260**	119,687	11.9%
Research and development	(132,573)	(112,247)	(20,326)	18.1%
Sales, general and administration expenses	(451,023)	(387,771)	(63,252)	16.3%
Operating expenses	**(583,596)**	**(500,018)**	(83,578)	16.7%
Profit/(loss) of equity accounted investees with similar activity to that of the Group	5,538	**—**	5,538	100%
Operating results	**547,889**	**506,242**	41,647	8.2%
Finance Income	10,621	7,049	3,572	50.7%
Finance costs	(179,676)	(135,914)	(43,762)	32.2%
Change in fair value of financial instruments	—	32,096	(32,096)	(100)%
Impairment of financial instruments	(880)	(980)	100	(10.2)%
Exchange differences	2,402	(5,439)	7,841	(144.2)%
Finance result	**(167,533)**	**(103,188)**	(64,345)	62.4%
Share of income/(losses) of equity accounted investees	(12,057)	(5,729)	(6,328)	110.5%
Profit before income tax from continuing operations	**368,299**	**397,325**	(29,026)	(7.3)%
Income tax expense	(73,660)	(79,442)	5,782	(7.3)%
Profit after income tax from continuing operations	**294,639**	**317,883**	(23,244)	(7.3)%
Consolidated profit for the period	**294,639**	**317,883**	(23,244)	(7.3)%
Profit attributable to the Parent	286,880	318,979	(32,099)	(10.1)%
Profit/(loss) attributable to non-controlling interests	7,759	(1,096)	8,855	807.9%

Net Revenues

Net revenues are calculated by subtracting certain chargebacks, cash discounts, volume rebates, Medicare and Medicaid discounts and other discounts from our gross revenue.

Net revenue increased by €303.2 million from €2.1 billion in the first half of 2018 to €2.4 billion in the first half of 2019. This 14.3% net revenue increase (8.6% in constant currency) is the result of growth in revenue in all of our divisions and geographic regions where we operate.

The following table reflects a summary of net revenues by each of our divisions for June 30, 2019, as compared to June 30, 2018:

Summary of Net Revenues by Division	Six-month Period Ended June 30, 2019	% of total net revenues	Six-month Period Ended June 30, 2018	% of total net revenues	% var	% var CC[(1)]
	(in thousands of euros, except for percentages)					
Bioscience	1,920,065	79.2%	1,689,875	79.7%	13.6%	7.6%
Diagnostic	348,674	14.4%	339,432	16.0%	2.7%	(1.4)%
Hospital	63,443	2.6%	58,734	2.8%	8.0%	7.4%
Bio Supplies	104,235	4.3%	40,124	1.9%	159.8%	148.0%
Others	11,095	0.5%	11,578	0.5%	(4.2)%	(10.2)%
Intersegments	(24,152)	(1.0)%	(19,625)	(0.9)%	23.1%	17.6%
Total	**2,423,360**	**100.0%**	**2,120,118**	**100.0%**	**14.3%**	**8.6%**

(1) Net revenue variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

Bioscience. Net revenues from the Bioscience Division served as the primary engine of growth, increasing by 13.6% (7.6% in constant currency) to €1,920.1 million in the first half of the year from 1,689.8 million in the same period in 2018. The continued division's growth was mainly fueled by strong global demand for immunoglobulin, as well as hyperimmune immunoglobulins in the United States.

Immunoglobulin sales remained robust, attaining double-digit growth. We are currently one of the global leaders in the production and sale of immunoglobulin, with 30.3% market share (volume) in the United States. We also recently received approval from the U.S. Food and Drug Administration (FDA) for Xembify®, its new 20% subcutaneous immunoglobulin used in the treatment of primary immunodeficiencies. This approval underscores our commitment to patients in the United States, where the company continues to allocate an increasing part of its production to meet demand. Its U.S. market launch is scheduled for the fourth quarter of 2019.

Sales of antitrypsin alpha-1 remain solid in the United States, Germany and Spain, with growing rates of diagnosis due to new solutions developed by the Diagnostic Division.

Albumin sales in China have started to recover following delays in the renewal process of specific licenses in the fourth quarter of 2018. Sales in China are expected to meet their projected growth for the year and pick up considerably in the second half of 2019.

Sales of factor VIII continue to decrease due to their declining use to treat patients with inhibitors. Our efforts to position its factor VIII as the optimal treatment for patients with hemophilia A have resulted in an enhanced tender market presence and higher sales volumes.

We continue to promote specialty proteins to enhance our differential product portfolio. Of note in the first half of 2019 was the upward trend in hyperimmune immunoglobulins, particularly sales of the new formulation anti-rabies immunoglobulin (HyperRAB®).

At the same time, we will be prepared for the launch of a new plasma-protein-based biosurgery solution. The market introduction of VISTASEAL®, designed to control surgical bleeding by combining our biologic fibrin sealant with Ethicon technology, is scheduled for the second half of the year. The Grifols-Ethicon agreement encompasses a second product combining our lyophilized thrombin, a blood-clotting protein, with Ethicon's hemostatic matrix SURGIFLO®. This product will offer surgeons more advanced options to accelerate and induce coagulation during surgery.

Diagnostic. Net revenues from the Diagnostic Division grew by 2.7% decreased by 1.4% constant currency) to €348.7 million in the first half of 2019 from €339.4 million in the same period in 2018.

Revenues generated from transfusional medicine solutions continue to drive the division's performance. Sales of NAT technology systems (Procleix® NAT Solutions), used to detect viruses in blood and plasma donations, maintain their contribution to the division's results.

Sales of the blood-typing line expanded by double digits. This product portfolio includes analyzers (Wadiana®, Erytra® and Erytra Eflexys®), gel cards (DG-Gel®) and reagents. Sales were especially robust in China, a market with high growth potential for the division; the United States, its primary market whose success directly reflects the division's strategic investments and solid sales plan; Latin America, particularly Mexico; and several countries in Asia and Europe.

Hospital. Net revenues from the Hospital Division increased by 8.0% (7.4% in constant currency) to €63.4 million from €58.7 million in the same period in 2018. The division reported strong sales in the United States, one of its core markets, and an upsurge in sales in all business lines.

Pharmatech sales were notably strong in the first half of the year, achieving double-digit growth. This line includes the inclusiv® IV compounding portfolio of devices, software and services to maximize the safety, quality and efficiency of hospital-pharmacy operations, including the MedKeeper® and Kiro Grifols® technological solutions.

As a leader in systems for sterile IV compounding for hospital pharmacies, we are poised to benefit from the recent rollout of new regulations affecting hospital pharmacy and compounding operations in the United States.

Sales of the division's IV solutions also grew, driven by the U.S. distribution of the physiological saline solution produced in Grifols' Murcia (Spain) plant and their usage in its proprietary network of plasma donation centers. Sales of medical devices, clinical nutrition products and contract manufacturing also remained strong.

Bio Supplies. Net revenues from the Bio Supplies Division totaled €104.2 million for the six-month period ended June 30, 2019, attaining 159.8% growth (148.0% in constant currency) from €40.1 million as compared to the same period in 2018.

The division primarily oversees sales of biological products for non-therapeutic use and third-party plasma sales by Haema and Biotest US (€72.3 million in the first half of the year).

Others. Net revenue from Others decreased by 4.2% (10.2% in constant currency) from €11.6 million on June 30, 2018 to €11.1 million on June 30, 2019.

The following table reflects a summary of net revenue by each of our geographic regions for June 30, 2019, as compared to June 30, 2018:

Summary of Net Revenue by Region	Six-month Period Ended June 30, 2019	% of total net revenue	Six-month Period Ended June 30, 2018	% of total net revenue	% var	% var CC[1]
	(in thousands of euros, except for percentages)					
European Union[2]	420,329	17.3	369,207	17.4	13.8	13.7
United States and Canada	1,648,343	68.0	1,412,542	66.6	16.7	8.8
Rest of the World	354,688	14.7	338,369	16.0	4.8)	2.3
Total	**2,423,360**	**100.0**	**2,120,118**	**100.0**	**14.3**	8.6

(1) Net revenue variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

(2) Net revenue earned in the European Union includes net revenue earned in Spain.

We believe that our ongoing internationalization has helped to improve our sales performance. We have seen a stabilization in the proportion of net revenue to total net revenue accounted for by Spain, as we continue to focus on increasing sales in regions less affected by austerity measures, with shorter payment periods and better margins. In the first half of 2019, 94.5% of net revenue, or €2.3 billion, was derived from countries outside of Spain. International expansion remains a strategic priority to stimulate organic growth, although each division focuses on specific markets and distinct strategies to optimize sales.

Revenues in the United States and Canada grew by 16.7% (8.8% at constant currency) in the first half of 2019 to €1,648.3 million. Meanwhile, sales in the European Union rose by 13.8% (13.7% at constant currency) to €420.3 million, headed by growth in Spain, Germany and the United Kingdom. Sales in the rest of the world slightly increased, by 4.8% (2.3% at constant currency) to €354.7 million.

Cost of sales

Cost of sales increased by 16.5% from €1.1 billion in the first half of 2018 to €1.3 billion in the first half of 2019. Cost of sales as a percentage of net revenue increased to 53.5% compared to 52.5% in the first half of 2018. This was mainly due to the evolution of plasma costs and industrial efficiencies.

Gross Margin

Gross margin increased by 11.9% from €1.0 billion in the first half of 2018 to €1.1 billion in the first half of 2019 due to the factors listed above.

Research and development

Research and development spending increased by 18.1% from €112.2 million (5.3% of net revenue) in the first half of 2018 to €132.6 million (5.5% of net revenue) in the first half of 2019. We decided to increase our research and development investment in certain projects, specifically those related to albumin, in light of the positive results of the AMBAR trial and trials on liver diseases (PRECIOSA and APACHE studies).

Sale, general and administration expenses

Sale, general and administration expenses increased by 16.3% from €387.8 million in the first half of 2018 to €451.0 million in the first half of 2019 due to increase our efforts on operating cost linked to commercial operations and on global expansion including the strategic alliance with Shanghai RAAS in China.

Finance result

Finance result increased by 62.4% from €103.2 million in the first half of 2018 to €167.5 million in the first half of 2019 due to interest rate variations and a new accounting standard leases, mainly affecting plasma donation centers. Of note is the positive impact in 2018 from the disinvestment in TiGenix for €32 million.

Income tax expense

Income tax expense decreased by 7.3% from €79.4 million in the first half of 2018 to €73.7 million in the first half of 2019 due to decrease of the profit before tax.

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

The following discussion and analysis contains information regarding our results of operations for the year ended December 31, 2018 as compared to the year ended December 31, 2017:

	Year Ended December 31,		Change	
	2018	2017	€	%
	(in thousands of euros, except for percentages)			
Continuing Operations				
Net revenue	4,486,724	4,318,073	168,651	3.9%
Cost of sales	(2,437,164)	(2,166,062)	(271,102)	12.5%
Gross profit	**2,049,560**	**2,152,011**	(102,451)	(4.8)%
Research and development	(240,661)	(288,320)	47,659	(16.5)%
Selling, general and administration expenses	(814,775)	(860,348)	45,573	(5.3)%
Operating expenses	**(1,055,436)**	**(1,148,668)**	93,232	(8.1)%
Operating result	**994,124**	**1,003,343**	(9,219)	(0.9)%
Finance income	13,995	9,678	4,317	44.6%
Finance costs	(293,273)	(263,344)	(29,929)	11.4%
Change in fair value of financial instruments	—	(3,752)	3,752	—%
Impairment and gains/(losses) on disposal of financial instruments	30,280	(18,844)	49,124	(260.7)%
Exchange differences	(8,246)	(11,472)	3,226	(28.1)%
Finance result	**(257,244)**	**(287,734)**	30,490	(10.6)%
Share of (losses) of equity accounted investees	(11,038)	(19,887)	8,849	(44.5)%
Profit before income tax from continuing operations	**725,842**	**695,722**	30,120	4.3%
Income tax expense	(131,436)	(34,408)	(97,028)	282.0%
Profit after income tax from continuing operations	**594,406**	**661,314**	(66,908)	(10.1)%
Consolidated profit for the year	**594,406**	**661,314**	(66,908)	(10.1)%
Profit attributable to the Parent	596,642	662,700	(66,058)	(10.0)%
Loss attributable to non-controlling interests	(2,236)	(1,386)	(850)	61.3%

Net Revenues

Net revenues are calculated by subtracting certain chargebacks, cash discounts, volume rebates, Medicare and Medicaid discounts and other discounts from our gross revenue.

Net revenues increased by €168.7 million from €4.3 billion in 2017 to €4.5 billion in 2018. This 3.9% (9.2% at constant currency) net revenue increase is the result of growth in revenue in all of our divisions and geographic regions where we operate at constant currency.

The following table reflects a summary of net revenues by each of our divisions for 2018, as compared to 2017.

Summary of Net Revenue by Division	Year ended December 31, 2018	% of total net revenues	Year ended December 31, 2017	% of total net revenues	% var	% var CC[(1)]
	(in thousands of euros, except for percentages)					
Bioscience	3,516,704	78.4%	3,429,785	79.4%	2.5%	8.0%
Diagnostic	702,265	15.6%	732,369	17.0%	(4.1)%	0.7%
Hospital	119,454	2.7%	105,649	2.4%	13.1%	16.0%
Bio Supplies	167,004	3.7%	66,791	1.6%	150.0%	154.9%
Others	22,451	0.5%	18,263	0.4%	22.9%	29.6%
Intersegments	(41,154)	(0.9)%	(34,784)	(0.8)%	18.3%	24.8%
Total	**4,486,724**	**100.0%**	**4,318,073**	**100.0%**	**3.9%**	**9.2%**

(1) Net revenues variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

Bioscience. Net revenues for the Bioscience division increased by 2.5% (8.0% at constant currency) from €3.4 billion in 2017 to €3.5 billion in 2018. This increase was primarily due to robust sales of the main plasma proteins—immunoglobulin, albumin and alpha-1 antityspsin. Sales growth of these plasma proteins, together with certain specialty immunoglobulins, offset the decline in sales of Factor VIII. The renewal processes of certain licenses in China were unexpectedly delayed in the last quarter of 2018, impacting sales.

The demand for immunoglobulin remains strong in our core markets, especially in the United States and EU countries led by Spain, Germany and the United Kingdom. Sales also grew in Turkey, Brazil and Australia, where, in addition to primary immunodeficiencies, immunoglobulins are also used to treat secondary immunodeficiencies and neurological diseases like chronic inflammatory demyelinating polyneuropathy (CIPD), a market segment led by us. We achieved double-digit growth in immunoglobulin sales in 2018 and plan on launching a 20% subcutaneous immunoglobulin in the second half of 2019 that will increase our market share.

Albumin sales grew markedly in the United States and in several European countries including Italy, the United Kingdom and Turkey. China is a market with significant underlying demand and remains a core focus in our global sales strategy. We continue to lead in alpha-1 antitrypsin sales. Market penetration of this plasma protein grew in the United States and main EU markets thanks to effective sales strategies and an increase in the number of diagnosed patients. The FDA recently approved our new genetic test for alpha-1 deficiency and Prolastin®-C Liquid. This liquid formulation enhances our respiratory franchise and offers a new treatment alternative for patients.

Sales of Factor VIII dropped notably in 2018 due to their declining use to treat patients with inhibitors. We position Factor VIII as the best treatment for hemophilia A patients, and are concentrating our efforts in the United States and emerging markets.

We continue to promote specialty proteins to improve our differential product portfolio. Two new formulations helped boost sales in the specialty hyperimmunoglobulins segment: an anti-rabies immunoglobulin (HyperRAB®) with twice the potency (300 IU/ml) of currently available rabies immunoglobulin options and GamaSTAN®, an intramuscular immunoglobulin for patients exposed to hepatitis A or measles. Both products earned FDA approval in the first half of 2018.

Diagnostic. Net revenues for the diagnostic division decreased by 4.1% (increased by 0.7% at constant currency) from €732.4 million in 2017 to €702.3 million in 2018. We are the worldwide leader in transfusional diagnostics, the division's main engine for growth in 2018. This business area includes NAT donor-screening diagnostics (Procleix® NAT Solutions), blood-typing solutions and the production of antigens for immunoassays.

Higher NAT solutions sales were primarily driven by a greater volume of plasma donations and increased use of the Zika-virus screening test (Procleix® Zika Virus). We also broadened our product portfolio with newly FDA-approved reagents to detect HIV, hepatitis B and C virus (Procleix® Ultrio Elite), and the West Nile virus (Procleix® WNV), among others.

Outside of the United States, sales of this innovative technology were also strong in Latin America, Poland and Indonesia. We continue our efforts to raise our presence in the Middle East.

The line of blood-typing products contributed to the division's overall performance, particularly in the United States, core markets in Latin America, Europe and Saudi Arabia.

European sales of Erytra Eflexis® increased, with more than 200 units sold since its launch in June 2017. We have also introduced the product in the United States in 2019 after earning FDA approval in December 2018. In 2018, a new line of conventional antiserums earned FDA approval and was released, broadening our product portfolio.

We further consolidated our line of antigens to produce immunoassays in 2018.

Revenues in specialty diagnostics remained stable and are expected to rise as we widen our clinical diagnostics offerings. In 2018, the FDA approved two diagnostic products designed to detect autoimmune diseases. Both were developed by AESKU and distributed by us on the Helios platform.

We are committed to developing new diagnostic tests for personalized medicine through Progenika Biopharma. Its molecular diagnostic ID CORE XT for genotyping blood groups recently earned FDA approval.

Hospital. Net revenues from the Hospital division increased by 13.1% (16.0% at constant currency) from €105.6 million in 2017 to €119.5 million in 2018. Sales of all business lines grew, especially the Pharmatech line in the U.S. market. A key strategic area for future growth, this business line offers integral services to hospital pharmacies for IV compounding, including MedKeeper and Kiro Oncology products. The division also reported stronger IV solutions sales, particularly the physiological saline solution manufactured in the Murcia (Spain) plant. The product was introduced in the U.S. market after obtaining FDA approval and is also used in our own network of plasma centers. As evidenced by the division's growth, we have bolstered our presence in the United States and executed various aspects of the group's global expansion strategy. Sales of the Nutrition and Medical Devices lines also increased, accompanied by an increase in third-party manufacturing services.

Bio Supplies. The division records sales of biological products for non-therapeutic use and other biological products, as well as those related to the fractionation and purification agreements signed with Kedrion and third-party plasma sales channeled through Haema and Biotest US.

Net revenue from Bio Supplies increased by 150.0% (154.9% at constant currency) from €66.8 million in 2017 to €167.0 million in 2018 mainly as a result of third-party plasma sales channeled through Haema and Biotest US, which represented €80.3 million in 2018.

Others. Net revenues from Others increased by 22.9% (29.6% at constant currency) from €18.2 million in 2017 to €22.5 million in 2018.

The following table reflects a summary of net revenue by each of our geographic regions for 2018 as compared to 2017:

Summary of Net Revenues by Region	Year ended December 31, 2018	% of total net revenues	Year ended December 31, 2017	% of total net revenues	% var	% var CC[1]
	(in thousands of euros, except for percentages)					
European Union[2]	800,274	17.8	686,983	15.9	16.5	16.7
United States and Canada	2,974,429	66.3	2,896,505	67.1	2.7	8.7
Rest of the World	712,021	15.9	734,585	17.0	(3.1)	4.0
Total	**4,486,724**	**100.0**	**4,318,073**	**100.0**	**3.9**	9.2

(1) Net revenues variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

(2) Net revenues earned in the European Union includes net revenue earned in Spain.

We believe that our ongoing internationalization has helped to improve our sales performance. We have seen a stabilization in the proportion of net revenues to total net revenues accounted for by Spain, as we continue to focus on increasing sales in regions less affected by austerity measures, with shorter payment periods and better margins. In 2018, 94.1% of net revenue, or €4.2 billion, was derived from countries

outside of Spain. International expansion remains a strategic priority to stimulate organic growth, although each division focuses on specific markets and distinct strategies to optimize sales.

Revenues in the United States and Canada grew by 2.7% (8.7% at constant currency) in 2018 to €2,974.4 million. Meanwhile, sales in the European Union rose by 16.5% (16.7% at constant currency) to €800.3 million, headed by growth in Spain, Germany, the United Kingdom and France. Sales in the rest of the world slightly contracted, registering a 3.1% (increased by 4.0% at constant currency) decrease to €712.0 million.

Cost of sales

Cost of sales increased by 12.5% from €2.2 billion in 2017 to €2.4 billion in 2018. Cost of sales as a percentage of net revenue increased to 54.3% in 2018 compared to 50.2% in 2017. This was mainly due to the impact of higher plasma procurement costs relative to our efforts, both organic and inorganic, to increase our plasma supply and meet the solid demand of our plasma-derived therapies.

Gross Profit

The decrease in gross profit margin from 49.8% of net revenue in 2017 to 45.7% in 2018 was mainly due to higher plasma procurement costs and also affected by temporary albumin sales restriction in China, the geographic mix of Factor VIII sales, tender volatility, and the product mix of the Diagnostic division, which reported stronger demand for antigens used to produce immunoassays and transfusion-medicine diagnostic instruments.

Research and development

Research and development spending decreased from €288.3 million (6.7% of net revenue) in 2017 to €240.7 million (5.4% of net revenue) in 2018 mainly due to the specific impairment of Aradigm's assets related to R&D. Excluding this impairment, we decided to increase our research and development investment in certain projects, specifically those related to albumin, in light of the positive results of the AMBAR trial and trials on liver diseases (PRECIOSA and APACHE studies).

Selling, general and administration expenses

Selling, general and administration expenses decreased by 5.3% from €860.3 million in 2017 to €814.8 million in 2018 mainly as a result of optimization projects.

Finance result

Finance result decreased by 10.6% from €287.7 million in 2017 to €257.2 million in 2018. This decrease was primarily a result of the impairment and gains/losses on disposal of financial instruments which included the positive impact from the divestment in TiGenix for €32 million. Finance results also includes the amortization of capitalized costs related to our debt.

Income tax expense

In 2018, we had a profit before income tax from continuing operations of €725.8 million and income tax expense of €131.4 million, which represents a tax rate of 18.1%. Our effective tax rate decreased from 27.3% in 2017, excluding the non-recurring impact of the U.S tax reform and the tax effect of the specific impairment of Aradigm's assets and of cost resulting from the acquisition and subsequent integration of the NAT technology donor-screening business, basically due to a change of country mix-in profits.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

The following discussion and analysis contains information regarding our results of operations for the year ended December 31, 2017, as compared to the year ended December 31, 2016:

	Year Ended December 31,		Change	
	2017	2016	€	%
	(in thousands of euros, except for percentages)			
Continuing Operations				
Net revenues	4,318,073	4,049,830	268,243	6.6%
Cost of sales	(2,166,062)	(2,137,539)	(28,523)	1.3%
Gross profit	**2,152,011**	**1,912,291**	239,720	12.5%
Research and development	(288,320)	(197,617)	(90,703)	45.9%
Selling, general and administration expenses	(860,348)	(775,266)	(85,082)	11.0%
Operating expenses	**(1,148,668)**	**(972,883)**	(175,785)	18.1%
Operating result	**1,003,343**	**939,408**	63,935	6.8%
Finance income	9,678	9,934	(256)	(2.6)%
Finance costs	(263,344)	(244,829)	(18,515)	7.6%
Change in fair value of financial instruments	(3,752)	(7,610)	3,858	(50.7)%
Impairment and gains/(losses) on disposal of financial instruments	(18,844)	—	(18,844)	—
Exchange differences	(11,472)	8,916	(20,388)	(228.7)%
Finance result	**(287,734)**	**(233,589)**	(54,145)	23.2%
Share of losses of equity accounted investees	(19,887)	6,933	(26,820)	(386.8)%
Profit before income tax from continuing operations	**695,722**	**712,752**	(17,030)	(2.4)%
Income tax expense	(34,408)	(168,209)	133,801	(79.5)%
Profit after income tax from continuing operations	**661,314**	**544,543**	116,771	21.4%
Consolidated profit for the year	**661,314**	**544,543**	116,771	21.4%
Profit attributable to the Parent	662,700	545,456	117,244	21.5%
Loss attributable to non-controlling interests	(1,386)	(913)	(473)	51.8%

The consolidated profit for 2017 included non-recurring items associated with the impact of U.S. tax reform and the specific impairment of Aradigm's assets.

Net Revenue

Net revenue is calculated by subtracting certain chargebacks, cash discounts, volume rebates, Medicare and Medicaid discounts and other discounts from our gross revenue.

Net revenue increased by €268 million from €4.0 billion in 2016 to €4.3 billion in 2017. This 6.6% (7.2% at constant currency) net revenue increase is the result of a significant upturn in revenues in all of our divisions and regions where we operate.

The following table reflects a summary of net revenue by each of our divisions for 2017, as compared to 2016:

Summary of Net Revenue by Division	Year ended December 31, 2017	% of total net revenue	Year ended December 31, 2016[2]	% of total net revenue	% var	% var CC[1]
	(in thousands of euros, except for percentages)					
Bioscience	3,429,785	79.4%	3,195,424	78.9%	7.3%	7.9%
Diagnostic	732,369	17.0%	691,701	17.1%	5.9%	6.8%
Hospital	105,649	2.4%	102,251	2.5%	3.3%	3.3%
Bio Supplies	66,791	1.6%	57,239	1.4%	16.7%	18.1%
Others	18,263	0.4%	34,601	0.9%	(47.2)%	(45.4)%
Intersegments	(34,784)	(0.8)%	(31,386)	(0.8)%	10.8%	11.3%
Total	**4,318,073**	**100.0%**	**4,049,830**	**100.0%**	**6.6%**	**7.2%**

(1) Net revenue variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

(2) Comparable revenues considering intersegment sales and the reclassification of the biological products for non-therapeutic use sales that are reported as Bio Supplies division sales from January 2017.

Bioscience. Net revenue for the Bioscience division increased by 7.3% (7.9% at constant currency) from €3.2 billion in 2016 to €3.4 billion in 2017. This increase was primarily due to volume growth for our main plasma products, with a moderate increase in pricing. The geographic mix of our sales had a negative impact on revenues due to higher sales volumes of blood clotting factors in more competitive price environments, subject to public tenders in certain emerging markets.

- Immunoglobulin volume sales were robust throughout the year, especially in the United States and the main European markets, with growing contributions by specific countries such as Australia and Turkey. Growing global demand for this plasma protein to treat neurological conditions such as chronic inflammatory demyelinating polyneuropathy (CIDP) was evident in core geographies like the United States, where we are the market leader. We also continue to promote diagnostic programs to identify patients with immunodeficiencies that could benefit from immunoglobulin therapies.
- Sales of Alpha-1 antitrypsin continued to grow. Higher rates of diagnosis of alpha-1 antitrypsin deficiency, particularly in the United States, Canada and several European countries, drove higher sales of this protein. Demand also grew in certain Latin American countries, although more incipiently.
- Sales of albumin, continued to drive the division's growth, especially in China, the European Union and Latin America. Brazil, Indonesia and several Middle Eastern countries also saw an increase in sales attributable to the division's commercial efforts.
- Sales volume of factor VIII continued to grow in a competitive price environment subject to public tenders in certain emerging markets.
- Specialty proteins also drove growth. Hyperimmune immunoglobulin sales were particularly strong. We also signed an agreement with Spain's Ministry of Health to supply tetanus and diphtheria vaccines beginning in April 2017. We market these vaccines pursuant to an agreement with MassBiologics of the University of Massachusetts Medical School in the United States.

Diagnostic. Net revenue for the Diagnostic division increased by 5.9% (6.8% at constant currency) from €692 million in 2016 to €732 million in 2017. This increase was mainly due to the transfusion medicine business, the division's main growth driver, as described below.

- Sales of NAT donor screening systems (Procleix® NAT Solutions), used to screen blood and plasma donations, were the division's leading source of revenues. Additional revenue streams included sales of the Zika virus blood screening tests in the United States and greater market penetration in the Asia Pacific region, particularly in Japan, China, Saudi Arabia, Israel and Singapore.
- Sales of antigens used to manufacture diagnostic immunoassays, marketed as part of the joint business agreement with Ortho Clinical Diagnostics continued to increase.
- The blood typing and immunohematology line also contributed to the division's revenues. Sales of blood typing reagents were exceptionally strong in China as a result of commercial efforts implemented in this key region, as well as in the United States, a market where we believe we have substantial growth potential. This upward trend was also seen in certain European countries, including Hungary, Italy, Switzerland, Spain and France. Geographic expansion is one of the main drivers of growth in this division.

Specialty diagnostics revenues remained stable, and will benefit as the division progressively expands its clinical diagnostics product portfolio. We continue to concentrate our efforts on developing new diagnostic tests for personalized medicine through Progenika Biopharma. It has also strengthened the commercialization of our hemostasis line thanks to an exclusive global distribution agreement with Beckman Coulter.

Hospital. Net revenue from the Hospital division increased by 3.3% (3.3% at constant currency) from €102.3 million in 2016 to €105.6 million in 2017. We continue to promote the internationalization of the division. In 2017, 32% of net revenue was generated outside Spain, as compared to 29% in 2016. Sales are growing in Spain, the United States and Latin America as a result of our global expansion efforts by area of specialization, Pharmatech, which includes Hospital Logistics and IV Tools, and the Intravenous Therapies and the nutrition lines were the main drivers of growth. There was notable growth in the third-party manufacturing business line from new contracts in the United States.

Bio Supplies. As of January 2017, the Bio Supplies division included revenues previously included in Raw Materials. The division records sales of biological products for non-therapeutic use and other biological products, as well as those related to the fractionation and purification agreements signed with Kedrion.

Net revenue from Bio Supplies increased by 16.7% (18.1% at constant currency) from €57.2 million in 2016 to €66.8 million in 2017 mainly as a result of Kedrion related revenues and sales of biological products for non-therapeutic use.

The following table reflects a summary of net revenue by each of our geographic regions for 2017 as compared to 2016:

Summary of Net Revenue by Region	Year ended December 31, 2017	% of total net revenue	Year ended December 31, 2016[3]	% of total net revenue	% var	% var CC[1]
	(in thousands of euros, except for percentages)					
European Union[2]	686,983	15.9	651,496	16.1	5.4	5.9
United States and Canada	2,896,505	67.1	2,707,579	66.9	7.0	7.7
Rest of the World	734,585	17.0	690,755	17.0	6.3	6.9
Total	**4,318,073**	**100.0**	**4,049,830**	**100.0**	6.6	7.2

(1) Net revenue variance in constant currency is determined by comparing adjusted current period net revenue, calculated using prior period monthly average exchange rates, to the prior period net revenue. See "Presentation of Financial and Other Information".

(2) Net revenue earned in the European Union includes net revenue earned in Spain.

(3) Comparable considering the new divisional structure that allocates "Raw Materials and Others" by region.

We believe that our ongoing internationalization has helped to improve our sales performance. We have seen a gradual reduction in the proportion of net revenue to total net revenue accounted for by Spain, as we continue to focus on increasing sales in regions less affected by austerity measures, with shorter payment periods and better margins. In 2017, 94% of net revenue, or €4.1 billion, was derived from countries outside of Spain. International expansion remains a strategic priority to stimulate the Company's organic growth, although each division focuses on specific markets and distinct strategies to optimize sales.

The United States has become a core market for the three main divisions. Revenues in the United States and Canada grew by 7.0% (7.7% at constant currency) in 2017 to €2,896.5 million. Meanwhile, sales in the European Union rose by 5.4% (5.9% at constant currency) to €687.0 million, headed by growth in Spain, Germany, the United Kingdom and France. Sales in the rest of the world also expanded, registering a 6.3% (6.9% in constant currency) increase to €734.6 million. Especially noteworthy were the positive sales trends in China and Australia, which led the Asia-Pacific region; growth in Latin America, especially Brazil; and the gradual market penetration in Turkey and the Middle East, including Saudi Arabia and Israel.

Cost of sales

Cost of sales increased by 1.3% from €2.1 billion in 2016 to €2.2 billion in 2017. Cost of sales as a percentage of net revenue improved to 50.2% compared to 52.8% in 2016. This was mainly due to the impact of the NAT donor-screening business acquired in January 2017 offset by the higher costs in the cost of sales as a the result of the investment plan to open new plasma collection centers.

Gross Profit

The increase in gross profit margin from 47.2% of net revenue in 2016 to 49.8% in 2017 was mainly due to the impact of the NAT donor-screening business acquired in January 2017 offset by the higher costs as a result of the investment plan to open new plasma collection centers.

Research and development

Research and development spending increased from €197.6 million (4.9% of net revenue) in 2016 to €288.3 million (6.7% of net revenue) in 2017. Excluding the specific impact of the impairment of Aradigm's assets, research and development expenses comprised €223.7 million (5.2% of net revenue), 13.2% higher than in 2016. Our spending was focused on strengthening our pipeline, including in-house and external investments in research.

Selling, general and administration expenses

Selling, general and administration expenses increased by 11.0% from €775.3 million in 2016 to €860.3 million in 2017 mainly as a result of expenses relating to the integration of the NAT technology donor-screening business acquired in January 2017. Excluding these integration expenses, selling, general and administration expenses increased by 8.3% year-over-year, explained by the activity growth in all divisions and the NAT donor-screening business acquired in January 2017, and comprised 19.4% of net revenue, compared to 19.1% in 2016.

Finance result

Finance result increased by 23.2% from €233.6 million in 2016 to €287.7 million in 2017. This increase was primarily a result of the higher levels of debt assumed after acquiring a portion of the NAT technology donor-screening business in January 2017, and from the specific impairment of Aradigm's assets. Excluding the impacts of these specific events, the finance result would have been €269.3 million or 15.3% higher than in 2016. Finance result also includes the amortization of capitalized costs related to our debt.

Income tax expense

In 2017, we had a profit before income tax from continuing operations of €695.7 million and income tax expense of €34.4 million, which represents a tax rate of 4.9%. The U.S. corporate tax reform approved on December 22, 2017 required Grifols to recognize non-recurring income that significantly affected our tax expense reported for 2017. The reduction from 35% to 21% on the U.S. federal corporate income tax rate (effective starting January 1, 2018) required a revaluation of Grifols U.S. deferred tax assets and liabilities. The net positive effect on the group's 2017 results was €171.2 million. Excluding the non-recurring impact of the U.S. tax reform and the tax effect of the specific impairment of Aradigm's assets and of costs resulting from the acquisition and subsequent integration of the NAT technology donor-screening business, the effective tax rate was 27.3%, compared to an effective tax rate of 23.6% in 2016.

Impact of Inflation

We historically have not been affected materially by inflation in our core geographies.

Liquidity and Capital Resources

Uses and Sources of Funds

Our principal liquidity and capital requirements consist of costs and expenses relating to the operation of our business, capital expenditures for existing and new operations and debt service requirements relating to our existing and future debt. Historically, we have financed our liquidity and capital requirements through internally generated cash flows, mainly attributable to revenue and debt financings. As of December 31, 2018 and June 30, 2019, our cash and cash equivalents totaled €1,033.8 million and €553.7 million, respectively. In addition, as of December 31, 2018 and June 30, 2019, we had the equivalent of €405 million and €415 million respectively, available under our debt agreements, including the equivalent of €262 million available as revolving loans under our Existing Credit Facilities. Our Existing Credit Facilities require that we maintain "net leverage" (as defined in the Existing Credit Facilities) as of the end of each fiscal quarter of 5.00:1.00, and we were in compliance with this financial covenant at September 30, 2019 with net leverage of 4.35:1.00.

We expect our cash flows from operations combined with our cash balances and availability under the Revolving Loans from the New Credit Facilities and other bank debt to provide sufficient liquidity to fund our current obligations, projected working capital requirements, and capital expenditures for at least the next twelve months. Currently, we do not generate significant cash in any country that might have restrictions for funds repatriation, and we estimate that the existing cash located in Ireland, Spain and the United States, along with the cash generated from operations, will be sufficient to meet future cash needs in key countries.

Historical Cash Flows

The following cash flow statement information is derived from the consolidated financial statements for the years ended December 31, 2018, 2017 and 2016 prepared under IFRS-EU.

	Year Ended December 31,		
	2018	2017	2016
	(in thousands of euros)		
Cash flows from operating activities			
Profit before tax	**725,842**	**695,722**	**712,752**
Adjustments for:	**454,378**	**556,792**	**391,986**
Amortization and depreciation	228,609	215,490	201,869
Other adjustments:	225,769	341,302	190,117
(Profit)/losses on equity accounted investments	11,038	19,888	(6,933)
Impairment of assets and net provision charges	(23,657)	66,047	(23,079)
(Profit)/losses on disposal of fixed assets	(6,700)	1,551	(2,987)
Government grants taken to income	(1,166)	(286)	(1,681)
Finance cost/(income)	232,962	263,657	236,034
Other adjustments	13,292	(9,555)	(11,237)
Change in operating assets and liabilities	**(112,639)**	**(65,800)**	**(164,319)**
Change in inventories	(231,670)	(165,508)	(173,003)
Change in trade and other receivables	(13,141)	80,112	(25,180)
Change in current financial assets and other current assets	(3,092)	(2,691)	(2,610)
Change in current trade and other payables	135,264	22,287	36,474
Other cash flows used in operating activities	**(330,153)**	**(344,968)**	**(387,141)**
Interest paid	(225,146)	(207,079)	(180,497)
Interest recovered	6,862	9,492	8,685
Income tax (paid)/received	(111,585)	(147,015)	(215,329)
Other recovered (paid)	(284)	(366)	—
Net cash from operating activities	**737,428**	**841,746**	**553,278**
Cash flows used in investing activities			
Payments for investments	**(852,536)**	**(2,209,667)**	**(509,078)**
Group companies associates and business units	(524,081)	(1,857,210)	(202,727)
Property, plant and equipment and intangible assets	(307,722)	(322,973)	(292,690)
Property, plant and equipment	(231,983)	(251,507)	(249,416)
Intangible assets	(75,739)	(71,466)	(43,274)
Other financial assets	(20,733)	(29,484)	(13,661)
Proceeds from the sale of investments	**70,669**	**23,787**	**2,426**
Property, plant and equipment	550	762	2,426
Other financial assets	70,119	23,025	—
Net cash used in investing activities	**(781,867)**	**(2,185,880)**	**(506,652)**
Cash flows from financing activities			
Proceeds from and payments for equity instruments	—	—	(11,766)
Payments for treasury stock	—	—	(12,686)
Sales of treasury stock	—	—	920
Proceeds from and payments for financial liability instruments	37,418	1,808,771	(80,149)
Issue	179,350	1,912,615	81,513
Redemption and repayment	(141,932)	(103,844)	(161,662)
Dividends and interest on other equity instruments	(275,783)	(218,260)	(216,151)
Dividends paid	(278,841)	(218,260)	(216,151)
Dividends received	3,058	—	—
Other cash flows from/(used in) financing activities	4,661	(156,446)	(21,492)
Financing costs included on the amortized costs of the debt	—	(142,288)	—
Other amounts from / (used in) financing activities	4,661	(14,158)	(21,492)
Transaction with minority interests with no loss of control	386,207	—	—
Net cash from/(used in) financing activities	**152,503**	**1,434,065**	**(329,558)**
Effect of exchange rate fluctuations on cash	39,207	(98,419)	35,441
Net increase in cash and cash equivalents	**147,271**	**(8,488)**	**(247,491)**
Cash and cash equivalents at beginning of the year	886,521	895,009	1,142,500
Cash and cash equivalents at year end	**1,033,792**	**886,521**	**895,009**

Net cash from Operating Activities

In 2018, we generated net cash from operating activities of €737.4 million. The principal effects on working capital were as follows:

- There was a positive impact of €33.3 million as a result of improvements in accounts receivable (included in the change in current trade and other receivables line item). The average collection period dropped to 22 days, compared to 24 days in 2017.
- Improved payment management led to a positive impact of €117.1 million (included in the change in current trade and other receivables line item).
- Increased inventory levels had a negative impact of €231.7 million due to higher volumes of plasma collected to meet the rising demand of the main plasma proteins. We aim to manage inventory in a way that anticipates the growing demand reflected by growth forecasts.

In 2017, we generated net cash from operating activities of €841.7 million. The principal effects on working capital were as follows:

- There was an increase of €86.9 million in trade receivables (included in change in current trade and other receivables in the table above) primarily due to improved accounts receivable balances. The average collection period at December 31, 2017 was 24 days, as compared to 37 days at December 31, 2016.
- There was an increase of €165.5 million in inventory levels due to ongoing improvements in value chain management amid a strong sales environment, particularly for plasma proteins. We actively manage its inventory levels in advance to meet its expected growth plans, inventory turnover was 275 days at December 31, 2017, compared with 281 days reported at December 31, 2016.
- Trade payables (included in change in current trade and other payables in the table above) increased by €4.3 million, while the average payment period decreased from 61 days at December 31, 2016 to 53 days at December 31, 2017.

In 2016, we generated net cash from operating activities of €553.3 million. The principal effects on working capital were as follows:

- There was an increase of €43.3 million in trade receivables (included in change in current trade and other receivables in the table above). The average collection period was 37 days, as compared to the 34 days level at December 31, 2015.
- There was an increase of €173.0 million in inventory levels due to the greater strength of sales, especially of plasma proteins, and the new openings of plasma collection centers. We continue to actively manage inventory levels on an anticipatory basis in order to match planned organic growth. In this regard, inventory turnover was 281 days at December 31, 2016, compared with 261 days reported at December 31, 2015.
- Trade payables (included in change in current trade and other payables in the table above) rose by €31.6 million due to the increase in the average payment period to 61 days in 2016.

Net Cash used in Investing Activities

Net cash used in investing activities amounted to €781.9 million in 2018, €2,186 million in 2017 and €506.7 million in 2016. Investments made in 2018 included the acquisition of a 51% equity interest in MedKeeper for $98 million, the acquisition of a 100% equity interest in Haema for €220 million and the acquisition of a 100% equity interest in Biotest US for $286 million. In December 2018, we sold our 100% equity interests in Haema and Biotest US to Scranton Enterprises B.V. for the aggregate amount of $538 million.

Investments made in 2017 included the acquisition of Hologic's assets related to the research, development and production of reagents and instruments based on NAT technology for $1,865 million, the acquisition of a 49% equity interest in Access Biologicals for $51 million, the acquisition of six plasma centers from Kedrion for €47 million, the acquisition of a 44% equity interest in GigaGen for $35 million, and the acquisition of a 40% equity interest in Kiro Grifols for a total of €12.8 million, increasing Grifols' aggregate equity interest in Kiro Grifols to 90%. Investments also included capital expenditures for a total of €271.1 million, allocated mainly to opening new plasma donation centers and the expansion, renovation and relocation of existing centers, as well as in the production plants of its three divisions.

Investments made in 2016 included the acquisition of a 49% equity interest in the IBBI Group for $100 million and the acquisition of shares in Progenika Biopharma for €25 million, increasing our equity interest in Progenika to 89.25%.

Net Cash from/(used in) Financing Activities

Net cash from financing activities was €152.5 million in 2018, primarily as a result of dividend payouts of €278.8 million and the subsequent sale of Haema and Biotest US. Grifols maintains operating control of the plasma centers and holds an exclusive and irrevocable call option for both companies.

Net cash from financing activities was €1,434 million in 2017, primarily as a result of our initial financing to acquire the share in the NAT technology donor-screening unit, and from dividend payouts of €218.3 million, which include the final dividend for 2016 and the interim dividend for 2017 distributed in December.

Net cash used in financing activities was €329.6 million in 2016, primarily as a result of the payment of dividends for a value of €216.2 million, including both the final dividend for 2015 and the interim dividend for 2016 distributed in December 2016.

Below are our consolidated statements of cash flow for the six-month period ended June 30, 2019 and 2018:

	Six-month Period ended June 30,	
	2019	2018
Cash flows from operating activities		
Profit before tax	**368,299**	**397,325**
Adjustments for:	**274,546**	**191,407**
Amortisation and depreciation	148,930	107,958
Other adjustments:	125,616	83,449
(Profit)/Losses on equity accounted investments	6,519	5,729
Impairment of Assets and net provision changes	(18,580)	(24,463)
Losses on disposal of fixed assets	595	855
Government grants taken to income	(787)	(482)
Finance cost / (income)	160,065	92,031
Other adjustments	(22,196)	9,779
Changes operating assets and liabilities	**(349,389)**	**(214,300)**
Change in inventories	(209,542)	(139,046)
Change in trade and other receivables	(53,441)	(63,263)
Change in current financial assets and other current assets	7,314	510
Change in current trade and other payables	(93,720)	(12,501)
Other cash flows used in operating activities	**(147,905)**	**(125,247)**
Interest paid	(127,500)	(103,459)
Interest recovered	4,424	4,548
Income tax paid	(22,744)	(26,305)
Other amounts paid	(2,085)	(31)
Net cash from operating activities	**145,551**	**249,185**
Cash flows from investing activities		
Payments for investments	**(433,904)**	**(399,859)**
Group companies and business combinations	(109,391)	(255,406)
Property, plant and equipment and intangible assets	(181,758)	(130,834)
Property, plant and equipment	(119,266)	(93,828)
Intangible assets	(62,492)	(37,006)
Other financial assets	(142,755)	(13,619)
Proceeds from the sale of financial investments	**0**	**70,119**
Proceeds from the sale of property, plant and equipment	**1,940**	**290**
Net cash used in investing activities	**(431,964)**	**(329,450)**
Cash flows from financing activities		
Proceeds from and payments for financial liability instruments	(102,105)	(19,789)
Issue	104,800	91,722
Redemption and repayment	(206,905)	(111,511)
Dividends and interest on other equity instruments paid and received	(98,423)	(140,168)
Dividends paid	(101,912)	(142,095)
Dividends received	3,489	1,927
Other cash flows from financing activities	(794)	(1,111)
Transaction with minority interests with no loss of control	1,120	0
Net cash used in financing activities	**(200,202)**	**(161,068)**
Effect of exchange rate fluctuations on cash and cash equivalents	**6,520**	**23,311**
Net decrease in cash and cash equivalents	**(480,095)**	**(218,022)**
Cash and cash equivalents at beginning of the period	**1,033,792**	**886,521**
Cash and cash equivalents at end of period	**553,697**	**668,499**

Net cash from Operating Activities

In the six-month period ended June 30, 2019 we generated net cash from operating activities of €145.6 million. The principal effects on working capital were as follows:

- There was an increase of €51.9 million in trade receivables (included in change in current trade and other receivables in the table above). The average collection period at June 30, 2019 was 25 days, as compared to 22 days at December 31, 2018.
- Trade payables (included in change in current trade and other payables in the table above) decreased by €65.6 million, while the average payment period decreased from 65 days at December 31, 2018 to 58 days at June 30, 2019.
- Increased inventory levels had a negative impact of €209.5 million due to higher volumes of plasma collected to meet the rising demand of the main plasma proteins.

Net Cash from/(used in) Investing Activities

Net cash used in investing activities amounted to €432 million for the six-month period ended June 30, 2019. Investments made in 2019 included mainly the acquisition of the remaining 51% equity interest in IBBI for €88 million and investments in Property, plant and equipment and intangible assets for an amount of €181.8 million.

Net Cash from/(used in) Financing Activities

Net cash from financing activities was €200.2 million during the six-month period ended June 30, 2019 as a result of dividend payouts of €101.9 million.

Working Capital

Our working capital, which is driven primarily by our trade receivables turnover and inventory aging, can vary significantly period to period depending on the activity. Our capital requirements will depend on many factors, including our rate of sales growth, acceptance of our products, continued access to adequate manufacturing capacities, maintaining cGMP compliant facilities, the timing and extent of research and development activities, and changes in operating expenses, including costs of production and sourcing of plasma, all of which are subject to uncertainty. We anticipate that our cash needs will be significant and that we may need to increase our borrowings under current or future debt agreements in order to fund our operations and strategic initiatives. We anticipate that our working capital will increase in absolute terms in order to grow our business.

Inventory Aging

Inventory aging average decreased from 2016 to 2017, as a result of ongoing improvements in value chain management and strong sales environment, particularly for plasma proteins. Inventory turnover rose to 275 days at December 31, 2017, compared to 281 days at December 31, 2016. In 2018, inventory turnover increased to 292 days as a result of the implementation of several initiatives to better anticipate and meet the solid demand for plasma-derived products. For the six- month period ended June 30, 2019, inventory turnover increased to 307 days as a result of the strategic decision to continue building up plasma volumes to better meet the solid demand for plasma-derived products.

Trade Receivables

Our receivables had an aging average of 22, 24 and 37 days at December 31, 2018, 2017 and 2016, respectively. We are focused on optimizing our working capital.

In the best interest of the Company, we may sell certain receivables with a maturity beyond 30 days. Certain receivables are sold to financial institutions without recourse. We sold €1,188 million, €912 million and €870 million of receivables to third parties during 2018, 2017 and 2016, respectively.

Capital Expenditures and Other Intangible Assets

The following table presents our additions of property, plant and equipment and intangible assets fully in the years ended December 31, 2018, 2017 and 2016, by division.

	Year Ended December 31,		
	2018	2017	2016
	(in thousands of euros)		
Bioscience division	220,531	227,635	197,741
Hospital division	15,354	10,429	9,193
Diagnostic division	58,064	70,032	89,760
Bio Supplies	2,050	198	84
Others	883	20,911	13,313
Unallocated	19,795	11,268	12,011
Total	**316,677**	**340,473**	**322,102**

Our capital expenditure for the six-month period ended June 30, 2019 was €128.6, compared to €102.1 during the same period in 2018.

January 2016 through December 2018

Facilities. The most important capital projects relating to the expansion and improvement of our manufacturing facilities during 2016, 2017 and 2018 were the following:

Parets site (Barcelona, Spain):

- investments to increase purification capacity of fibrin sealant and topic thrombin of €1.3 million in 2017 and €8.9 million in 2018;
- investments in a plant to manufacture Prolastin-C® of €13.2 million in 2016, €4.0 million in 2017 and €0.7 million in 2018;
- investments to increase the albumin purification capacity of €0.1 million in 2016, and €1.6 million in 2018;
- investments to increase Factor VIII manufacturing capacity of €3.4 million in 2018;
- investments in new production lines for diagnostic gel cards of €2.2 million in 2016, €1.2 million in 2017 and €0.7 million in 2018; and
- investments to increase the production of intravenous solutions bags of €1.2 million in 2016, €1.5 million in 2017 and €1.5 million in 2018.

Clayton site (North Carolina, United States):

- construction of a new immunoglobulins purification and filling plant for €0.4 million in 2017 and €13.4 million in 2018;
- construction of a new 6 million liter fractionation plan; for €2.6 million in 2016, €29.1 million in 2017 and €43.9 million in 2018;
- completing the construction and bringing online a new plasma fractionation facility for €0.7 million in 2016;
- completion of a new plasma warehouse for €0.1 million in 2016;
- construction of a new raw materials warehouse for less than €0.1 million in 2016;
- investments in manufacturing areas for Factor VIII employing the method used at our Parets site for €0.8 million in 2017 and €2.4 million in 2018;
- investments in a new area for IG subcutaneous for €0.4 million in 2016 and €2.2 million in 2017;
- investments of €4.8 million in 2016 and €0.9 million in 2017 for the construction of new aseptic filling areas, as well as validation of the new filling zone facilities and equipment for liquid and freeze-dried products;

- investments of €0.1 million in 2016 to expand the Gamunex purification area;
- construction of a convalescent plasma immunoglobulin facility to help develop treatments for diseases such as Ebola and others for €0.5 million in 2016; and
- land acquisitions in Clayton for €7.7 million in 2017 and €0.1 million in 2018.

Los Angeles (California, United States):

- increasing our albumin purification capacity and including a new presentation in ready-to-use flexible bags for €4.4 million in 2016, €1.5 million in 2017 and €0.8 million in 2018;
- investments to increase our IVIG purification capacity of €7.2 million in 2016, €2.6 million in 2017 and €0.9 million in 2018; and
- land and facilities acquisition in Los Angeles for €1.5 million in 2016.

Dublin (Ireland):

- aggregate investments of approximately €58 million to build a new headquarters, global operations and logistics center to serve as part of the new global operations center of the Bioscience division from 2015 to 2017 and €1.6 million in 2018; and
- investment in a new albumin purification and filling plant for bags of €2.6 million in 2016, €28.5 million in 2017 and €26.9 million in 2018.

San Diego (California, United States):

- aggregate investments of €13.1 million from 2017 to 2018 to expand manufacturing capacity for our NAT Diagnostic business, including quality control and research and development labs.

Other Investments:

- investments in serialization to enhance manufacturing and packaging identification of €1.3 million in 2016, €3.1 million in 2017 and €3.8 million in 2018;
- significant investments in new donor centers and donor center expansions in the United States: investments of €21.8 million in 2015, €31 million in 2016, €40.5 million in 2017 and €17.8 million in 2018;
- Emeryville, United States: investments of €33.3 million in 2016, €10.2 million in 2017 and €3.3 million in 2018 to consolidate the manufacturing of antigens in a new building;
- Campo Largo (Paraná), Brazil: land acquisition and construction of commercial offices and a plant to manufacture bags used for collection, storage and transfusion of blood components for €7.3 million in 2016, €3.7 million in 2017 and €2.2 million in 2018;
- Murcia, Spain: investments of €0.4 million in 2016, €0.2 million in 2017 and €0.1 million in 2018 to increase capacity to manufacture parenteral solutions by approximately eight million units, to approximately 35 million units and investments to increase Fleboflex manufacturing capacity of €2.3 million in 2016, €0.5 million in 2017 and €0.2 million in 2018;
- refurbishment of the Barcelona headquarters included €16.4 million in acquiring a new office building and investments in the refurbishment of the existing building of €1.0 million in 2016 and €0.6 million in 2017;
- acquisition of a new plot next to our Barcelona manufacturing facilities of 50,000 square meters that will allow future growth in both the Bioscience and Diagnostic divisions;
- investment in a new office building at the Clayton plant for €10.2 million in 2016 and €7.5 million in 2017; and
- investments to remodel our commercial offices worldwide of €1.6 million in 2016, €1.2 million in 2017 and €3.8 million in 2018, including new offices for Dubai, Paris, Beijing, Singapore, Chile and Tokyo.

January 2019 through December 2020

Pursuant to the Hologic Transaction, which was completed on January 31, 2017, we acquired a facility located in San Diego, California. At the San Diego facility, we will manufacture oligos and other critical components of the Transcripted Mediated Amplification NAT kits for blood and plasma infectious diseases screening. Specific components focused on HIV, Hepatitis B and C, Parvo and Zika are among those being manufactured at the San Diego facility.

We are undertaking an investment plan that includes, among other capital expenditures, approximately $360 million from 2016 through 2021 to expand manufacturing capacity for our plasma derived therapies. We plan to finance our projected capital expenditures with internally generated cash flow, cash on hand and debt financing. These expenditures are included in our current investment plan.

The majority of our investments benefit our Bioscience division, with the goal of improving the structure of our plasma collection centers in the United States and expanding our manufacturing facilities. We aim to optimize utilization of our fractionation capacity by obtaining FDA and EMA licenses and completing other requirements to purify any of our intermediate products at any of our plants.

We are also expanding and relocating plasma donation centers and improving infrastructures related to raw materials classification, preparation and storage facilities, logistics centers and analysis laboratories. As of June 30, 2019, we have 293 operational plasma collection centers and plan to have 325 approved plasma collection centers globally by 2023. The most important planned capital projects relating to the expansion and improvement of our manufacturing facilities are the following:

- Clayton: new fractionation building and purification and filling facility for 6 million liters of plasma annually
- Clayton: new quality control labs and new finished product warehouse
- Los Angeles: new fill & finish lines for Bioscience
- Murcia: investments to increase our plastic manufacturing capacity
- Dublin: completion of a purification, fill and finish plant for Albumin
- Emeryville: new manufacturing areas for Mammalian cells
- San Diego: expansion of blood testing systems
- construction of a new corporate building in Barcelona with an underground connection to unify the corporate site
- construction of new buildings for Bioscience and Diagnostic divisions on the new Barcelona Lliçà land
- construction of new plasma collection centers as well as further relocation and renovation of our existing centers and
- expansion of our testing labs in Austin, San Marcos and Germany.

Contractual Obligations

The following table presents our principal existing contractual obligations as of December 31, 2018, requiring future payments:

	Payments Due by Period				
	Total	Less than one year	One to three years	Three to five years	More than five years
	(in thousands of euros)				
Operating leases[1]	438,252	97,222	115,611	88,543	136,876
Financial debt obligations[2]	6,608,822	290,336	641,520	2,174,111	3,502,855
Interest—financial debt obligations[3]	1,232,329	240,890	241,141	721,025	29,273
Licenses and royalties[4]	24,284	4,291	8,336	8,287	3,370
Total	8,303,686	632,739	1,006,608	2,991,966	3,672,374

(1) Operating leases include primarily leases for our plasma collection centers, leases from sale-leaseback transactions and marketing offices worldwide. These amounts reflect only our contractual obligations as of December 31, 2018, and therefore assume that these operating leases will not be renewed or replaced with new operating leases upon expiration. Our operating lease expenses will likely be substantially higher than the amounts provided in this table because our operations will require us

to either renew or replace our operating leases. This table does not reflect the effects of IFRS 16, which came into effect on January 1, 2019.

(2) Includes principal amortization for short- and long-term debt including, among other things, capitalized lease obligations. The remaining financial debt was made up largely of bilateral facilities that bore interest at market rate.

(3) Interest payments on debt and capital lease obligations are calculated for future periods using interest rates in effect at the end of 2018. Certain of these projected interest payments may differ in the future based on changes in floating interest rates, foreign currency fluctuations or other factors or events. The projected interest payments only pertain to obligations and agreements outstanding at December 31, 2018.

(4) License and royalty payment formulas are generally based on volume of sales. The amounts presented in the table are calculated based on the net revenue of 2018 without assuming any growth in sales. Additionally, the column "More than five years" includes only one year of payments under the license agreement with Marca Grifols, which expires in January 2092.

Off-balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

Financial Derivatives

See Note 30 to our consolidated financial statements and Note 18 to our consolidated interim financial statements included in this offering memorandum for information regarding our derivative instruments.

The New Credit Facilities permit us to enter into hedging transactions.

Quantitative and Qualitative Disclosures about Market Risk

The risks inherent in our market-sensitive instruments are potential losses that may arise from adverse changes to interest rates, foreign exchange rates and market prices. We are subject to market risk resulting from changes in interest rates because such changes may affect the cost at which we obtain financing. We are subject to exchange rate risk with respect to our debt denominated in foreign currencies.

Currency Risk

We operate internationally and are exposed to currency risks when operating in foreign currencies, in particular with respect to the U.S. dollar. Currency risk is associated with future commercial transactions, recognized assets and liabilities and net investments in foreign operations.

We hold several investments in foreign operations, the net assets of which are exposed to currency risk. Currency risk affecting net assets of our foreign operations in U.S. dollars are mitigated primarily through borrowings in the relevant foreign currency. Our main exposure to currency risk is to the U.S. dollar, which is used in a significant percentage of our transactions in foreign currencies.

If the U.S. dollar had strengthened by 10% against the euro at December 31, 2018, equity would have increased by €506.1 million (€416.1 million at December 31, 2017) and profit due to foreign exchange differences would have increased by €4.1 million (€14.6 million at December 31, 2017). This analysis assumes that all other variables are held constant, especially that interest rates remain constant. A 10% weakening of the U.S. dollar against the euro at December 31, 2018, and 2017, would have had the opposite effect for the amounts shown above, all other variables being held constant.

Interest Rate Risk

Our interest rate risks arise from current and non-current borrowings. Borrowings at variable interest rates expose us to cash flow interest rate risks. The purpose of managing interest rate risk is to balance the debt structure, maintaining part of borrowings at fixed rates and hedging part of variable rate debt.

A significant part of the financing obtained during 2018 accrues interest at fixed rates. This fixed interest debt amounts to €1,000 million as of December 31, 2018, which represents 54% of our total debt in euros. The additional loans of €244 million received from the European Investment Bank represent 13% of our total debt in euros.

Our senior euro denominated debt represented 12% of our total senior debt at December 31, 2018 and at December 31, 2017. Total fixed-interest debt represented a total of 19% of debt at December 31, 2018, and 19% at December 31, 2017.

As of December 31, 2018, we were not participating in hedging of Euros or U.S. dollars. In previous years, the fair value of interest rate swaps, contracted to reduce the impact of rises in variable interest rates

(LIBOR and EURIBOR), were accounted for on a monthly basis. These derivative financial instruments complied with hedge accounting requirements.

If the interest rate had been 100 basis points higher during 2018, the interest expense would have increased by €53 million. A 100 basis points decrease in interest rates during 2018 would have had the opposite effect for the amounts shown above.

Market Price Risk

We are subject to price risk with respect to raw materials, which is mitigated by the vertical integration of the hemoderivatives business in a sector that is highly concentrated.

Consolidated financial statements and other data

The consolidated financial statements included in this offering memorandum include financial data in respect of the Issuer and both Guarantor and non-guarantor subsidiary companies.

The guarantee is a full and unconditional and joint and several guarantee of the Guarantors.

The Published EBITDA, the profit after income tax from continuing operations and total assets and their corresponding percentages for (i) the Issuer, (ii) the Guarantors and (iii) the non-guarantor companies represented in the consolidated financial statements included in the offering memorandum are set out below:

	Published EBITDA	Percentage of total Published EBITDA	Profit after Income Tax from Continuing Operations	Percentage of Total Profit after Income Tax from Continuing Operations	Total Assets	Percentage of Total Assets
Issuer	(67)	(5.5%)	(123)	(20.7%)	174	1.4%
Guarantors	988	80.8%	624	105.0%	7,481	60.0%
Non-guarantors	302	24.7%	94	15.8%	4,822	38.7%
Grifols Worldwide Operations Limited	157	12.8%	136	22.9%	2,777	22.3%
Grifols Therapeutics LLC	318	26.0%	212	35.7%	3,550	28.5%

The Published EBITDA and profit after income tax from continuing operations figures and total assets set out in the table above are as of and for the year ended December 31, 2018.

BUSINESS

History of Grifols

We were founded in 1940 in Barcelona, Spain by Dr. José Antonio Grifols i Roig, a specialist and pioneer in blood transfusions and clinical analysis and the grandfather of our current Chairman of the Board. We have been making and selling plasma derivative products for more than 70 years. Over the last 25 years, we have grown from a predominantly domestic Spanish company into a global company by expanding both organically and through acquisitions throughout Europe, the United States, Latin America and Asia.

We were incorporated in Spain as a limited liability company on June 22, 1987 under the name Grupo Grifols, S.A., and we changed our name to Grifols, S.A. in 2005. We conduct business under the commercial name "Grifols". Our principal executive office is located at Avinguda de la Generalitat, 152 Parque Empresarial Can Sant Joan, 08174 Sant Cugat del Vallès, Barcelona, Spain and our telephone number is +34 93 571 0500. Our registered office is located at c/Jesús y María, 6, Barcelona, Spain.

We are a vertically integrated global producer of plasma derivatives and we believe we rank in the top three largest producers in the industry. Our activities include sourcing raw material, manufacturing various plasma derivative products and selling and distributing final products to healthcare providers. We have expanded our plasma collection network and our manufacturing capacity through a combination of organic growth and acquisitions. As of December 31, 2018 we had 256 operating plasma collection centers located across the United States and Europe and a manufacturing capacity of approximately 14.8 million liters of plasma per year. As of June 30, 2019, we are the worldwide leader in plasma centers, with a network of 293 centers in the United States and Europe.

On March 7, 2019, we entered into a share-swap agreement with Shanghai RAAS Blood Products Co Ltd. ("Shanghai RAAS"), a leader in China's plasma derivatives sector, which is listed on the Shenzhen Stock Exchange, by means of which subject to regulatory approval, we will acquire 26.2% of the voting and economic rights in Shanghai RAAS in exchange for a contribution of 45% of the economic rights and 40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions Inc.

As part of the acquisition, we entered into an Exclusive Strategic Alliance Agreement pursuant to which Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. In exchange for royalties, we will provide technological and know-how support in the bioscience and diagnostic fields to Shanghai RAAS.

We plan to reach approximately 19 million liters fractionation capacity by 2021 and, as previously announced, 325 approved plasma collection centers globally by 2023.

We also research, develop, manufacture and market in vitro diagnostics products, including analytical instruments, reagents, software and associated products for use in clinical and blood bank laboratories and hospital products.

Our Class A shares have been listed on the Spanish Stock Exchanges since we completed our initial public offering on May 17, 2006 and are quoted on the SIBE under the ticker symbol "GRF". In January 2008, we became part of the IBEX 35 Index, which comprises the top 35 listed Spanish companies by liquidity and market capitalization. Our Class B shares were issued as part of the consideration for the Talecris acquisition and are listed on the Spanish Stock Exchanges and quoted on the SIBE under the ticker symbol "GRF.P". Our Class B shares are also traded in the United States on the NASDAQ Global Select Market in the form of ADSs, evidenced by ADRs, under the symbol "GRFS". Each ADS represents one of our Class B shares. Our ADSs are currently traded in U.S. dollars. In November 2011, our ADSs were added to the NASDAQ Biotechnology Index.

Our Company

We are one of the leading global specialty pharmaceutical companies developing, manufacturing and distributing a broad range of biological medicines on plasma derived proteins. These plasma derivatives are proteins found in human plasma, which, once isolated and purified, extend and enhance the lives of individuals who suffer from chronic and acute, often life threatening, conditions, such as primary and secondary immunological deficiencies, Chronic Inflammatory Demyelinating Polyneuropathy, or CIDP, A1PI deficiency and related emphysema, immune mediated ITP, Guillain Barré syndrome, Kawasaki disease, allogeneic bone marrow transplants, hemophilia A and B, von Willebrand disease, traumatic or hemorrhagic shock and severe burns. In addition, we have built a diagnostic business that focuses on researching, developing, manufacturing and marketing in vitro diagnostics products for use in clinical and blood bank laboratories. We also specialize in providing infusion solutions, nutrition products and medical devices for use in hospitals and clinics.

Our products and services are used by healthcare providers in over 100 countries to diagnose and treat patients with hemophilia, immune deficiencies, infectious diseases and a range of other medical conditions, and we have a direct presence, through the operation of commercial subsidiaries, in 30 countries.

In 2018, we believe we ranked in the top three largest producers in the plasma derivatives industry in terms of total sales globally. We believe we have a top three market position in various segments including A1PI, IVIG, Factor VIII and albumin as well as in terms of plasma collection centers and fractionation capacity.

For the year ended December 31, 2018, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €4,486.7 million, €594.4 million and €1,222.7 million, respectively, representing a Published EBITDA margin of 27.3%. For the six-month period ended June 30, 2019, our consolidated net revenues, profit after income tax from continuing operations and Published EBITDA were €2,423.4 million, €294.6 million and €696.8 million respectively, representing a Published EBITDA margin of 28.8%.

During 2018, we generated 66.3% of net revenues in the United States and Canada and 17.8% in Europe of which only 5.9% was generated in Spain.

In March 2019, we entered into a strategic alliance with Shanghai RAAS which will considerably improve our access to the fast growing Chinese plasma market. Under the agreement, upon completion of the transaction we will acquire 26.2% of the voting and economic rights in exchange for a contribution of 45% of the economic rights and 40% of the voting rights in our U.S. subsidiary, Grifols Diagnostic Solutions. Following the acquisition, Shanghai RAAS will be the exclusive distributor of our bioscience and diagnostic products in China. In exchange for royalties, we will provide technological and know-how support in the bioscience and diagnostic fields to Shanghai RAAS. We will also provide engineering services to Shanghai RAAS in exchange for fees, and Shanghai RAAS committed to using GDS NAT technology throughout its network of 41 plasma collection centers. The transaction is expected to close in the second half of 2019, pending approval by regulatory authorities.

We organize our business into five divisions: Bioscience, Diagnostic, Hospital, Bio Supplies (formerly Raw Materials) and Others. These divisions also represent our operating segments:

Bioscience. The Bioscience division includes activities relating to the manufacture of plasma derivatives for therapeutic use, including the receipt, analysis, quarantine, classification, fractionation and purification of plasma, and the sale and distribution of end products. The main plasma products we manufacture are IVIG, Factor VIII, A1PI and albumin. We also manufacture intramuscular (hyperimmune) immunoglobulins, ATIII, Factor IX and plasma thromboplastin component, or PTC. The Bioscience division accounted for €3.5 billion, or 78.4%, of our total net revenue in 2018. . For the six-month period ended June 30, 2019, revenues from Bioscience Division accounted for €1.9 billion, or 79.2%, of our total net revenue.

Diagnostic. The Diagnostic division focuses on researching, developing, manufacturing and marketing *in vitro* diagnostics products, including analytical instruments, reagents, software and associated products for use in clinical and blood bank laboratories, covering the entire value chain from donation to transfusion. We concentrate our Diagnostic business in transfusion medicine (nucleic acid testing, immunoassay and immunohematology) and specialty diagnostics such as hemostasis. The Diagnostic division's main customers are blood donation centers, clinical analysis laboratories and hospital immunohematology services. The Diagnostic division accounted for €702.3 million, or 15.6%, of our total net revenue in 2018, and €348.7 million, or 14.4%, of our total net revenue for the six-month period ended June 30, 2019.

Hospital. The Hospital division provides services manufactures products used by hospitals, blood banks, plasma collection centers and other healthcare systems. These products include parenteral solutions, robotics and software. It also includes products that we do not manufacture but that we market as supplementary to the products that we do manufacture. The Hospital division accounted for €119.5 million, or 2.7%, of our total net revenue in 2018, and €63.4 million, or 2.6%, of our total net revenues in the six-month period ended June 30, 2019.

Bio Supplies. Since January 2017, net revenue from Bio Supplies primarily relate to all transactions of biological products for non-therapeutic use previously recorded under the Bioscience segment as well as all income derived from manufacturing agreements with Kedrion and third-party sales of Haema and Biotest US. The Bio Supplies division accounted for €167.0 million, or 3.7%, of our total net revenue in 2018, and €104.2 million, or 4.3%, of our total net revenues in the six-month period ended June 30, 2019.

Others. Net revenue from Others primarily consists of revenue from the rendering of manufacturing services to third party companies.

Our Strengths

We believe we have a number of competitive strengths, including the following:

Global Company with a Diversified Revenue Base Worldwide

We are a leading plasma derivatives company with operations in over 100 countries through distributors and subsidiaries in 30 countries. We have an established presence in Europe and the United States, which are the two largest plasma derivatives sales regions, and we have a significant position in transfusion medicine with our NAT blood screening segment. For the year ended December 31, 2018, the United States and Canada accounted for 66.3% of our total net revenues while Europe accounted for 17.8% of our total net revenues (of which less than 6% was generated in Spain).

Certain sales regions, particularly in emerging markets, have experienced continuous growth, driven by enhanced socioeconomic conditions and more informed patients who are demanding better quality medical care, as well as increasing government healthcare spending on plasma derivative products. These emerging markets are expected to experience significant growth. Our presence and experience in Latin America, in countries such as Mexico, Colombia, Argentina, Chile and Brazil, where we have been marketing and selling products for over 20 years, has positioned us to benefit from this additional growth in both our Bioscience and Diagnostic divisions. In the Asia-Pacific region, we have established a presence through our subsidiaries and representative offices in Malaysia, China, Thailand, Singapore, Australia, Japan, India, Hong Kong, Taiwan and Indonesia. We have also opened a Middle Eastern representative office in Dubai.

We are a leading plasma derivatives producer globally, ranking in the top three largest producers in the industry in terms of total sales, along with Takeda and CSL Behring. We are the world's largest producer of A1PI, which is used for the treatment of A1PI deficiency related emphysema. Prolastin®/ Prolastin®-C is the leading A1PI product in the United States and Europe, where it is licensed in 15 countries. In Italy and Spain, we previously distributed Prolastin® using third parties. However, we began direct distribution of Prolastin in those two countries in 2013, and began conducting clinical trials in Europe in 2013 to obtain Prolastin®-C approval. We had an estimated 66% market share A1PI at the end of 2018. In September 2017, the FDA approved our liquid formulation of A1PI (Prolastin® -C Liquid) as a chronic augmentation and maintenance therapy to treat emphysema related to severe hereditary A1PI deficiency. In 2018, based on our internal estimates, we had a top three market position in other segments of the plasma derivatives industry, including the largest market share in IVIG (25% of the market), the largest market share in Factor VIII (17% of the market) and the second largest market share in Albumin (18% of the market). According to the latest available data, we also have a leading position in terms of plasma collection.

Source: MRB, secondary official data and Company estimates for 2018.

Market Leadership across Bioscience and Diagnostic Divisions

Our portfolio of IVIG and A1PI products includes Gamunex® IVIG, a ready-to-use liquid IVIG product launched in the United States and Canada in 2003. Gamunex® IVIG was the first IVIG product approved for CIDP in the United States and Canada, and through mutual recognition procedures, in 16 European

countries. Gamunex® IVIG can be administered subcutaneously or intravenously. We had an estimated 66% global market share for A1P1 at the end of 2018 and an estimated 85-90% market share of anti-rabies immunoglobulins in the United States as of December 2018. Alphanate®, Fahndi™ and Koate®, our Factor VIII/von Willebrand factor products, are used for both the treatment of hemophilia and von Willebrand disease. We had approximately 48% market share in the in the U.S. Factor VIII at the end of 2018.

Our albumin brands are sold globally, with an 18% market share at the end of 2018. In addition, we offer albumin products with reduced aluminum content that meet European regulatory requirements, making them more attractive to biotechnology companies and genetic laboratories, as well as to hospitals and physicians. Our portfolio also includes products for the treatment of tetanus, hepatitis B, Rh factor complications during childbirth, the prevention and treatment of thrombotic diseases, the prevention and control of bleeding in patients with hemophilia B and the prevention of hepatitis B reinfection of the graft in liver transplant patients.

In addition, we possess a fully vertically integrated diagnostic business model. This fully integrated Transfusion Diagnostics value chain, gives us a dominant market position and a full product portfolio in the blood screening market. Our diagnostic portfolio encompasses innovative, market leading collecting, testing for infectious diseases, typing diagnosis and transfusion transfusion medicine technology, instrumentation and equipment for Nucleic Acid Testing (NAT) and Serology blood screening

We believe that we have a significant market share of sales in NAT blood screening solutions. In addition, we have increased our sales of automated immunohematology systems and reagents to hospital transfusion and blood centers in several markets. We also continue to grow our portfolio of clinical and diagnostic products in select areas, including autoimmunity and hemostasis, and have agreements to extend the number of antigens we manufacture for use in clinical and blood bank diagnostic tests.

Large and Growing Market Outlook Supported by Strong Fundamentals

According to the MRB, the global market for biological medicines derived from human blood plasma was worth an estimated €20.6 billion in 2017, representing a 4.1% increase from 2016 and a compound annual growth rate of 10.2% from 2009 to 2017. In 2017, IVIG was the leading product in the market, accounting for 40.7% of sales in the global plasma derivatives market (excluding recombinant proteins). In recent years, most market participants have been operating at close to full capacity and, according to the MRB and our internal estimates, demand growth for plasma derivatives products is expected to continue.

The plasma derivatives sector has experienced sustained growth over the past 20 years. Several factors, including historic consolidation and vertical integration, have contributed, and are expected to continue to contribute, to the growth of this sector, including limited supply of raw materials, a growing demand coming from developed countries as well as emerging markets improving access to healthcare, new indications and an increasing awareness and improved diagnoses among physicians of the conditions that plasma derivative products help treat.

Fully Integrated Business Model Across the Entire Transfusion Value Chain

We are a vertically integrated global producer of plasma derivatives. Our activities include sourcing raw material, manufacturing various plasma derivatives products and selling and distributing the final products to healthcare providers.

Through acquisitions and openings of new plasma collection centers, we have expanded our plasma collection network to 293 centers in the United States and Europe as of June 30, 2019. Our acquisitions, including, among others, the 2011 acquisition of 67 plasma collection centers from Talecris and the 2018 acquisitions of Haema AG and Biotest US, have given us reliable access to U.S.-sourced plasma. In 2016, we purchased equity interests in the IBBI Group, including a 49.19% equity interest in IBBI, a 48.97% equity interest in Bio Blood and a 48.90% equity interest in PBS. In April 2019, we purchased the remaining 50.81% of IBBI, one of the main private and independent plasma suppliers in the United States. Following this transaction, we added 36 FDA-licensed centers (26 plasma centers and 10 whole blood donation centers). In 2018, we also obtained the rights to all plasma collected at an additional 24 plasma centers in the United States from Biotest US and 35 plasma centers in Germany from Haema.

We have state of the art plasma derivatives manufacturing facilities that are highly safe and efficient and that have EMA certifications and FDA licenses. Our key plasma fractionation plants are:

- **Parets del Vallès, near Barcelona, Spain**: fractionation capacity of 5.0 million liters per year and features a unique design that separates the maintenance area from the clean areas required for the fractionation and purification procedures. This design, which was developed by us internally, minimizes the risk of contamination and reduces maintenance costs. Our currently licensed production processes for IVIG and albumin have been approved by the FDA as have the use of several intermediate pastes created as raw material.
- **Clayton (North Carolina)**: fractionation capacity of 7.4 million liters per year and one of the world's largest fully integrated facilities for plasma-derived therapies, including plasma receiving, fractionation, purification, filling/freeze drying and packaging capabilities, as well as freezer storage, testing laboratories and a cGMP pilot plant for clinical supply manufacture. We are currently working on a new fractionation plant in Clayton, which will add additional fractionation capacity of 6.0 million liters per year and we expect to be in operation in 2021.
- **Los Angeles (California):** fractionation capacity of approximately 2.4 million liters per year.

The substantial investment required into facilities protects us from new competitors entering the market as the industry requires substantial yearly capex investment in order to cope with growing demand and therefore cash flow generation is dependent on the cycle of investment. We are also increasing our purification capacity for IVIG, albumin and alpha 1.

We also believe that we are the only company providing integrated transfusion medicine solutions from donation to transfusion. Our portfolio provides us with market leading positions and full product offerings in blood screening markets. Through the acquisition from Hologic in 2017, we have enhanced our vertical integration and further promoted the development of new tests and screening routines for emerging viruses. The Hologic transaction is part of the consolidation and growth strategy envisaged for the Diagnostic division and has enabled us to continue strengthening our leadership position in transfusion medicine.

Clear Growth Strategy with Long-Term Growth supported by Global Expansion

We have a strong track record as an innovator in the industry. For example, we developed a unique fractionation design that reduces the risk of contamination and reduces maintenance costs while increasing the extraction of products per liter of plasma. We have also developed the first centrifugation unit for the automated cleaning of blood cells, In addition, we were one of the first fractionators to conduct double viral inactivation processes for Factor VIII and have designed and implemented a new process for the sterile filling of vials that reduces exposure to potential contaminants as compared to other existing processes. Further, we have developed a nanofiltration method of viral inactivation for our IVIG, AlPI, and ATIII products. As a result of our continuing investment in research and development, we believe that we are well positioned to continue as a leader in the plasma-derived therapies industry.

The Transfusion Medicine Business, formerly owned by Novartis and acquired by us in January 2014, continues to enjoy a successful history of product innovation and commercialization, and its employees possess specific expertise and core competencies in the development and manufacturing of NAT assays and blood screening systems and in the supply of antigens to immunoassay companies. The infrastructure, processes and expertise of its employees enabled it to develop a growing range of marketed products and also helped in the development of potential new products. For example, in 2012, the Transfusion Medicine Business launched the Procleix Panther System, a fully integrated and automated NAT system for blood and plasma screening, allowing small to medium sized laboratories to improve workflow and operating efficiency. The instruments are based on proprietary TMA technology, which is typically more sensitive and therefore less cumbersome than PCR technology used by our competitors. The higher sensitivity shown by this TMA technology plays a crucial role in the portion of the blood screening market collected for fractionation.

The NAT Donor Screening Unit is engaged in research, development, manufacturing and commercialization of assays and instruments based on NAT technology for transfusion and transplantation screening. NAT technology makes it possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety. Since the Hologic transaction, this business has continued to develop new tests and screening routines for emerging viruses, strengthening our leadership position in the transfusion medicine field.

Our continued focus on international expansion and acquisitions that generate operational synergies has been demonstrated by our numerous acquisitions, including:

- **Talecris (June 2011):** a U.S. based producer of plasma-derived protein therapies with an established presence in the United States and Canada.
- **Progenika (March 2013):** international expansion through a 60% equity interest in Progenika (as of July 2019 our participation reached 100%), a Spanish biotechnology firm headquartered in Bilbao, with operations in the United States, Europe and the Middle East.
- **Novartis Diagnostic Business (January 2014):** further reinforced our international operations, as it expanded our global portfolio of brands, patents and licenses and gained us the Emeryville facility and commercial offices in the United States, as well as additional commercial offices in Switzerland and Hong Kong.
- **Hologic's Share of its NAT Donor Screening Unit (January 2017):** acquired our former joint-business partner's NAT Donor Screening business, including a manufacturing facility in San Diego and development rights, product licenses and access to product manufacturers.
- **Agreement for acquisition of a 26.2% equity interest in Shanghai RAAS (March 2019):** subject to regulatory approval, pursuant to the agreement entered into in March 2019, Shanghai RAAS will become our exclusive distributor of plasma-derived products and transfusional diagnostic solutions in China. This acquisition reinforces our global expansion strategy and commercial presence in China and is expected to close in the fourth quarter of 2019.

We have also demonstrated our capabilities to integrate products and technologies within our portfolio, including the following:

- **Kiro Grifols**: We acquired 50% of the voting and economic interest in the Spanish technology company that develops, manufactures and sells machinery and equipment designed to automate or control critical hospital processes in September 2014 and an additional 40% in 2017.
- **Alkahest**: We acquired 47.58% of the equity of the California biopharmaceutical company founded by leading scientists at Stanford University that demonstrated factors in the blood of young animals were able to restore mental capabilities in old animals in March 2015.
- **IBBI**: We acquired a 49.19% equity interest in IBBI, a 48.97% equity interest in Bio Blood and a 48.90% equity interest in PBS, collectively, a group based in Memphis, Tennessee, that collects plasma for the plasma fractionation industry in April 2016. In April 2019, we purchased the remaining 50.81% equity interest in IBBI)
- **Access Biologicals**: We acquired a 49% interest in a company based in Vista, California, that collects and manufactures an extensive biological and product portfolio in January 2017.
- **Goetech**: We acquired a 51% interest in the U.S. technology firm, a company based in Denver, Colorado, that develops and distributes web and mobile based platforms of hospital pharmacies through the brand MedKeeper in January 2018.

Strong Business Model with Attractive Cash Flow Generation

Our leading scale, diversification, favorable market positioning and focus on operational efficiency have enabled us to achieve attractive historical financial performances. In the year ended December 31, 2018, we generated net revenues of €4,487 million from a global and balanced geographical footprint with €2,974.4 million, or 66.3%, coming from the United States and Canada, €800.3 million, or 17.8%, from the European Union and €712.0 million, or 15.9%, from the rest of the world. Our Published EBITDA margin has grown from 21% in 2011 to 27% for the twelve-month period ended June 30, 2019. In comparison to our peers, we believe that we are the most efficient player in terms of capex efficiency, which helps our ability to generate strong and consistent cash flow and has also enabled us to invest in our operations and pursue attractive growth opportunities.

Experienced and Committed Management Team

We have an experienced and committed management team with over 30 years of industry experience on average. In accordance with our succession plan, Víctor Grifols Roura, a grandson of our founder, resigned as Chief Executive Officer on January 1, 2017, staying on the board as non-executive Chairman. Effective

the same date, Raimon Grifols Roura and Victor Grifols Deu became the co-Chief Executive Officers of the Company. Ramón Riera, a Director and the former President of the Global Commercial Division, has been associated with Grifols and our predecessor for more than 40 years. The Vice President of Finance and CFO, Alfredo Arroyo, has been associated with Grifols for 12 years. The President of U.S. Operations, Gregory Gene Rich, has been in the industry for nearly 39 years.

Our experienced and long-serving management team has a demonstrated ability to anticipate trends and successfully grow the business both organically and via acquisitions, with a focus on sustainable long term profit generation.

Strong Reputation for Safety and Reliable Services

Our philosophy is that the health of the plasma donor and the patient are the paramount considerations. We strongly believe that our safety philosophy is consistent with the business objective of generating profit. We also believe that we have a strong reputation for safety in our markets, thus making our products particularly attractive to customers. Our vertically integrated business model allows us to assure the safety and quality of our plasma derivative products through the implementation of our safety standards throughout the value chain. We have never experienced a recall of any batch of our finished biological products due to a safety risk, although in 2018 we voluntarily withdrew three lots of product. The first case was due to an error in which the adverse consequences for patients were not included in the packaging components. The other two cases were due to a reported rate of adverse drug reactions higher than usual. We maintain rigorous safety standards that exceed those required by health authorities in Europe and the United States and actively invest in the continued improvement of our manufacturing facilities and plasma fractionation process. Measures include introducing innovative methods such as the Plasma Bottle Sampling™ system, which automatically prepares codes and labels test samples at the time of plasma donation. Additionally, we have developed a nanofiltration method of viral inactivation for our IVIG, A1PI and antithrombin III products which has further improved our health and safety standards.

We maintain standards consistent with other industry participants with regard to plasma safety, and are periodically certified by the Plasma Protein Therapeutics Association (PPTA) under the International Quality Plasma Program (IQPP) for plasma donation centers, and under the Quality Standards of Excellence, Assurance and Leadership Program (QSEAL) for fractionation plants. For example, source plasma inventory is held for not less than 60 days. Known as "inventory hold", this waiting period allows donors to return for a second donation. The results of the "hold sample" are verified against the new donation to reconfirm the absence of viruses and pathogens. We have also introduced innovative methods such as the PediGri™ On Line system, which provides full traceability of human plasma raw material throughout the plasma supply chain. This system allows the physician to track the origin of the fractionated product used on patients back to the source donor providing full traceability of plasmatic raw material throughout the plasma supply chain process. We believe we are the only player in the industry providing a tracking system for its products.

The manufacturing plants have been designed fulfilling the current GMP standards and applicable regulations for clean areas, and are designed to minimize clean areas as well as human intervention, with the objective of lowering the risk of contamination. The facilities are subject to a cleaning and sanitizing plan and to a corrective and preventive maintenance program. Periodically, we voluntarily shut down all of our manufacturing facilities to perform maintenance work, expansion projects and other capital investments. Our manufacturing facilities have never been shut down because of regulatory noncompliance while under our operation. We believe that our voluntary shutdown procedure lowers the risk of any mandatory shutdown.

As part of our commitment to quality, we provide ongoing training for our plasma professionals through the creation of the Grifols Academy (the "Academy"), which offers cutting edge training on the processes of plasma collection, handling, storage and testing. The Academy also provides a deeper understanding of human health, ethics and science as they relate to plasma collection and plasma products.

Furthermore, we require our management to adhere to a formal code of ethical conduct. By signing the formal code of ethical conduct, a manager commits to making our products the safest and most effective in the market. The code imposes an obligation on each manager to report any ethical concerns directly to the Board. Our high safety standards and reliability have helped us establish and maintain successful long term relationships with key customers and physicians worldwide. We believe that the strength of our reputation positions us favorably as we continue to expand our business.

Our Business Strategy

We believe that the breadth and quality of our products makes us one of the world's leading providers of plasma derivative products. Our objective is to consolidate and expand this leadership position by employing the following strategies:

Increase Collection of Source Plasma and Fractionation Capacity

United States plasma is the principal raw material for our plasma derivatives products and it can be used in plasma derivative products sold in most markets. Our plasma is obtained mainly from the United States through our network of 220 FDA licensed plasma collection centers in the United States as of December 31, 2018. We believe that a large network of plasma collection centers is the best approach to secure access to raw materials. Historically, to achieve this goal, we have strategically targeted and acquired collection centers, including 67 centers from our acquisition of Talecris in 2011. Since the acquisition of Talecris, our strategy has been to expand and relocate our existing centers in order to collect more plasma more efficiently. In June 2018, we completed the acquisition of Haema, a German based pharmaceutical company that owns 35 collection centers throughout Germany. In August 2018, we completed the acquisition of Biotest US, a U.S. based pharmaceutical company that owns 24 plasma collection centers. In December 2018, we sold our 100% stake in Haema and Biotest US to Scranton Enterprises B.V. This acquisition and subsequent sale allowed us to reinforce our financial structure and through our 30-year Plasma Supply Agreement in place with Haema and Biotest US, we continue to operate the companies' plasma centers. We intend to continue to focus on expanding our collection platform and relocating our existing centers and have previously announced that we plan to reach 325 approved plasma collection centers by 2023 globally.

We are undertaking an investment plan that involves among other investments, cumulative industrial capital investments to expand the manufacturing capacities of the Bioscience division of approximately €400 million from 2019 through 2020 as part of our €1.4 billion 2018-2022 capital expenditure plan. We are currently working on a new fractionation plant in Clayton with an incremental 6 million liters capacity per year, which we expect will be in operation in 2021. Under our capacity expansion program, we are currently undergoing an increase of our fractionation capacity from 14.8 million liters per year to 19 million liters per year by 2021.

Although the increase in collection of source plasma and fractionation capacity has put downward pressure on margins, the opening of new facilities is now materially complete and we now expect a positive impact on Published EBITDA margin moving forward.

Further Enhance Our Global Presence

Geographical diversification is a cornerstone to our strategy. We currently operate in over 100 countries through distributors and subsidiaries in 30 countries. The United States is the largest sales region in the world for plasma derivative products. For the year ended December 31, 2018, the United States and Canada accounted for 66.3% of our total net revenues.

Certain sales regions, particularly in emerging markets, continue to experience continuous growth, driven by enhanced socioeconomic conditions and more informed patients who are demanding better quality medical care, as well as increasing government healthcare spending on plasma derivative products. These emerging markets are expected to experience significant growth. Our presence and experience in Latin America, in countries such as Mexico, Colombia, Argentina, Chile and Brazil, where we have been marketing and selling products for over 20 years, has positioned us to benefit from this additional growth in both our Bioscience and Diagnostic divisions. In the Asia-Pacific region, we have established a presence through our subsidiaries and representative offices in Malaysia, China, Thailand, Singapore, Australia, Japan, India, Hong Kong, Taiwan and Indonesia. We have also opened a Middle Eastern representative office in Dubai.

Our continued focus on international expansion and acquisitions that generate operational synergies has been demonstrated by our prior acquisitions, including Talecris, Progenika, Novartis Diagnostics and Hologic's NAT Donor Screening Business. In March 2019, we entered into an agreement to acquire a 26.2% equity interest in Shanghai RAAS. Subject to regulatory approval, pursuant to the agreement, Shanghai RAAS will become our exclusive distributor of plasma-derived products and transfusional diagnostic solutions in China. This acquisition reinforces our global expansion strategy and commercial

presence in China. We will continue to selectively consider acquisitions that would further enhance our operations and complement our portfolio of products.

Continue Investment in Research and Development and Innovation

Research and development is a significant aspect of our business. Our efforts are focused on three key areas:

(i) discovering and developing new products

(ii) researching new applications for existing products and

(iii) improving our manufacturing processes to increase yields, safety and efficiency.

In recent years, we have increased our investment in research and development, both directly and through collaborations with our associated companies, such as Alkahest and GigaGen, among others. Our research and development teams are working to develop the possible use of albumin in treating Alzheimer's disease. We completed the AMBAR trial and published top-line results in 2018. The trial was approved by both Spanish Agency for Medicine and Health Products (Agencia Española del Medicamento y Productos Sanitarios) and the FDA. The AMBAR trial demonstrated a significant reduction in the progression of the disease in moderate Alzheimer's patients. A Phase II clinical trial was completed to evaluate the safety and pharmacokinetics of the liquid formulation of alpha 1 antitrypsin for patients with pulmonary emphysema caused by alpha 1 deficiency, and the license request was filed with the FDA in late 2016. In September 2017, the FDA approved our liquid formulation of A1PI (Prolastin®-C Liquid) as a chronic augmentation and maintenance therapy to treat emphysema related to severe hereditary A1PI deficiency. During 2016, the Grifols IVIG (Gamunex C) obtained FDA orphan drug status for Myasthenia Gravis. Currently, there are two ongoing trials in Phase II and III with IVIG for acute and maintenance treatment of Myasthenia Gravis. We received FDA approval for our 20% subcutaneous immunoglobin product, Xembify®, in July 2019 and are planning to launch it in the United States in the last quarter of 2019.

In June 2016, the FDA authorized blood screening for the Zika virus using NAT technology developed by us and Hologic, for use in the United States through the agency's study protocol for IND. Subsequently, in December 2016, we obtained European Conformity (CE Marking) for our Zika virus screening test.

In 2018, our research and development expenses reached €240.6 million. We had 985 scientists and support staff dedicated to research and development.

We believe there is significant growth potential from the extraction of additional proteins from blood plasma, with only approximately 20 of the more than 100 proteins in blood plasma currently capable of being successfully extracted. Our continued investment in R&D aims to unlock this upside for the benefit of our customers.

Expand Our Product Offerings and become a Leader in the Diagnostic Field

Our research and development team, whose activities are primarily concentrated on the Bioscience division, will continue to seek to develop new plasma derivative products as well as new applications for our existing plasma derivative products. We seek to leverage our plasma derivative product portfolio by offering diagnostic and hospital products developed by our research and development team or by premier healthcare companies with which we maintain distribution agreements. We believe that by increasing the number of products we offer, we can generate higher revenue, diversify our product base and facilitate our entry into new markets. In addition, we also believe that a one stop shopping approach that offers a broader range of complementary, high quality products is particularly attractive to our existing and potential customers.

The Hologic Transaction is part of the consolidation and growth strategy envisaged for the Diagnostic division and has enabled us to continue strengthening our leadership position in transfusion medicine. The Hologic Transaction further promoted the development of new tests and screening routines for emerging viruses.

In the last decade, we have successfully expanded our Diagnostics product portfolio globally and today we have a comprehensive line of reagents, instruments and technologies for immunohematology typing and blood transfusion. The Novartis acquisition contributed to the expansion of our immunohematology line into the United States.

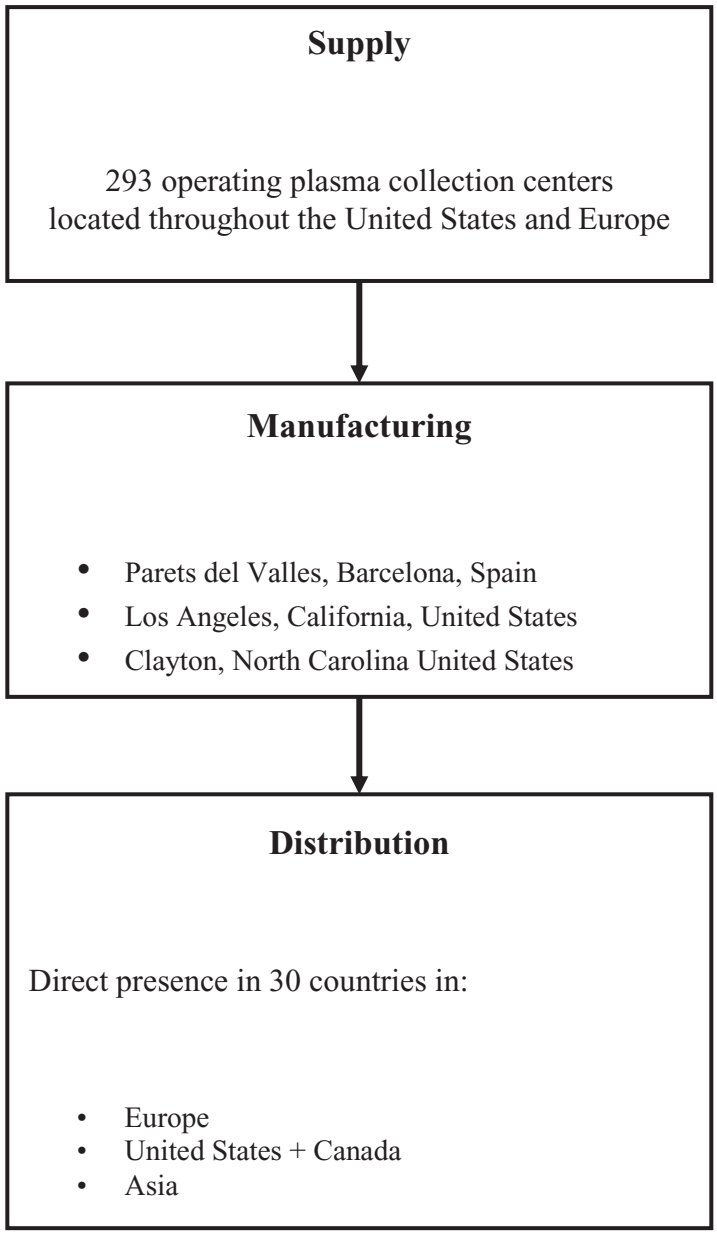
The Novartis acquisition also enabled us to offer a full range of products to the blood screening market, expanding our portfolio of diagnostic products for transfusion medicine and immunology, with the addition of the Novartis Diagnostic Business' market leading NAT technology, instrumentation and equipment for blood screening, specific software and reagents, as well as with manufacturing capabilities to supply antigens to immunoassay companies. The assets acquired included patents, brands, licenses and royalties, together with the production plant at Emeryville (California, United States) and commercial offices in United States, Switzerland and Hong Kong (for the Asia Pacific region) among others. The Novartis acquisition strengthened our Diagnostic division, particularly in the United States, with a market leading and specialized commercial organization and further diversified our business.

The Bioscience Division

The Bioscience division is responsible for the research and development, production and marketing of plasma derivative products. In 2018, the Bioscience division accounted for €3,517 million, or 78.4%, of total net revenue. In the six-month period ended June 30, 2019, the Bioscience division accounted for €1,920 million, or 79.2%, of total net revenue.

Operational Structure

The following chart illustrates the Bioscience division's operational structure:



From plasma donation to therapeutic application, there are four major steps in the industry value chain process:

- plasma collection
- transport and logistics
- manufacturing (fractionation and purification)
- marketing and distribution.

We are present at all levels of the value chain, from collection centers to distribution of final products. This vertical integration enables us to leverage our position at each stage to control the overall process, to benefit from lower prices and to introduce complementary products, such as those offered through the Hospital division and the Diagnostic division, to our customers.

Plasma Collection

Plasma is the key raw material used in the production of plasma-derived products. We have expanded our plasma collection network through a combination of organic growth by opening new plasma collection centers and acquisitions. We obtain our plasma primarily from the United States and Europe through 256 operating plasma collection centers and, to a much lesser extent, through agreements with third parties. In 2018, we also obtained the rights to all plasma collected at an additional 24 plasma centers in the United States and 35 plasma centers in Germany. In 2018, we obtained approximately 12 million liters of plasma (including specialty plasma required for the production of hyperimmunes and plasma acquired from third parties). As of June 30, 2019, we are the worldwide leader in plasma centers, with a network of 293 centers in the United States and Europe. We have previously announced that we plan to reach 325 approved plasma collection centers by 2023 globally.

We believe that our plasma requirements through 2019 will be met through plasma collected at our plasma collection centers and purchased from third-party suppliers pursuant to various plasma purchase agreements. As we source the majority of our plasma internally, we have been able to ensure the availability of plasma for our manufacturing needs, assure the quality of the plasma throughout our manufacturing process and improve control over our plasma costs and our margins.

We have implemented mechanisms to ensure that plasma donors meet the guidelines set forth by applicable regulations regarding, among other things, health, age and frequency of donations. Once the plasma donation is completed, as required by applicable U.S. and European regulations, we test every donation for pathogens such as HIV, hepatitis A, B and C, parvovirus B19 and syphilis. If we discover a unit of plasma that cannot be used in the fractionation process, we notify the donor and remove all plasma previously donated by such donor from our inventory.

Transport and Logistics

Once plasma has been collected, it is frozen at the collection center and sent to fractionation centers. One essential aspect of this process is the implementation of safety procedures to guarantee the quality and safety of the donated plasma. To ensure preservation of the proteins found in plasma, plasma must be kept at a temperature of -20 degrees Celsius (-4 degrees Fahrenheit). In accordance with European and U.S. requirements, we store our plasma at a temperature of -30 degrees Celsius (-22 degrees Fahrenheit). During transportation, plasma is kept at a temperature of at least -20 degrees Celsius. Our frozen plasma is transported by one of two transport companies, which are the same used throughout the industry.

Fractionation and Purification

Once plasma has been obtained, it may be used for plasma transfusions. It may also be frozen (as fresh frozen plasma) and manufactured into plasma derivatives through the fractionation process. The fractionation process consists of the separation of specific proteins through temperature and pH changes, as well as the use of filtration and centrifugation techniques. This process also includes a phase of introducing various viral inactivation procedures. Fractionation occurs in tanks at near freezing temperatures to maintain the integrity of the proteins. All known plasma derivative products can be fractionated from the same batch of plasma. As a result, the development of a new or higher yield plasma derivative product would likely generate incremental sales without increasing the requirement for additional plasma.

We currently operate three Bioscience manufacturing facilities in the United States and Spain. Our plasma derivative products are manufactured at our Clayton, Los Angeles and Parets facilities, which have a combined fractionation capacity of approximately 14.8 million liters per year. Our Clayton facility is one of the world's largest integrated protein manufacturing sites, including fractionation, purification and aseptic filling and finishing of plasma derived proteins.

The Clayton, Los Angeles and Parets facilities are equipped and licensed to produce certain plasma derivative products for the United States, European and other markets. For example, we produce our Flebogamma® DIF and Gamunex® IVIG products for all of our markets at the Clayton, Los Angeles and Parets facilities.

We optimize utilization of our fractionation capacity by obtaining FDA and EMA licenses, and completing further requirements, that allow us to purify at any of our other facilities intermediate products that are produced at one of our facilities. We have obtained the following FDA licenses, among others:

- to purify at our Clayton facility the Fraction II+III (an intermediate product) made at both our Los Angeles and Parets facilities to make Gamunex®;
- to purify at our Los Angeles facility the Fraction II+III obtained at that facility to make Gamunex® 10%;
- to use Fraction V obtained at our Clayton facility to produce albumin at our Los Angeles facility;
- to use Fraction V obtained at our new fractionation facility at Clayton to produce Albutein® in our Los Angeles facility;
- to use Fraction IV-1 obtained at our Los Angeles facility to produce Prolastina®, an A1PI we market in Spain, at our Clayton facility;
- to use Fraction IV-1 obtained at our Clayton facility to produce Prolastin® at our Parets facility;
- to use Fraction IV-1 obtained at our Parets facility to produce Prolastin® at our Parets facility;
- to use the same method currently in place in our Parets facility to produce Alphanate® in our Los Angeles facility;
- to use paste from the new fractionation facility at Clayton to produce Gamunex® and Prolastin®;
- to produce nano-filtered Gamunex® and the 40 gram vial presentation; and
- to use Cryoprecipitate obtained at our Clayton Facility to produce Alphanate® at our Los Angeles facility.

We are continuing our efforts to obtain additional FDA licenses of this nature. The flexibility provided through such licenses allows us to increase production efficiency and to better address changes in demand between the United States, the European Union and other world markets.

Safety

We have never experienced a recall of any batch of our finished biological products due to a safety risk, although in 2018 we voluntarily withdrew three lots of product. The first case was due to an error in which the adverse consequences for patients were not included in the packaging components. The other two cases were due to a reported rate of adverse drug reactions higher than usual. Our philosophy is that the health of the plasma donor and the patient are the paramount considerations. We strongly believe that our safety philosophy is consistent with the business objective of generating profit. We also believe that we have a strong reputation for safety in our markets, thus making our products particularly attractive to customers. Our vertically integrated business model allows us to assure the safety and quality of our plasma derivative products through the implementation of our safety standards.

The plasma collection, fractionation and purification process is long, complex and highly regulated. We have adopted and maintain rigorous safety standards that we believe exceed those required by health authorities in Europe and the United States. We are periodically inspected and certified for Good Manufacturing Practices (GMP) by competent health authorities, such as European authorities, the FDA, and other relevant government authorities of other countries where our products are marketed.

We maintain standards consistent with other industry participants with regard to plasma safety, and are periodically certified by the Plasma Protein Therapeutics Association (PPTA) under the International

Quality Plasma Program (IQPP) for plasma donation centers, and under the Quality Standards of Excellence, Assurance and Leadership Program (QSEAL) for fractionation plants. For example, source plasma inventory is held for not less than 60 days after donation, to allow for retrieval and destruction of plasma units if the donor is disqualified during this period (after seroconversion or due to high-risk behavior or international travel). We have also introduced innovative methods such as the Plasma Bottle Sampling™ system, which automatically prepares, codes and labels test samples at the time of plasma donation, and the PediGri™ On Line system, which provides full traceability of human plasma raw material throughout the plasma supply chain.

The manufacturing plants have been designed fulfilling the current GMP standards and applicable regulations for clean areas, and are designed to minimize clean areas as well as human intervention, with the objective of lowering the risk of contamination. The facilities are subject to a cleaning and sanitizing plan and to a corrective and preventive maintenance program. Periodically, we voluntarily shut down all of our manufacturing facilities to perform maintenance work, expansion projects and other capital investments. Our manufacturing facilities have never been shut down because of regulatory noncompliance while under our operation. We believe that our voluntary shutdown procedure lowers the risk of any mandatory shutdown.

All of our plasma derived products are manufactured strictly following validated and approved procedures, and in accordance with the corresponding marketing authorization. Also, each manufacturing process includes at least one validated specific virus inactivation or removal step as a precautionary measure to avoid improbable virus contamination.

Since our products are proteins they cannot be terminally sterilized, and therefore are sterilized by filtration before being aseptically filled in their final container. We have patented the Grifols Sterile Filling (GSF) system which minimizes the risk of microbial or particulate contamination during the aseptic filling process. During this process, sterilized containers are filled with the product under Grade A laminar air flow. The partially closed containers (vial with stopper and protector) are sterilized prior to filling. The container closure unit remains partially closed until the moment of filling, after which it is immediately sealed thus reducing the risk of contamination by reducing the product and container exposure to the controlled environment. The filling process is recorded which enables us to identify the cause of, and rectify more easily, any related problem. These records are maintained according to our data retention policy.

Once aseptically filled, each unit of product is laser-marked with the objective of individually identifying each container and preventing and detecting counterfeits. This allows us to protect the integrity of our manufacturing process.

After plasma derivatives are manufactured, every unit of each lot is visually inspected in order to detect the presence of foreign particles or other imperfections in the container closure system. Each lot is also tested during production and at the end of the manufacturing process according to the licensed specifications, marketing authorization and corresponding Pharmacopoeia monographs. All processes are overseen by our quality systems that are in place with the objective of ensuring that products are marketed with the appropriate quality, purity, potency and safety.

Finally, once the product is marketed, our Pharmacovigilance system allows us to control all potential adverse reactions resulting from the administration of our products, thus ensuring the safety of our products globally around the world.

We continually invest in the improvement of our manufacturing facilities and plasma fractionation process, as well as in other related systems, in order to ensure the quality and safety of our products.

Distribution Process

With each batch of plasma derivatives, we deliver electronic information regarding the origin, characteristics and controls of each of the units of plasma that we used in the preparation of the batch to our customers. This feature, called the PediGri™ On Line system, allows for healthcare users of our products and regulatory authorities to have immediate and easy access to this information, tangible proof of the full traceability of our products. We have had this system in place since 1996, and we believe we are the only fractionator that provides this feature to customers.

We have our own sales and distribution networks covering substantially all of our markets, staffed with highly trained personnel. A majority of our sales in 2018 were made through our own distribution network,

which is experienced in the proper handling of our products. This network provides for greater safety because it allows us to track our products and react quickly in the case of a potential product recall. In countries where we do not have our own distribution network, we use carefully selected distributors who follow all of our safety standards.

Bioscience Products and Services

Collected plasma, whether source or recovered, is fractionated into different component proteins. We fractionate and purify a broad range of plasma derivative products that improve patient care.

Our principal plasma derivative products are IVIG, A1PI, Factor VIII and albumin, each sold under various brand names, and their respective applications are as follows:

Product Description	Main Applications
Gamunex®/Gamunex® -C. Immune Globulin Injection (Human), 10% Caprylate/ Chomatography Purified.	IVIG is used for the treatment of primary and secondary immunological deficiencies, autoimmune conditions including immune-mediated ITP, Guillain Barré syndrome, Kawasaki disease, allogenic bone marrow transplants and chronic inflammatory demyelinating polyneuropathy (CIDP) (Gamunex®/Gamunex®-C only).
Flebogamma® 5%. Immune Globulin Intravenous (Human). *Flebogamma® 5% and 10% DIF.* Immune Globulin Intravenous (Human).	IVIG is used for the treatment of primary and secondary immunological deficiencies, autoimmune conditions including immune-mediated ITP, Guillain-Barré syndrome, Kawasaki disease, allogeneic bone marrow transplants and chronic inflammatory demyelinating polyneuropathy (CIDP) (Gamunex®/Gamunex®-C only).
HyperRAB®	Anti-rabies immunoglobulin indicated for postexposure prophylaxis, along with rabies vaccine, for all persons suspected of exposure to rabies who have not been previously vaccinated with rabies vaccine.
Prolastin®/Prolastin®-C(only in the United States)/ Prolastina®/Pulmolast®. Alpha 1-Proteinase Inhibitor (Human).	Used to treat adults with clinical evidence of emphysema due to severe hereditary A1PI deficiency (alpha-1 antitrypsin deficiency).
Fahndi™ and Alphanate®. Antihemophilic Factor/ von Willebrand Factor Complex (Human).	Used for the prevention and control of bleeding in Factor VIII deficiency (hemophilia A), and indication for von Willebrand disease (in the United States, for Alphanate® only).
Koate®-DVI. Antihemophilic Factor (Human).	Used for the prevention and control of bleeding in Factor VIII deficiency (hemophilia A).
Albutein®/Human Albumin Grifols®/Albutein®/ Plasbumin®. Albumin (Human) 5%, 20% and 25%.	Used to re-establish and maintain circulation volume in the treatment of hypovolemia (i.e., traumatic or hemorrhagic shock and severe burns) and to treat complications related to cirrhosis.

Our acquisition of Talecris expanded our portfolio of IVIG, A1PI, Factor VIII, albumin, and other plasma derivative products.

Gamunex® IVIG, which was launched in the United States and Canada in 2003 as a ready-to-use liquid IVIG product, is one of the leading products in the IVIG segment. We believe Gamunex® IVIG is one of the premium products in its category since its launch due to a comprehensive set of differentiated product characteristics. We believe we had an estimated 35% market share in the United States for IVIG as of December 2018.

HyperRAB® is the world's leading human anti-rabies immunoglobulin indicated for postexposure prophylaxis, along with rabies vaccine, for all persons suspected of exposure to rabies who have not been previously vaccinated with rabies vaccine. A 300 IU/ml formulation of HyperRAB® is now available in the United States, having received FDA approval in February 2018. HyperRAB® only human rabies immunoglobulin (HRIG) has a higher-potency formulation, offering potentially fewer injections in administration of each dose. Grifols has an estimated 85-90% market share of anti-rabies immunoglobulins in the United States as of December 2018.

In addition, we are the world's largest producer of A1PI, an augmentation therapy of emphysema related to severe hereditary A1PI deficiency. It is licensed in 29 countries worldwide. Prolastin®/ Prolastin® C A1PI is the leading A1PI product in the United States and Europe, where it is licensed in 15 countries. In Italy and Spain, we previously distributed Prolastin® using third parties. We began direct distribution of Prolastin® in those two countries in 2013, and began conducting clinical trials in Europe in 2013 to obtain Prolastin®-C approval there.

We had an estimated 66% global market share for A1PI at the end of 2018. In September 2017, the FDA approved our liquid formulation of A1PI (Prolastin®-C Liquid) as a chronic augmentation and maintenance therapy to treat emphysema related to severe hereditary A1PI deficiency.

Koate®-DVI was first approved in the United States in 1999 for hemophilia A treatment. Together with Fanhdi and Alphanate, Grifols had an estimated 17% market share globally in the FVIII. Grifols albumin brands are sold globally, with an 18% market share. In addition, our albumin products meet U.S. and European requirements, making them attractive to biotechnology companies and genetic labs, as well as hospitals and physicians.

In addition to the products described above, we also produce intramuscular (hyperimmune) immunoglobulins, which are used for the prevention and treatment of tetanus, prevention and treatment of hepatitis B and Rh factor complications during birth; Anbinex® and Thrombate® III, which are used in the prevention and treatment of thromboembolic complications in patients with antithrombin deficiency; AlphaNine® and Factor IX Grifols®, which are used in the prevention and control of bleeding in patients with hemophilia B; and Niuliva® and Igantibe®, which are used after liver transplants to prevent hepatitis B reinfection of the graft. In 2017, we obtained FDA and EMA approval for a biological sealant composed of fibrinogen and human thrombin used in surgical operations to expedite the healing process.

To sell plasma derivative products, we must first register the products with the relevant authorities of the jurisdictions where the products are to be marketed and sold. To comply with the regulatory requirements in a given jurisdiction, we have a core team in Spain and the United States that prepares, files and coordinates the registration process with the technical personnel at the subsidiary assigned to that jurisdiction. We have 694 hemoderivative product licenses registered in 93 countries throughout Europe, the United States, Latin America, Asia and the rest of the world. Our most significant government-issued licenses for plasma derivative products are:

- *Gamunex®/Gamunex®-C/Flebogamma® DIF/Flebogamma® Immunoglobulin.* We have 111 licenses for the marketing and sale of one or more of these immunoglobulin products.
- *Fanhdi™/Alphanate®/Koate®- DVI Factor VIII.* We have 99 licenses for the marketing and sale of one or more of these Factor VIII products.
- *Albutein®/Human Albumin Grifols ®/Plasbumin®.* We have 201 licenses for the marketing and sale of one or more of these albumin products in its various concentrations.
- *Prolastin®/Trypsone® A1PI.* We have 35 licenses for the marketing and sale of one or both of these A1PI products.

Pursuant to the FTC's consent order in connection with our acquisition of Talecris in 2011, we have granted Kedrion the exclusive license to sell Koate® DVI in the United States.

In addition to the sale of the products described above, we have entered into a series of arrangements with many Spanish transfusion organizations to fractionate recovered plasma (plasma separated from blood obtained from a blood donation) from such organizations and manufacture plasma derivatives under our own brand name for use by hospitals. We charge the transfusion centers for the fractionation and manufacturing service. We also have contract manufacturing agreements with Italian, Czech and Slovak organizations. We also provide virus photo-inactivation of transfusion plasma to hospitals and clinics in

Spain. The plasma is inactivated at our manufacturing facilities and then sent back to the clinic or hospital at which it was collected, where it is used for transfusions.

The Diagnostic Division

The Diagnostic division focuses on researching, developing, manufacturing and marketing in vitro diagnostics products, including analytical instruments, reagents, software and associated products for use in diagnostic clinical and blood bank laboratories. We believe that we have a significant market share of sales in NAT blood screening solutions. In addition, we have increased our sales of automated immunohematology systems and reagents to hospital transfusion and blood centers in several markets. We also continue to grow our portfolio of clinical and diagnostic products in select areas, including autoimmunity and hemostasis, and have agreements to extend the number of antigens we manufacture for use in clinical and blood bank diagnostic tests. The Diagnostic division accounted for €702.3 million, or 15.6% of total net revenue in 2018 and €348.7 million, or 14.4% of our total revenue in the six-month period ended June 30, 2019. Our principal diagnostic products are as follows:

Product Description	Main Applications
Transfusion Medicine:	
Procleix® Tigris®/Procleix® Panther® systems. Automated NAT blood screening systems, assays and software.	Used to detect infectious viruses in donated blood and plasma including: HIV (Types 1 & 2); Hepatitis A, Hepatitis B, Hepatitis C and Hepatitis E; parvovirus B19; West Nile Virus; Dengue Virus; Zika and Babesia.
WADiana®/Erytra® analyzers. Automated immunohematology analyzers that use gel agglutination technology to enable automatic processing of DG Gel® blood determination cards.	Used to perform routine pre-transfusion blood typing, antibody screening, antibody identification and cross-match tests.
Antigens. Critical component of certain infectious disease tests.	Used in the manufacture of clinical diagnostic and blood donor screening immunoassays.
Leucored and standard blood bags. Blood bags configured according to all blood bank separation protocols. Leucored blood bags incorporate an in-line filtration system.	Used for collection and transfusion of blood.
Clinical and Specialty Diagnostics:	
Triturus® analyzers. Open and fully automated analyzer for ELISA (enzyme-linked immunoabsorbent assay), tests with multi-test/ multi-batch capability.	Automates the enzyme immunoassay testing in microtiter plate format and the processing of several batches of samples simultaneously.
Q-Smart™, Q-Next™, and Q-Expert™ analyzers. Fully automated hemostasis analyzers that use reagents to measure blood coagulation levels.	Used to diagnose and measure blood coagulation status of patients with blood coagulation-related and hemorrhagic disorders.
Coagulation reagents, instrumentation and software.	Used to establish the coagulation status of patients and to handle the corresponding results.
Promonitor. Highly specific ELISA kits for quantification of serum drug levels and anti-drug antibodies of various biological drugs.	Used to measure quantity of drug and antibodies for a number of biological drugs commonly used in the treatment of various inflammatory diseases.

We assemble the majority of our instrument analyzers at our Parets facility. We manufacture antigens at our Emeryville facility, oligos and other critical components of the transcription-mediated amplified NAT kits for blood and plasma infectious diseases screening at our San Diego facility and our blood bags at our facility located in Las Torres de Cotillas, Murcia, Spain, or the Murcia facility, which has an estimated capacity of nine million blood bags per year.

The production, marketing and sale of many of our Diagnostic division products are subject to the prior registration of such products with the relevant authorities of the applicable jurisdictions. We have over

2,496 diagnostic product licenses registered in 70 countries in Europe, the United States, Canada, Latin America, Africa and Asia.

In addition to the products noted above, we offer our customers products developed in collaboration with, or manufactured by, third-parties that we believe complement our product lines.

The Diagnostic division distributes products in Europe, North America, Asia-Pacific, the Middle East, Latin America and Africa.

In January 2014, we acquired from Novartis a complete line of products and systems to perform blood donor screening molecular tests aimed at detecting the pathogenic agents of transfusion-related infectious diseases such as HIV, hepatitis B, hepatitis C and West Nile Virus. The Novartis Diagnostic Business has been integrated in our current Diagnostic division, resulting in a significant expansion of our transfusion medicine product portfolio. More recently, in January 2017, we completed the Hologic acquisition. Prior to the Hologic transaction, we and Hologic jointly operated this business, with Hologic responsible for research and development and manufacturing of the Procleix® blood screening products and Grifols responsible for their commercialization worldwide. Following the acquisition, we now control the research and development processes as well as the manufacturing of the reagents. We believe the Procleix® NAT solutions that we added to our portfolio in the Hologic transaction, which we were already commercializing following the Novartis acquisition, continue to lead the market, and are used to screen more blood and plasma donations worldwide each year than any other NAT system. The Procleix® products are designed to directly detect the genetic material of a virus using a technique called transcription-mediated amplification (TMA).

Transfusion Medicine

Grifols has a leadership position in transfusion medicine, with a broad portfolio of products that range from blood collection, blood and plasma testing to blood typing and transfusion. Our growth strategy in transfusion medicine has been strengthened by the January 2014 acquisition of the transfusion medicine and immunology diagnostic unit of Novartis and the Hologic Transaction. We focus primarily on meeting changing market needs with new and enhanced products for our Procleix NAT blood screening portfolio and on expanding sales of our immunohematology products in key markets (WADiana®, Erytra® and Erytra-Eflexis® analyzers and related DG Gel® blood determination cards).

We continue to focus on obtaining FDA and other regulatory approvals to expand our portfolio of NAT products. In 2015, a European Conformity, or CE mark, was granted for the NAT test that detects both parvovirus B19 and hepatitis A virus (Procleix® Parvo/HAV) in human plasma on the Procleix® Panther platform, enabling Grifols to increase the number of tests available for this platform and to expand its portfolio of products designed to meet the specific needs of the plasma industry. In 2016, the Procleix® Tigris system underwent a series of significant software and hardware improvements to better address evolving market needs, including more functional and streamlined software and increased storage holding for key consumables. Clinical trials to support U.S. registration of the Procleix Ultrio Elite Assay (HIV and hepatitis B and C) and Procleix WNV Assay (West Nile Virus) on the Procleix Panther system were completed in 2016 and the corresponding Biologics License Applications (BLA) were subsequently submitted for review to the FDA. The BLA approval for both assays and the Procleix Panther system was received during the second quarter of 2018. A new version of the Procleix® Xpress (v.3.0) pipette was submitted for FDA approval during 2017 and approved during the first quarter of 2018.

In 2016, we began working on an Investigational Use Only (IUO) assay to accommodate requests to test blood in areas potentially affected by the Zika virus. In June 2016, the first samples were tested using Grifols Procleix® Zika virus assay on a Procleix® Panther® system under an Investigational new drug (IND) protocol. In August 2016, the FDA issued non-binding recommendations that require NAT screening of all individual donations in the United States and its territories. We provide reagents, instruments and services to all of our U.S. customers to allow the screening of more than 85% of the U.S. blood supply. The record-time development of the Procleix Zika virus assay reinforces our commitment to blood safety worldwide. In 2017, we obtained CE marking for the Zika virus assay. In July 2018, the assay obtained FDA approval. Shortly after that, the FDA issued guidance mandating testing of all blood in the United States for Zika virus and allowing for pool testing.

In 2017, we received FDA approval under an Investigational New Drug protocol for a new assay to detect babesia, a tick-borne disease. The assay is designed to be used for routine screening by U.S. blood banks

on the Procleix® Panther® system. The assay was subsequently submitted for review to the FDA, and it was finally approved in February 2019.

As part of our strategy of geographic expansion and as a leader in this market segment, we continue to consider requests to include NAT screening for blood and plasma donations in countries as they develop their health systems. In this regard, it is important to highlight several new contracts in the Middle East. In 2015, we won a tender in Saudi Arabia to supply the Saudi Arabian National Guard, followed by a contract in 2016 to supply transfusion services to the Saudi Ministry of Health (MoH) and the majority of the member countries of the Cooperation Council for the Arab States of the Gulf (CCASG), establishing us as the leading provider of NAT technology in the region. During 2016, we conducted our first sales in Oman and Kuwait. We opened a new training center in Dubai in 2016 to further support our growth in the region. The center offers single and multi-day training courses for laboratory technicians, engineers and specialists in our broad portfolio of products in transfusion medicine and clinical diagnostic.

We continue to experience strong sales of our DG Gel® blood typing products. In December 2016, we obtained CE marking for Erytra Eflexis®, a fully automated, mid-size analyzer that performs pretransfusion compatibility testing using DG Gel® technology that was launched in June 2017. The instrument was later approved by the FDA in December 2018. It has a smart and compact design, offering intuitive operation that has expanded our product portfolio, which already includes the WADiana® and Erytra® analyzers and DG Gel® cards. In the United States, our blood typing solutions have experienced solid growth. We have expanded commercialization efforts and will continue to promote this area in light of its high growth potential.

In 2015, we opened the "Grifols Immunohematology Center" in our laboratories in San Marcos, Texas. The Grifols Immunohematology Center provides reference lab testing, consulting and education services to transfusion medicine professionals. In 2016, we expanded the number of tests offered by the center to include simple and complex serological tests.

In several countries, we distribute the BLOODchip® blood group genotyping tests manufactured by Progenika, a Grifols company. In 2017, Progenika obtained CE marking for the ID RHD XT Diagnostic Kit, a new molecular diagnostic kit that detects the most relevant RhD variations, and obtained FDA approval for a new genetic test to detect alpha-1 antitrypsin deficiency. This test has had CE mark approval since December 2016 and received FDA approval in October 2018.

In select markets, we are working to expand the availability of our blood collection bags and systems, as well as our Gricode™ transfusion component tracing systems. To strengthen our position in Brazil, we finished construction of a blood bag manufacturing plant in Campo Largo (Paraná) in November 2017, where we commenced operations in 2018. The plant has an initial production capacity of two million units, expandable to four million units.

As part of the Novartis acquisition, we also acquired a product line of high quality antigens, which are critical components of clinical diagnostic and blood screening immunoassay tests sold worldwide, which are produced through a joint business with Ortho Clinical Diagnostic.

As part of this joint business with Ortho Clinical Diagnostic, in 2015, we signed a new contract with Abbott Laboratories for the supply of high quality antigens used in the manufacture of immunoassay diagnostics. This contract, with a total value of approximately $700 million, extended the supply of antigens until 2026, ensuring higher levels of recurring income in this area. In 2017, we extended our existing agreement with OraSure Technologies by five years, reinforcing our position as a flexible provider of antigens. In 2016, we obtained CE mark approval for the VITROS® HIV Combo test, developed by Grifols and Ortho Clinical Diagnostics for the early detection of HIV infection. This is an important milestone in the joint business between the two companies, in which we are responsible for manufacturing the antigens for the test. The test received approval from the FDA in October 2018 to be used on Ortho's VITROS® ECi/EciQ. The test was previously approved for use on Ortho's VITROS® 5600 Integrated System and Ortho's VITROS® 3600 Immunodiagnostic System.

Clinical and Specialty Diagnostics

Our Q-Smart™, Q-Next™, Q-Expert™ and Triturus® analyzers remain key product lines in the clinical and specialty diagnostics product line. In 2015, the Q-Smart™ analyzer (a mechanism for laboratories to automate and standardize hemostasis tests) was commercially launched in Latin America. The FDA is currently evaluating several products in our hemostasis line in 2018, including different Q product line analyzers. In 2017, we strengthened our hemostasis line with an agreement with Beckman Coulter, a global

supplier of diagnostic solutions. The exclusive, long-term agreement includes the worldwide distribution of our hemostasis instruments, reagents and consumables.

We also continue to offer a broad portfolio of hemostasis reagents in this line, including DG™-Chrom PC, a proprietary chromogenic kit for Protein C, and DG™-TT L human reagent, a liquid human thrombin for determining thrombin time.

Also within Clinical and Specialty Diagnostics, in 2015, Progenika Biopharma obtained CE marking for its first genetic diagnosis test for Familial Hypercholesterolemia (FH) using next generation sequencing technology (NGS). The division continues its efforts to broaden the Promonitor® line, used to monitor biologic drugs as sales continue in Chile, select European Union countries and Australia. The Promonitor® product line includes an ELISA (enzyme-linked immunoabsorbent assay) device line also developed by Progenika to monitor patients being treated with biological medicines for rheumatoid arthritis and other chronic inflammatory diseases. In 2015, CE marking was granted for two new references of tests in the Promonitor family that enable treatment with the biological product golimumab. In 2016, we obtained CE marking for several new reference tests in the Promonitor family of products, to permit the use of a single dilution to measure quantity of drug and antibodies for a number of biological drugs, commonly used in the treatment of various inflammatory diseases, such as rheumatoid arthritis and ulcerative colitis. In 2017 the division launched the PromonitorQuick®, a point-of-care diagnostic kit that detects anti-infliximab antibodies, antibodies that appear in patients with chronic inflammatory diseases who are treated with biological drugs.

We also continue to distribute our Triturus® analyzer, an open and fully automated analyzer for ELISA tests with multi-test/multi-batch capability. As an open system, it can be used for the automatization of our autoimmunity and biological drug monitoring product lines and other products in our portfolio for which we are distributors.

In 2015, we signed an exclusive agreement for distribution of AESKU Diagnostics' autoimmunity diagnostic products in the United States and Mexico. We also have various distribution agreements with AESKU in Chile, Italy, Portugal, Spain and the United Kingdom. In 2016, AESKU obtained FDA approval for Helios, the only fully automated platform capable of performing all immunofluorescence pipetting and reading steps in the United States, which strengthened our portfolio of products in the country. During 2018, AESKU obtained FDA approval of two additional assays for Helios, Antineutropil cytoplasmatic antibodies and nuclear Deoxyribonucleic acid. These products further strengthen the portfolio of IFA products offered in the United States.

We continue to sell the Intercept Blood System®, developed by Cerus, to inactivate pathogens in blood platelets and plasma in Spain and Mexico.

The Hospital Division

The Hospital division provides services and manufactures products used by hospitals, blood banks, plasma collection centers and other healthcare systems. These products include parenteral solutions, robotics and software. It also includes products that we do not manufacture but that we market as supplementary to the products that we do manufacture. The Hospital division accounted for €119.5 million, or 2.7%, of our total net revenue in 2018 and €63.4 million, or 2.6% of our total revenue in the six-month period ended June 30, 2019.

Hospital logistics and IV tools segments are also strategic areas for the Hospital division. With IV tools, we are the leaders in bringing GMP procedures and product solutions to the hospital pharmacy, increasing the safety of their compounding needs. With the hardware and software solutions offered by the Hospital logistics area, we are the market leader in Spain and Latin America in terms of offering solutions to manage the flow of medications in hospitals. At the beginning of 2018, we reinforced the division by acquiring the U.S. technology firm MedKeeper, which develops and markets mobile and web-based technology solutions for the management of hospital pharmacies. The acquisition complements our Pharmatech line and enhances our presence in the U.S. market.

IV Therapy is also a key segment of the division where we manufacture and distribute directly or through third parties products such as parenteral solutions and enteral nutritional products, which are mainly sold in Spain and Portugal. We believe we are the leader in the Spanish intravenous therapy segment in intravenous solutions, with a 31% market share according to our internal records, and in 2018, our 0.9% Sodium Chloride was marketed in the United States for the first time following the FDA approval of all

volume bags in 2017 and 2018. The following table describes the principal hospital products that we manufacture, distribute or install and their respective applications:

Product Description	Main Applications
Intravenous therapy:	
Intravenous fluid and electrolyte solutions. Main product groups include hypotonic solutions, isotonic solutions, hypertonic solutions and plasma volume expander solutions.	Fluid and electrolyte replacement and conduit for the administration of medicines.
Irrigation solutions.	Fluids for urological irrigation.
Intravenous mixtures. Ready-to-use intravenous mixtures of potassium, antibiotics and paracetamol.	Increases safety and efficiency by rendering unnecessary the mixing of solutions at in-hospital pharmacies.
Pharmatech:	
IV Tools. Gri-fill® System uses sterile filtration to prepare intravenous mixtures at in-hospital pharmacies. Misterium™ are modular clean room facilities we sell in the United States and IBAM. The Kiro Oncology automation system is designed specifically for the preparation of cytotoxic drugs. PharmacyKeeper is a web and mobile-based application to improve key pharmacy operational processes.	Improves safety of hospital pharmacy preparation procedures by assuring sterility, traceability, user safety and quality to ensure compliance with regulations.
Hospital Logistics: Includes products such as packaging instruments, software programs, including our own BlisPack®; and logistic dispensing systems, including Pyxis®, StocKey® and StocKey® RFID Smart Cabinet, and Kardex®, for inventory control.	Used in the logistical organization of hospital pharmacies and warehouses, in the preparation of unit dosing and in hospital management, admissions and accounting.
Nutrition:	
Dietgrif® enteral liquid diets. Oral diets with all the requirements for balanced nutrition. Different diets include standard, standard fiber, polypeptidic, hyperproteic and energetic.	For patients who are unable to eat enough to maintain a nutritious diet, administered through feeding tubes as well as orally.
Probiotics. Special complementary diets composed of live microorganisms.	Improves gastroenterology conditions that are the result of a lack of intestinal microflora.
***Medical Devices*:** Disposable sterile therapeutic medical products.	The products have therapeutics uses in urology, radiology, cardiology, neurology, hemodynamics and anesthesia.

The production, marketing or sale of our various Hospital division products are subject to prior registration with authorities of the relevant jurisdictions. We have approximately 186 licenses for our Hospital division products registered in 40 countries throughout Europe, Latin America, Africa, Canada and the United States. Our sales representatives sell primarily to pharmacy, nutrition and gastroenterology units in hospitals and other units in hospitals that use our medical devices, using our own distribution network and external distribution organizations in some Latin American markets.

While our Hospital division generates most of its revenue in Spain (59% of net revenue in 2018), we continue to promote international expansion. In 2017, the FDA approved our 500 ml normal saline solution in polypropylene bags (0.9% sodium chloride) and in 2018 the FDA approved the 50 ml, 100 ml, 250 ml and 1,000 ml candidates. These important milestones reinforced the global expansion of the division and mark an important step forward.

The Hospital division has established a new commercial strategy to promote Pharmatech's presence in Latin America through the use of specialist distributors in this sector, while also maintaining a direct sales effort.

Intravenous Therapy

We manufacture and distribute intravenous solutions, primarily in Spain. In 2017, the FDA approved our 500 ml normal saline solution in polypropylene bags (0.9% sodium chloride), manufactured in our Murcia (Spain) plant, allowing the division to market this product in the U.S. market. The FDA approval also increases the group's self-sufficiency, and the product will also be used in Grifols' U.S. plasma collection centers to restore the circulatory volume in donors. The FDA approval reinforces the division's global expansion and marks an important step forward that opens up the possibility of new future authorizations for other products manufactured in the Murcia and Barcelona facilities. Moreover, it bolsters our global expansion efforts and confirms our strategy of fostering the complement of products and services among its divisions. In addition, we have increased our focus on manufacturing ready-to-use intravenous mixtures for third parties. We believe this approach will contribute to the Hospital division's geographic diversification and allow us to maximize productive use of the Parets facility.

Intravenous paracetamol for Latin America is in the regulatory approval process in Mexico, Colombia and Argentina and approvals are expected shortly, while the product has already been launched in Chile. Intravenous ibuprofen under the Grifols brand is also in the regulatory approval phase in all Iberoamerican countries and Europe while the product has begun to be marketed in the United States. We have signed agreements with each of Henry Schein and Hemasource for 0.9% Sodium Chloride distribution in the United States.

We continue to consolidate third-party manufacturing contracts. In 2018, the Hospital division completed new developments such as the Intercept® Red Blood Cells System, a combination product that includes three blood bags, one filter set plus two inactivation drugs to perform the process of inactivating red blood cells, and milrinone IV ready-to-use flexible bags, both of which have been submitted to regulatory authorities for approval. We have obtained FDA approval for Tirofiban IV (prediluted platelets) and Ibuprofen IV, both ready-to-use in flexible bag products.

Pharmatech: Hospital Logistics and IV Tools

We provide logistic solutions to hospital pharmacies by selling products related to the logistical organization of pharmacies and warehouses of hospitals, including packaging instruments and software programs for hospital management, admissions and accounting departments. Most of these Hospital Logistics products are manufactured by third parties. However, our portfolio includes some products that we manufacture, such as StocKey®, an automated Kanban system designed to optimize hospitals' healthcare material restocking processes, StocKey RFID®, a radiofrequency identification cabinet for the storage of high value medical devices, such as prosthetics and coronary stents, and BlisPack®, a system we have designed and manufactured to automate the cutting of prescription pill blister packs and the electronic identification of specific drugs for individual patients to be used by hospitals.

We also manufacture and distribute a complete portfolio of tools used in connection with the preparation of specific intravenous medication, which we refer to as IV Tools. We have commercialized Misterium®, a cleanroom we designed to order and install on site to customer specifications. We have expanded our Misterium® cleanroom solutions by incorporating airinspace®, a medically effective air and surface decontamination system. As the exclusive distributor of these products in the United States, we are able to offer a broad portfolio of products for U.S. hospital pharmacies and pharmacies specialized in master formulas.

We are managing the global introduction of the Kiro Oncology robot, which automates the preparation of intravenous medication for chemotherapy to reduce the risk that health professionals come into contact with these hazardous products. We expect that the Kiro Oncology robot will be one of the principal drivers of the growth of the IV Tools product line in the near future. This system enables us to offer to hospital pharmacies worldwide what we believe to be the most complete portfolio of solutions for controlling intravenous medication preparation processes. In 2015, Kiro we obtained FDA marketing approval for the Kiro Oncology system and in 2016 it was launched in the United States. In 2018 market penetration continued in Europe as well, with new consumers based in Spain, Sweden, Netherlands and Latvia.

We have continued to develop the IV Tools portfolio with the acquisition of MedKeeper in January 2018. MedKeeper, with a Software-as-a-Service business model, adds the missing piece of a compounding portfolio that enables the division to offer a holistic and integrated technology, software and service solution to our customers.

Nutrition

We develop and distribute enteral nutrition products, including accessories such as feeding tubes and nutritional bags, for sale in the Spanish market. The main driver of the segment is the distribution of gastric probes manufactured by Halyard Health, continuing our leadership in Spain with this product line.

Medical Devices

We also sell other medical devices, such as disposable sterile therapeutic medical products for urology, radiology, hemodynamics and anesthesia. All of these products are manufactured by third parties and complement our portfolio of Hospital division products. We are increasing our strategic efforts to sell medical devices that complement our portfolio of Bioscience division products. The main driver of growth in this segment in 2018 has been Neuroradiology disposables.

Research and Development

Research and development is a significant aspect of our business. Our principal research and development objectives are as follows:

(i) to discover and develop new products;

(ii) to research new applications for existing products; and

(iii) to improve our manufacturing processes to improve yields, safety and efficiency.

Research and development expenses went from €288.3 million in 2017 to €240.7 million in 2018. For the six-month period ended June 30, 2019, research and development expenses were €132.6 million. Recurring research and development spending, excluding the specific impairment of Aradigm's assets, was €223.7 million in 2017. In addition, as of December 31, 2018, we had 985 scientists and support staff dedicated to research and development.

We have over 70 years of successful innovation history. For example, we developed a unique fractionation design that reduces the risk of contamination, reduces maintenance costs and increases the amount of product extracted per liter of plasma. We also developed the first centrifugation unit for the automated cleaning of blood cells. In addition, we were one of the first fractionators to conduct double viral inactivation processes for Factor VIII and have designed and implemented a new process for the sterile filling of vials that reduces exposure to potential contaminants as compared to other existing processes. Further, we have developed a nanofiltration method of viral inactivation for our IVIG, Alpha-1 PI, and ATIII products. As a result of our continuing investment in research and development, we believe that we are well positioned to continue as a leader in the plasma-derived therapies industry.

Bioscience Division Initiatives

The Talecris acquisition complemented our substantial Bioscience division research and development project portfolio.

We have a number of patents and research and development projects in our Bioscience division underway, 28 of which are in the clinical development phase. The following table reflects the total number of research and development projects in our Bioscience division by development phase as of the end of the last three years.

	As of December 31,		
Development Phase	**2018**	**2017**	**2016**
Discovery	12	14	16
Preclinical	12	12	14
Clinical	28	26	27
Post Commercialization Studies	9	10	9
Rest of projects	16	18	20
Total Bioscience Research and Development Projects	**77**	**80**	**86**

The table below presents the most important of our research and development projects:

Product Candidate	Therapeutic Area	Product Type	Potential Use	Development Phase
Albumin and IVIG	Alzheimer's	Plasma-derived	Alzheimer's disease	Phase III (completed in first quarter of 2018)
Antithrombin	Intensive Care	Plasma-derived	Cardiovascular surgery	Phase II for Anbinex® (completed in June 2011)Phase II for Thrombate® III (completed in first quarter of 2018)
Fibrin glue	Surgical bleeding	Plasma-derived	Vascular, organ and soft-tissue surgery	Licensure (November 2017)

AMBAR Study. The Alzheimer Management by Albumin Replacement, or AMBAR, study was a multicenter trial that complemented two previous trials and involved combining therapeutic plasmapheresis with albumin and IVIG in different intervals and in varying doses. Since the AMBAR project was mainly based on albumin, the study also included a treatment arm with albumin alone in order for both approaches, the combination of albumin plus IVIG, and albumin alone, to be covered. Therefore, we conducted a Phase III clinical trial to demonstrate the efficacy of plasmapheresis with Albutein® and Flebogamma® DIF, for improving the cognitive status of patients with Alzheimer's disease. The study was conducted in collaboration with hospitals in Spain and in the United States. We received approval for our study from both the Spanish Agency for Medicine and Health Products (Agencia Española del Medicamento y Productos Sanitarios) and the FDA, and 496 patients enrolled. In 2018, we completed the trial and presented AMBAR top line results, which demonstrated a statistically significant reduction of 61% in disease progression in both primary efficacy endpoints measuring cognition and activities of daily living during a 14-month period. The combination of plasmapheresis (a well-known and safe procedure used in plasma exchange) with Albutein® (albumin, a safe, well tolerated plasma protein with multiple properties) has demonstrated a significant reduction in the progression of the disease in the moderate Alzheimer's disease patients participating in the study and may offer a new treatment pathway for the illness.

We incurred costs in the amount of €5.1 million, €10.1 million and €11.4 million in connection with this project in 2018, 2017 and 2016, respectively. We hold significant granted patents and patent applications on the production of albumin and IVIG as well as on the combination of plasma exchange with albumin replacement for the treatment of Alzheimer's disease.

Antithrombin. In 2008, we initiated research into the clinical efficacy of antithrombin for use on cardiac surgery patients with cardiopulmonary bypass. In June 2011, we concluded Phase II clinical trials involving the use of our antithrombin Anbinex. In June 2014, we began a second Phase II trial for the same indication using Thrombate III. Enrollment was completed in January 2018.

We incurred costs in the amount of €2.4 million, €4.2 million and €3.8 million in connection with this project in 2018, 2017 and 2016 respectively.

Fibrin Glue. We began clinical trials into the safety and efficacy of the use of fibrin glue as a supportive treatment for the improvement of hemostasis in vascular, organ and soft-tissue surgery in 2008. In 2014, we completed a clinical trial in the European Union for the use of fibrin glue in vascular surgery. Three additional clinical trials were performed:

(i) a Phase III clinical trial in the United States for the use of fibrin glue in solid organ surgery

(ii) a Phase III clinical trial in the United States for the use of fibrin glue in soft-tissue surgery and

(iii) a Phase III clinical trial for the use of fibrin glue in vascular surgery in the United States.

All of the U.S. clinical trials for fibrin glue were completed in 2015. Marketing authorization approvals were received from the FDA and EMA in November 2017.

We incurred costs in the amount of €1.1 million, €2.2 million and €7.8 million in connection with this project in 2018, 2017 and 2016, respectively. We hold significant granted patents on the fibrinogen and thrombin production processes.

Other Bioscience research and development projects undertaken during 2018 included the following:

- We developed a high concentration immunoglobulin for subcutaneous administration, for which we received FDA approval in July 2019.
- We are developing Immunoglobulin M for the treatment of bacteremia, fungemia, and other potential clinical indications.
- We are conducting clinical programs to evaluate new indications for Flebogamma® DIF 5% and Gamunex®-C.
- For A1PI, we are developing new vial sizes and concentrations of the liquid formulation of Prolastin®-C, which we expect will lead to important advancements in manufacturing efficiency as well as improved patient convenience.
- We are conducting clinical studies to evaluate the effects of the prolonged administration of human albumin on cardiovascular, hepatic and renal function in patients with advanced cirrhosis and ascites. One study involves the administration of Albutein® 20% and is being conducted at six Spanish hospitals.
- We are conducting a study designed to evaluate the effects of plasma exchange on the functional capacity of serum albumin on cerebral, circulatory and renal dysfunction.

All clinical trials involve risks and uncertainties. Preclinical and clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more of our clinical trials can occur at any stage of testing. We may experience numerous unforeseen events during or as a result of preclinical testing and the clinical trial process that could delay or prevent our ability to receive regulatory approval or commercialize our product candidates. Upon the completion of each of the development stages we evaluate the results achieved as compared to the objectives pursued. Each of the key projects listed above has met our expectations with respect to results at the various development stages and we expect to move forward with the development process for each.

We believe that our current liquidity is sufficient to fund the ongoing costs of our key projects listed above through their completion as well as our other research and development initiatives.

Diagnostic Division Initiatives

Research and development in the Diagnostic division is focused on the development of recombinant proteins and in vitro diagnostic reagents and equipment, principally for pretransfusional testing, hemostasis diagnosis and biological drug monitoring. It is based on enzymatic and immunologic reactions and molecular genetic testing, using different technologies as RBC agglutination, latex particles agglutination, solid phase capture, lateral flow and chromogenic substrates. We have also been involved in research and development activities related to NAT testing of blood and plasma with molecular tests, and during 2017 we obtained FDA approval for a new genetic test to detect alpha-1 antitrypsin deficiency.

The principal research and development projects that we are undertaking in this division are as follows:

(i) development of recombinant proteins for the manufacture by third parties of finished kits, mainly for blood virus screening focused on HIV and hepatitis diagnosis, and also for the manufacture of Grifols finished kits for hemostasis testing as well as for the Immunohematology line of products

(ii) red blood cell typing tests and blood compatibility testing through the use of gel technology, liquid reagents and our patented Multicard device as well as the corresponding automated platforms (the division obtained FDA approval for the Erytra Eflexis analyzer to automate transfusion test based on gel cards)

(iii) genetic detection of red blood cell and platelet antigens (the division obtained the approval of the ID Core XT (Reagents and Analysis Software) for the simultaneous identification of multiple alleles encoding human erythrocyte antigens in genomic DNA)

(iv) the development of an automatic ELISA platform and a broad menu of drug and anti-drug ELISA kits

(v) the development of a complete range of hemostasis reagents and automatic equipment

(vi) the development of finished kits for NAT testing for infectious disease, including Zika virus detection, for which the FDA has granted a BLA and

(vii) the development of further multiplexed tests based on NAT technology.

In 2018 we received FDA approval for a genetic test for alpha-1 deficiency assessment and started developing a fully automated Immunoassay platform for the serological testing of plasma and blood donations.

In addition, the Diagnostic division is developing medical devices for the extraction and storage of blood components. In 2018, we received the marketing authorization approval from Spain CE Mark Notified Body for Leucored RC bags soft filter. The principal products under development were phthalate (DEHP)-free blood bags, Leucored Platelet kits, and Leucored WB bags.

Hospital Division Initiatives

Research and development in the Hospital division focuses on delivering products, integrated technology solutions, and services that improve safety, quality and efficiency in the operational pharmacy. The Hospital division is comprised of multiple subdivisions including IV Solutions, Contract Manufacturing and Pharmatech. Significant research and development activities are ongoing in each of these subdivisions.

The principal projects currently under development in the IV Solutions group (Laboratorios Grifols) are a flexible plastic container closure system for biological products, 0.9% Sodium Chloride in Fleboflex Luer needle-free container for the United States, an anticoagulant solution, a nonsteroidal anti-inflammatory solution (NSAID) and two new presentations (2.5/5 and 15/20 ml) of sterile water for injection (SWFI) in vials. In addition to other applications, the Fleboflex Luer containers will also be used in the new Kiro Fill® system. During 2018, we received FDA marketing authorization approval for the 50, 100, 250 and 1000 ml physiological saline solution (0.9% sodium chloride) manufactured at the Murcia facility and for a new set (peristaltic set) for the Gri-fill® system in Europe and the United States. In the fluid therapy market, work continues on the study of the stability of various ready-to-use mixtures in polypropylene packaging, in order to increase the range of mixtures available for hospital use.

This subdivision also works on several cross-divisional initiatives. As part of the AMBAR study, the Hospital division is collaborating on the development of special devices and containers specifically designed for the procedures and protocols of the study. There is collaboration with the Diagnostic division on the manufacturing of the cuvette of Q-Coagulometer. The partnership with the Bioscience division includes the development of a plastic holder for syringes of Fibrin Glue, among others. Within the Contract Manufacturing product group, devoted to offering development and manufacturing services for third parties, mainly in the United States, the Hospital division has completed projects including a set for inactivation of red blood cells and milrinone IV ready-to-use flexible bags, which have been submitted to the regulatory authorities for approval.

While certain products were gaining FDA approval, commercial manufacturing commenced for products such as Tirofiban IV and Ibuprofen IV, both in ready-to-use flexible bags. Further projects are in the first phase of development, such as Fluconazol IV ready-to-use flexible bags. New projects, in the scope of ready-to-use IV mixtures, are in development.

Finally, the Pharmatech subdivision is devoted to the development of a comprehensive IV compounding portfolio of integrated technology solutions with devices, software, and services. The portfolio includes our legacy products such as the Gri-fill® system along with those more recently added from the acquisitions of MedKeeper and Kiro such as the PharmacyKeeper suite of software solutions, KIRO Oncology automated IV compounding system for oncology preparations and the KIRO Fill® system for automated filling of syringes which is currently under development. We are also developing a new version of the Gri-fill® system.

This subdivision has an active research and development program which includes the development of new software and state-of-the-art technology, such as cloud-based systems, mobile apps and Radio-Frequency Identification (RFID), to improve interoperability, efficiency and overall workflow and productivity in the operational pharmacy. Other fields of development include the traceability and inventory management of high cost implants and other medical devices.

Other Initiatives

In addition, we are increasing our research and development activities in new fields. We conduct these activities through the creation of joint ventures participated in by Grifols Innovation and New Technologies Ltd (GIANT), established in 2016, through agreements to use patents owned by third parties and through selective acquisitions.

Our acquisitions of Araclón and VCN Biosciences in 2012 expanded our research and development capabilities in fields outside of our traditional business segments. Araclón is dedicated to finding solutions that promote new diagnostic and therapeutic approaches to Alzheimer's disease. Araclón is working on the validation of an early diagnostic kit and the development of a vaccine to combat Alzheimer's disease in the asymptomatic preclinical stage. The vaccine has passed the animal experimentation stage and a Phase I clinical trial in humans has been completed. In 2017 Araclón obtained approval by the Spanish Drug Regulatory Agency (*Agencia Española del Medicamento y Productos Sanitarios*) of a Phase II trial of the AB40 vaccine in Alzheimer disease patients and started recruitment. By the end of 2018, 50% of the necessary patients had signed up to participate in the Phase II trial. VCN Biosciences is investigating and developing new therapeutic approaches based on oncolytic adenoviruses to treat tumors for which there is currently no effective treatment. Its most advanced project focuses of the treatment of pancreatic cancer. The Spanish Agency for Medicine and Health Products (Agencia Española del Medicamento y Productos Sanitarios) approved two Phase I clinical trials for this project and VCN Biosciences began recruiting patients for the Phase I trials in the first quarter of 2014. In 2017 VCN obtained approval by the Spanish Drug Regulatory Agency of another Phase I/II trial of VCN-01 in pediatric patients with Retinoblastoma.

In 2015 we initiated a partnership with Alkahest, acquiring 47.58% of the equity of the company, to develop plasma-based products for the treatment of cognitive decline in aging and other central nervous system (CNS) disorders, including Alzheimer's disease. In 2017 Alkahest obtained approval by the FDA of a Phase I/II clinical trial of a plasma fraction (GRF-6019) in Alzheimer's disease patients and the trial began in 2018. Also, a second trial of GRF-6019 was initiated in a population of severe Alzheimer's disease patients. At the pre-clinical level, new potential clinical indications are being tested with plasma fractions.

In 2016, we acquired 30% of the equity of AlbaJuna Therapeutics, a spin-off company from the IrsiCaixa AIDS Research Institute, promoted jointly by "la Caixa" Foundation and the Department of Health of the Government of Catalonia, and established to promote the pre-clinical and clinical development of monoclonal antibodies that neutralize the effect of HIV in the body while increasing the activity of the natural killer cells that have the task of destroying infected cells. At the end of 2018, candidates for the trial treatment were preselected based on their biochemical and pharmacological characteristics in order to start preclinical development. In 2019, we acquired an additional 19% equity interest in AlbaJuna.

In 2017, we acquired a 43.96% equity interest in GigaGen, a pre-clinical biotherapeutics company based in San Francisco (California) specialized in the research activities to develop recombinant plyclonal immunoglobulin therapies derived from human B cells for the treatment of human diseases. In 2018, Gigagen started to work in the development of Hyperimmune immunoglobulin.

In 2018, GIANT signed a collaboration agreement with IrsiCaixa AIDS Research Institute for five years to join forces to promote biomedical research on HIV and associated diseases.

Seasonality

Our businesses are not significantly affected by seasonal trends.

Raw Materials

The cost of plasma, the key raw material used in the production of plasma-derived products, slightly increased as compared to 2016, due to the investment plan to expand plasma collection centers in the United States to support growing demand for plasma proteins as well as the trend towards greater incentives to reward donors for their time. We continue to monitor the efficiency of our plasma collection platform and have concentrated all of our plasma testing into our two laboratories in Austin, Texas.

In June 2018, we completed the acquisition of Haema, a German based pharmaceutical company that owns 35 collection centers throughout Germany, for a purchase price of €220 million on a debt free basis. In August 2018, we completed the acquisition of Biotest US, a U.S. based pharmaceutical company that owns 24 plasma collection centers, for a purchase price of $286 million. In December 2018, we sold our 100% equity interest in Haema and Biotest US to Scranton Enterprises B.V., one of our major

shareholders and a related party, for a total of $538 million. We will have the ability to repurchase the shares sold to Scranton Enterprises B.V. at any time. Our plasma supply agreement among Grifols, Grifols Worldwide Operations Limited, Biotest Pharmaceuticals and Haema, or the Plasma Supply Agreement, was effectively extended on January 1, 2019 for a 30-year period, and we continue to operate the companies' plasma centers. We believe our Plasma Supply Agreement will play a key role in fulfilling our plasma requirements through 2019 and beyond, along with plasma collected through our plasma collection centers and plasma purchased from third-party suppliers pursuant to various plasma purchase agreements.

The principal raw materials for our intravenous therapy products are plastic and glass bottles, which we purchase from various European suppliers

Marketing and Distribution

We currently sell Bioscience, Diagnostic and Hospital products to hospitals and clinics, GPOs, governments and other distributors in over 100 countries.

In the United States, the sales model is complex, with many intermediaries, requiring us to execute multi-faceted arrangements for the distribution of our products. Sales of finished goods are distributed through various channels such as distributors, wholesalers, specialty pharmacies, home health care companies, clinics, hospitals, government entities and directly to physician offices. Payers and purchasers also control access to products, requiring separate negotiations with payers and GPOs. GPOs are entities that act as purchasing intermediaries for their members, which are primarily hospitals. GPOs negotiate the price and volume of supplies, equipment and pharmaceutical products, including plasma derivatives, used by their members.

We market our products to healthcare providers and other decision-makers, such as those in hospitals, through focused sales presentations. Although price and volume are negotiated through contractual agreements with intermediaries, demand for our products is generated through promotional efforts by our sales representatives. In the case of GPOs, the actual sales are made to each GPO's authorized distributors at the contract price, and the distributor then sells the products to that GPO's members. We promote our products directly to the GPO's members. For safety and post-sale service reasons, the distributor is required to provide us with the specifics of the ultimate delivery to the client.

The sales, marketing and distribution process is different in Europe, where the bulk of sales are generally made directly to hospitals. We have developed long-standing relationships with major hospitals in most of our European markets, and we believe that hospitals are loyal customers that recognize the high quality and safety of our products, our reliability as a supplier and the strong product expertise and service provided by our sales representatives. Due to the nature of our customer base and the prevalence of repeat sales in the industry, we market our products through focused sales presentations rather than by advertising campaigns.

Sales to Eastern Europe, the Middle East and some Asian countries are made mostly by third parties outside of our sales network. Our sales in Latin America are made mainly by our sales network.

Sales Representatives

We require our sales representatives to be able to highlight the technical differences between our products and those of our competitors. This skill requires a high degree of training, as the salesperson must be able to interact and discuss product differences with doctors, pharmacists and other medical staff. Sales representatives call on office-based healthcare providers and hospital-based healthcare providers, departmental heads, purchasing agents, senior hospital directors, lab directors and pharmacy managers. We compensate our sales representatives by means of a fixed salary and a bonus component based on sales. We divide our sales efforts along the lines of our main product categories. Our sales personnel are primarily located in Europe and the United States, but we also have sales personnel in Latin America and the Asia-Pacific region.

In our Bioscience division, we utilize mixed sales units comprised of both marketing and sales personnel and product line specific sales units for immunology & neurology, pulmonary and coagulation factors.

Advertising

We participate in medical conferences and fairs and occasionally publish advertisements in medical journals and trade magazines. This promotional activity is also supported by online activities.

Distribution

We believe that having our own distribution network staffed with highly trained personnel is a critical element of a successful sales and marketing effort. Through this network, we are able to provide high quality pre- and post-sales service, which we believe enhances brand recognition and customer loyalty. Our distribution network is experienced in the proper handling of our products and allows us to know where our products are located, enabling us to act quickly in the event of a suspected problem or product recall.

Our distribution network personnel are located in Europe, Latin America, the United States and Asia Pacific and handle the distribution of our biological medicine, diagnostic and other medical products as well as goods manufactured by other premier healthcare companies that complement our own products.

During 2018, we distributed the majority of our products through our own distribution network. In some cases, particularly in the field of Diagnostics, we distribute products through marketing partners and third-party distributors. We have a direct presence in 30 countries and we carefully select distributors in the countries were we do not have a direct presence. We have a responsive, effective logistics organization that is able to punctually meet the needs of hospital centers and other customers throughout the world.

Our sales, marketing and distribution network included 1,449 employees as of December 31, 2018, which included 1,265 sales and distribution personnel and 184 marketing employees.

Each of our commercial subsidiaries is responsible for the requirements of the local market. It is our goal for each commercial subsidiary to be recognizable as one of our companies by its quality of service, ethical standards and knowledge of customer needs. Strong local knowledge enables us to build and maintain long term relationships with customers in the hospital to earn their trust and confidence.

Patents, Trademarks and Licenses

Patents and Trademarks

Through our patent ownership, co ownership and licensing, we seek to obtain and maintain intellectual property protection for our primary products.

As of December 31, 2018, we owned 2,965 patents and patent applications in various countries throughout the world, of which 600 are in the final application process. In some countries, these patents grant a 20-year protection period. 1,128 of these patents are set to expire in the next ten years. As of December 31, 2018, we also owned 3,188 trademarks in various countries throughout the world, of which 177 are in the final application process. In addition, we co-own certain patents and patent applications with third parties, including patent rights co-owned with Novartis following the Novartis acquisition.

We maintain a department with personnel in Spain and in the United States to handle the patent and trademark approval and maintenance process and to monitor possible infringements.

Plasma Derivative Products

As of December 31, 2018, we owned 1,924 patents and patent applications related to plasma derivatives, including 971 in Europe, 152 in the United States and Canada and 801 in the rest of the world. The most important of these patents relate to the following:

- the process for the production of virus-inactivated human Gamma Globulin G
- the process for removing viruses in fibrinogen solutions
- the preparation of plasminogen
- a concentrated subcutaneous Immunoglobulin G injection, and
- concentrated Immunoglobulin M preparations for the treatment of bacterial infections.

Hospital and Diagnostic Products

As of December 31, 2018, we owned 1,039 patents and patent applications related to our Hospital and Diagnostic products in Europe (643), the United States and Canada (105) and in the rest of the world (291). The most important of these patents relate to the following:

- Gri fill® System, a process for the sterile filling of flexible material bags
- BlisPack®, a blister handling machine

- Erytra Eflexys®, a mid-sized instrument to perform pre-transfusion compatibility tests using DG Gel® technology
- innovative containers for human plasma proteins
- blood screening antibodies, antigens and recombinant proteins, and
- screening assays for bloodborne parasites.

Other

As of December 31, 2018, we owned two patents and patent applications related to other areas of the business, including one in Europe and one in the United States and Canada.

Licenses from Third Parties

We license certain intellectual property rights from third parties, including Bayer, Singulex and Hologic. Under a licensing agreement with Bayer, Talecris was granted a royalty-free, worldwide and perpetual license covering certain intellectual properties not acquired by Talecris in connection with its formation transaction. We assumed this licensing agreement in connection with the Talecris acquisition. Singulex granted us an exclusive worldwide license under certain intellectual property rights for the use and sale of certain products and services for blood donor and plasma screening. Pursuant to an intellectual property license with Hologic, we obtained a fully paid-up license to certain of Hologic's intellectual property for use in the NAT Donor Screening Unit.

Licenses from Government Authorities

Government authorities in the United States, at the federal, state and local level, and in other countries throughout the European Union, Latin America, Asia and elsewhere, through licenses, approvals, reviews, inspections and other requirements, extensively regulate the research, development, testing, approval, manufacturing, labeling, post-approval monitoring and reporting, packaging, promotion, storage, advertising, distribution, marketing and export and import of healthcare products such as those that we collect, manufacture, sell or are currently developing.

For example, in order to sell our plasma derivative products we must hold appropriate product licenses from applicable governmental authorities. We have 683 hemoderivative product licenses registered in 93 countries, which include the licenses we hold from the FDA for the sale in the United States of IVIG, A1PI, albumin, Factor VIII, Factor IX, ATIII and PTC. The production, marketing and sale of many of our Diagnostic division products are subject to the prior registration of such products with the relevant authorities of the applicable jurisdictions. We have over 2,323 diagnostic product licenses registered in a total of 71 countries in Europe, the United States, Canada, Latin America, Africa and Asia. With respect to our various Hospital division products, we have close to 187 licenses for our Hospital division products registered in 39 countries throughout the European Union, Latin America and the United States.

Governmental oversight extends to the various facilities involved in our operations. For example, our Parets and Murcia facilities are subject to applicable regulations and standards of the European health authorities. With respect to oversight by the FDA, our Instituto Grifols Bioscience plant at our Parets facility has been registered with the FDA since 1995, and our other manufacturing facilities maintain FDA registration, and all are subject to FDA standards. We lease most of our plasma collection centers as well as our main laboratory facility located in Austin, Texas, and maintain licenses with the appropriate regulatory authorities, including the FDA, for all of these locations.

Property, Plant and Equipment

Our headquarters is located in Barcelona, Spain. As of December 31, 2018, we owned or leased facilities in six countries. We currently own or lease manufacturing facilities in ten sites in nine different locations,

three of which have plasma fractionation capabilities. The table below shows the geographic location and business purpose of our principal properties as of December 31, 2018.

Location	Facility	Own/Lease[2]	Business Purpose
Parets del Vallès, Spain	Industrial Facility One Parets	66% owned; 34% of the property is leased from a third party	Plasma fractionation Manufacture of plasma derivatives & division support activities
	Industrial Facility Two Parets	80% owned; 20% of the property is leased from a third party	Manufacture of Diagnostic and Hospital products
	Industrial Facility Three Parets	69% owned; 31% of the property is leased from a third party	Plasma storage & other operating activities
Los Angeles, California	Industrial Facility	92% owned; 8% of the property is leased from a third party	Plasma fractionation Plasma purification Manufacture of plasma derivatives
Clayton, North Carolina	Clayton Facility	Own	Plasma fractionation Manufacture of plasma derivatives
Durham, North Carolina	Research Triangle Park	25% owned, 75% of the property is leased from a third party	Research and Development Labs and Offices
Emeryville, California	Emeryville Facility	79% owned; 21% of the property is leased from a third party	Manufacture of Diagnostic products
City of Industry, California . . .	City of Industry	Lease	Plasma storage
Murcia, Spain	Industrial Facility Murcia	82% owned; 18% of the property is leased from a third party	Manufacture of Hospital products
Fribourg, Switzerland	Industrial Facility Switzerland	Lease	Manufacture of Diagnostic products
Melbourne, Australia	Industrial Facility Australia	Own	Manufacture of Diagnostic products
Austin, Texas	Plasma Testing Lab	Lease	Plasma testing
San Marcos, Texas	Plasma Testing Lab	Own	Plasma testing
San Diego, California	San Diego Facility	76% owned; 24% of the property is leased from a third party	Manufacture of components of the TMA amplified NAT kits
Dublin, Ireland	Global Operations Center	Own[1]	Operating activities related to the Bioscience division
Sant Cugat del Vallès, Spain . .	Headquarters	Lease	Headquarters
Campo Largo, Curitiba, Brazil .	Industrial Facility Brazil	Own	Manufacture of Diagnostic products

(1) We hold a 999 year leasehold interest in the property.

(2) Lease percentage based on property size.

Plasma Fractionation Plants

Our plasma derivative products are manufactured at our Clayton, Los Angeles and Parets facilities. All of our fractionation facilities have FDA and EMA certification. The Spanish and American facilities currently have an aggregate fractionation capacity of approximately 14.8 million liters of plasma per year, and this capacity is sufficient to cover our current production needs.

The Parets facility has a fractionation capacity of 5.0 million liters per year and a unique design that separates the maintenance area from the clean areas required for the fractionation and purification procedures. This design, which we developed in house, minimizes the risk of contamination and reduces

maintenance costs. In addition to licenses from the European Union and other authorities for the production of various plasma derivative products, the Parets facility is licensed by the FDA for the production of albumin and IVIG. We are one of the few European plasma derivatives plants to be licensed by the FDA. In addition to the plasma fractionation facilities, the Parets facility also has energy generation, research and development, packaging and storage facilities for the Bioscience division and manufacturing for the Hospital and Diagnostic divisions. The Parets facility holds ISO 14001 and ISO 9001 certifications for its parenteral solutions and diagnostic manufacturing facilities. In addition, the Clayton facility in North Carolina holds the ISO 14001 certification by TÜV Rheinland Iberica Inspection, Certification & Testing S.A. The ISO 14001 certification recognizes excellence and continuous improvement in environmental performance. The scope of the certification includes research, development, production and quality control of pharmaceutical specialties derived from human plasma at the Grifols Clayton facility. We acquired our Los Angeles facility in July 2003, in connection with our acquisition of Alpha's plasma fractionation business. We subsequently made significant capital investments in the facility, including the construction of purification and aseptic filling areas for coagulation factors and albumin, which were completed in 2006 and 2009, respectively, and an increase of the fractionation capacity by 0.7 million liters to 2.2 million liters, which was approved by the FDA during 2009. The Los Angeles facility is subject to regulation by the FDA. From the date of acquisition through March 15, 2012, the Los Angeles facility operated under a consent decree from the FDA and the DOJ dating to the time the plant was owned and operated by Alpha. On March 15, 2012, the U.S. District Court for the Central District of California entered an order vacating the consent decree.

We acquired our Los Angeles facility in July 2003, in connection with our acquisition of Alpha's plasma fractionation business. We subsequently made significant capital investments in the facility, including the construction of purification and aseptic filling areas for coagulation factors, IVIG and albumin. The Los Angeles facility is subject to regulation by the FDA and it has a fractionation capacity of 2.4 million liters per year.

As a result of the Talecris acquisition, we acquired the Clayton facility. Since the acquisition, the Clayton facility has benefited from significant capital investment, including compliance enhancements, general site infrastructure upgrades, capacity expansions and new facilities, such as its chromatographic purification facilities and its high capacity sterile filling facility. The Clayton facility is one of the world's largest fully integrated facilities for plasma-derived therapies, including plasma receiving, fractionation, purification, filling/freeze drying and packaging capabilities, as well as freezer storage, testing laboratories and a cGMP pilot plant for clinical supply manufacture. We completed construction and received FDA approval of the new Clayton fractionation plant in 2014, which expanded our fractionation capacity at Clayton, taking its fractionation capacity to 7.4 million liters per year as of 2018. In 2015 and 2016, we operated our two Clayton fractionation facilities while transitioning all fractionation to the newly constructed one. The transition of all significant production was successfully completed during 2016. We are currently working on a new fractionation plant in Clayton with 6.0 million liter capacity per year. We expect it will be in operation in 2021.

Global Operations Center

In the last quarter of 2015, we officially opened a global operations center for our Bioscience division. The new facilities, located in Dublin, Ireland, occupy 22,000 square meters. The new facility centralizes decision-making with regard to commercial policy, research and development policy and supply chain global management. It houses Bioscience's global logistics and distribution activities; warehousing of plasma, intermediate paste and finished product, labelling, packaging and final conditioning of the product; as well as regulatory and quality activities relating to the supply of plasma and plasma derivatives. It also centralizes our treasury function and acts as our point of access to the capital markets.

We are currently building an albumin purification and filling plant that we expect will be in operation in 2021.

Insurance Coverage

General and Product Liability

We have a program of insurance policies designed to protect us and our subsidiaries from product liability claims. Effective May 1, 2018, we have product liability insurance coverage for up to $220 million per claim and in annual aggregate for products manufactured in all of our facilities and for third-party products we sell. This policy expires on April 30, 2020. We have elected to self-insure the first $38.5 million per claim

and in annual aggregate of our product liability policy through the purchase by one of our subsidiaries of such portion of the insurance policy.

Our master liability program also protects us and our affiliates from certain environmental liabilities arising in those countries in which our subsidiary companies have operations. This risk is covered up to a maximum of $220 million per claim and in annual aggregate.

Biomat USA and Talecris Plasma Resources maintain a separate liability insurance policy. The policy covers their professional liability for plasmapheresis business activities and expires on April 30, 2020. The maximum amount of coverage for liability claims under the policy is $15 million per claim and in the annual aggregate. In addition, we have general liability coverage for up to $220 million per claim and in the annual aggregate for Biomat USA and Talecris Plasma Resources.

Property Damage and Business Interruption

Our property damage and business interruption insurance program covers us and our subsidiaries (including our U.S. subsidiaries). This insurance program, which expires on April 30, 2020, covers damages suffered by plants and buildings, equipment and machinery. Under the current terms, the insurer will cover damages to our facilities produced by fire, smoke, lightning and explosions, among others, for up to $1.5 billion per occurrence. It also covers material damages produced by flooding, for up to €100 million per claim and in the annual aggregate.

In addition, this policy covers loss of profit for a period of 36 months with a deductible equivalent to up to five business days of lost profits. Pursuant to the loss of profit, in the event that any or all of our plants stop production due to an event not excluded under the policy, the insurer covers fixed expenses, in addition to net profits we did not earn during the term of coverage.

In addition, this policy covers property damage and business interruption caused by an earthquake in California, up to a limit of $20 million per year.

We also have a transit and inventory insurance program, which covers damages to raw materials, supplies, semi-finished products and finished products for up to $25 million per claim for transit and $650 million for inventory in annual aggregate.

Self-insurance

We are self-insuring part of the risks described above through the purchase of a portion of the relevant insurance policies by Squadron Reinsurance, one of our wholly owned subsidiaries. We self-insure the first $38.5 million per claim per year of our product liability policy, the first €200,000 per loss for property damage and the first ten days of lost profits, the first $27,000 per claim for transit losses, the first €200,000 per claim for inventory losses and $15 million for damages caused by an earthquake in California. These amounts are in excess of the deductibles for each of the policies that make up our insurance programs.

Employees

The table below indicates the number of employees by department as of December 31, 2018, 2017 and 2016:

Department	2018	2017	2016
Manufacturing	17,147	14,577	11,400
Research & development—technical area	984	963	812
Administration and others	1,396	1,112	1,095
General management	254	230	238
Marketing	184	187	168
Sales and distribution	1,265	1,227	1,164
Total	**21,230**	**18,296**	**14,877**

We actively train our employees. The Grifols Academy opened in Spain during the second quarter of 2011. It is a meeting point for advanced training on all processes related to the preparation and production of plasma derived medicines. In addition, the Grifols Academy serves to actively spread and strengthen the "Grifols' spirit" that guides employee actions and their understanding of the business. It also acts as a center of technical, scientific and management training for our personnel, fostering a continued exchange

among experts and external bodies, such as professional healthcare associations, hospitals, schools and universities.

The Grifols Academy works closely with the Grifols Academy of Plasmapheresis, which opened in Phoenix, Arizona in 2009. The Grifols Academy of Plasmapheresis has two U.S. campuses, Glendale, Arizona and Indianapolis, Indiana.

Our Spanish employees are represented by two labor unions, the Workers' Commissions (*Comisiones Obreras*) and the Workers General Union (*Unión General de Trabajadores*). The employees of some of our subsidiaries in Spain, Germany, Italy, France and Argentina are covered by collective bargaining agreements. The remainder of our employees are not represented by labor unions. We have not experienced any significant work stoppages in the last 15 years, except for a one day general strike in Spain in June 2002. We generally consider our employee relations to be good.

We subscribe to an insurance policy that covers death or permanent disability of employees caused by work accidents. All of our employees are covered under this policy. We implemented a defined contribution pension plan in all our Spanish entities beginning on January 1, 2002, which excludes top management and which requires us to make matching payments to these employees. Our contribution to this pension plan was €777,000 in 2018, compared to €725,000 in 2017 and €674,000 in 2016. We also sponsor a savings plan for the benefit of U.S. employees, which qualifies as a defined contribution plan under Section 401(a) of the Internal Revenue Code of 1986, as amended. We make fully vested matching contributions to the savings plan which totaled $20.7 million for 2018, compared to $18.9 million in 2017 and $17 million for 2016. For certain employees in Germany, we have a defined benefit pension plan, as required by statutory law. The pension cost relating to this plan is not material.

Legal Proceedings

We are involved in various legal proceedings in the ordinary course of our business. In the event of adverse outcomes of these proceedings, we believe that resulting liabilities will either be covered by insurance or not have a material adverse effect on our financial condition or results of operations.

On February 3, 2017, bioMérieux filed suit against Hologic, Grifols, and Grifols Diagnostic Solutions in the U.S. District Court for the Middle District of North Carolina, alleging infringement of U.S. Patent Nos. 8,697,352 and 9,074,262 by virtue of defendants' activities with respect to the Procleix HIV-1/HCV Assay®, Procleix Ultrio Assay®, and Procleix Ultrio Plus® products. Hologic and Grifols Diagnostic Solutions filed a motion to dismiss for failure to state a claim on April 3, 2017. As a result of a claim of improper venue, the case was transferred to the U.S. District Court for the District of Delaware in early 2018. Hologic and Grifols Diagnostic Solutions are pursuing defenses of failure to state a claim, non-infringement, invalidity, and that the infringement claims are contractually barred. Additionally, Grifols intends to pursue dismissal for lack of personal jurisdiction.

A hearing with Markham (Claim Construction) was conducted on January 29, 2019. The Patent and Trademark Appeals Board ("PTAB") denied Hologic's requests for Institution of Inter Parties Review and denied subsequent requests for a rehearing of the PTAB decisions. On March 31, 2019, the Court issued its order on the plaintiffs to sever and stay their contractual defense under the Non-Assertion Agreement pending resolution of the liability issues. The Court severed but did not stay the defense and imposed a deadline on any motion to compel arbitration. The parties opted not to file an arbitration demand. Fact discovery has been completed. The order was issued on June 11, 2019. The Court adopted Plaintiffs' claim constructions for the four disputed terms.

On October 4, 2016, Enzo Life Sciences filed suit against Hologic in the U.S. District Court for the District of Delaware, alleging infringement of U.S. Patent No. 6,221,581 by virtue of Hologic's activities with respect to Progensa®, Procleix®, and Aptima®products. On November 9, 2017, the Court granted Enzo's motion to amend its complaint to add Grifols and GDS as defendants with respect to the Procleix® products at issue. Hologic and GDS have answered the complaint, alleging non-infringement and invalidity among their defenses. GSA has moved to dismiss for lack of personal jurisdiction. The case schedule has been extended in light of the addition of Grifols-related entities as co-defendants, with Hologic and GDS currently engaged in fact discovery. The case was dismissed on April 25, 2019. The terms of the settlement agreement include a one-time payment of $3.5 million to Enzo in exchange for fully paid-up, worldwide licenses to Hologic and Grifols.

Antitrust Approval of Talecris-Grifols Merger

On July 20, 2011, the Federal Trade Commission, or FTC, issued a final order, or Consent Order, to settle its May 31, 2011 charges that our acquisition of Talecris was anticompetitive and would have resulted in higher prices for consumers. Pursuant to the Consent Order, we divested to Kedrion, on June 2, 2011, certain assets, including the following:

(i) Talecris' Melville, New York manufacturing facility, which we refer to as the Melville facility

(ii) United States marketing rights to Koate® antihemophilic factor

(iii) an agreed quantity of plasma and

(iv) two plasma collection centers located in Mobile, Alabama and Winston Salem, North Carolina.

Further, pursuant to the Consent Order, we and Kedrion entered into a contract manufacturing agreement under which we are supplying to Kedrion, for a period of seven years ending in 2018, Koate® and private label IVIG and albumin, for sale by Kedrion in the United States, and Kedrion exercised an option in 2014 to purchase a non-exclusive license to Koate®-related intellectual property for use in the United States. In accordance with the Consent Order, we leased the Melville facility from Kedrion until July 1, 2013, when we turned over operations at the facility to Kedrion.

Effective July 1, 2013 we agreed with Kedrion to terminate the lease agreement early and completed the transfer of operations at the Melville facility to Kedrion. We also entered into a three-year fractionation agreement whereby Kedrion would continue to fractionate limited amounts of plasma for further manufacture by us.

The Consent Order provides for a monitor to oversee our compliance with the Consent Order and requires us to submit to the FTC annual compliance reports for ten years. We filed our first compliance report pursuant to paragraph IX.B of the Consent Order, on July 20, 2012. We filed our eighth compliance report in July 2019. There has been no further action by the FTC. Our next compliance report is due in July 2020.

Antitrust Approval of Biotest Pharmaceuticals Corporation Acquisition

In August 2018, the FTC issued a consent order which allowed the acquisition of 24 donor centers and required the divestiture of three centers to Kedrion. The consent order requires annual reports to be made to the FTC for a period of 10 years. The first annual compliance report is due in March 2020.

The Plasma Industry

We operate within the plasma industry. We refer to our operations pertaining to the plasma industry as our "Bioscience Division".

Introduction

Plasma derivatives are proteins that are found in human plasma. Once isolated and purified, they have therapeutic value in a number of rare, chronic and life-threatening diseases such as immunological deficiencies, chronic cirrhosis and alpha 1-anti-trypsin deficiency. Plasma, a liquid that accounts for approximately 55% of blood, is obtained after separation via centrifugation of red blood cells, white blood cells and platelets. Proteins are the key component of plasma, accounting for 7% of plasma's composition (water accounts for 90% of plasma's composition). The main proteins found in plasma are albumin, which accounts for 60% of protein volume, alpha (used to produce alpha-1) and beta globulins, which account for 21%, immunoglobulins (used to produce IVIG), which account for 15%, coagulation factors, which account for 1%, and other proteins, which account for the remaining 3%. There are hundreds of proteins present in plasma, however, only a handful of these proteins have so far been developed for therapeutic applications.

The plasma industry is characterized by essential raw materials (representing greater than 50% of costs on average), with access to raw materials important to growth. Plasma can be obtained from three main sources: long-term blood supply agreements with blood donation organizations, plasma collection centers and third-party suppliers. There are two main methods for obtaining plasma, the "plasmapheresis" method, which is the main source of plasma for the United States and internationally, and the traditional method.

Plasmapheresis was developed by Dr. Grifols in 1949. Plasma obtained through plasmapheresis is referred to as "source plasma". Through this method, plasma is mechanically separated from the cellular elements of blood (such as red and white cells and platelets) through centrifugation or membrane filtration at the time the donation is made. These cellular elements are then returned to the donor as part of the same procedure. Because blood cells are returned, it is possible for individuals to donate plasma up to twice per week, making this method more viable than the traditional method for obtaining plasma. The traditional method is through the separation of plasma from blood obtained from a blood donation, referred to as "recovered plasma". Although recovered plasma may be used in the production of plasma derivatives, because donors are limited to making one donation every three months, the amount of plasma obtained through this method is insufficient to cover the existing demand for plasma.

In order to prevent the deterioration of coagulation factors, plasma is typically frozen as soon as possible after collection. Source plasma is generally frozen within six hours following donation, whereas recovered plasma must first be separated from the blood cells and frozen within 24 to 72 hours if intended for the fractionation and purification of proteins.

According to the MRB, the human plasma-derived products industry has demonstrated revenue growth at a compound annual rate of approximately 9.1% from 2000 to 2017, with estimated worldwide sales of $23 billion in 2017. Sales in North America have grown at a compound annual rate of approximately 12.2% from 2005 through 2017, with sales of $10.7 billion in 2017, representing a 7.8% increase over 2016, according to the MRB. The industry has experienced consistent worldwide growth in demand, driven by increased volume and moderate price increases. Demand for plasma derivatives has grown substantially through active management of disease, the discovery of new therapeutic applications, better diagnoses of the conditions treated with plasma-derived proteins, the development of new products and the increase in prophylactic use. According to the MRB, the two main regions for sale of plasma derivatives in 2017 were the United States and Canada and Asia Pacific, which together represented 72.7% of global sales of plasma-derived therapies. Based on our internal estimates and other external data, these areas continue to concentrate the largest share of global plasma-derived protein sales.

According to the MRB, the largest sales region is North America, with $10.7 billion in 2017, followed by Asia Pacific, estimated to be $6.1 billion. Although prices are not regulated in the United States, the presence of large group purchasing organizations ("GPOs"), which are entities that act as purchasing intermediaries for hospitals and physicians, may create pricing pressure as they command substantial purchasing volumes. Prices in Europe are subject to regulations that fix maximum prices in certain countries.

The table below shows the historical evolution of sales by the plasma derivatives market in billions of dollars:

2003	2005	2008	2010	2012	2014	2017
$5.8	$7.0	$11.6	$13.7	$15.2	$19.7	$23.2

* Source: *MRB*

The policy of the World Health Organization and many European jurisdictions is based on a recommendation that blood and its derivatives be obtained from voluntary, altruistic donors. Payment to donors is prohibited in most European countries; however, the United States permits payment to donors. Because of this limitation, most European countries are unable to meet their supply requirements from their own domestic supply (as plasma collected in Europe is generally only used in the country where it is obtained) so rely on paid donations from the United States to fill the supply gap. Unlike Europe, the United States only permits the sale of plasma derivative products that have been manufactured with plasma collected in the United States. Plasma collected in the United States can also be sold in most other world markets. Due to these dynamics, the United States supplied approximately 45% of the world's plasma in 2017.

The plasma collection industry is heavily regulated in the United States. Federal, state and local regulations are designed to protect the health of the donors as well as the integrity and safety of the plasma. In the United States, the opening of a plasma collection center is subject to a licensing and certification process by the FDA and periodic inspections of facilities and processes. Normally it takes approximately 12 months from the time a collection center begins to operate until a plasma collection center receives FDA approval. The FDA regulates the characteristics, operation and qualification of personnel of plasma collection centers. According to FDA rules, a donor of plasma can donate plasma up to twice a week. Failure to comply with FDA regulations, or state or local regulations, may ultimately result in the forced closure of a collection center or monetary fines or both, depending on the issues involved.

U.S. and European regulatory authorities impose stringent requirements to avoid the transmission of blood-borne diseases. Each donation is typically tested for the following infections: hepatitis A, hepatitis B, hepatitis C, parvovirus B19 and HIV. Then it is sent to a fractionator, where it undergoes additional viral marker testing as well as nucleic acid testing in the production environment. Thereafter, it is broken down into its constituent parts, or "fractions". "Bulk" fractions are further refined into final products through various purification processes, formulation and aseptic filling.

Entry into the plasma derivatives manufacturing business requires an understanding of the operationally complex nature of the business, which requires a highly skilled workforce with specialized know-how; significant intellectual property, including trade secrets relating to purification of products and pathogen safety; the need to develop recognized and trusted brands as well as sales, marketing and distribution infrastructures and relationships; and the ability to comply with extensive regulation by the FDA and comparable authorities worldwide. Additionally, the construction and maintenance, including regular improvements necessitated by evolving standards of cGMP, of production facilities requires extensive capital expenditures and may involve long lead times to obtain necessary governmental approval. Further, unlike small molecule pharmaceutical products, which are often subject to patent expirations on a defined date, plasma-derived protein therapies are usually protected through intellectual property relating to process, including trade secrets, which may not have a scheduled expiration. New entrants may, however, develop and market competing products by subcontracting portions of the manufacturing process, such as fractionation or purification, from existing plasma derivative manufacturers. Also, existing fractionators with operations in one region are increasingly entering other regional areas. In addition, new competitors in the United States would need to secure an adequate supply of U.S. plasma.

Principal Plasma Derivative Products

Collected plasma, whether source or recovered, is fractionated to isolate component proteins, which are then purified. The fractionation occurs in tanks at near freezing temperatures to maintain the integrity of the proteins. The three largest selling plasma proteins, which together constituted approximately 67% of plasma-derived product sales in the world in 2017 were:

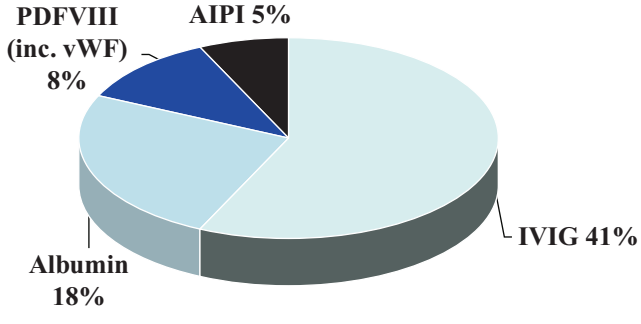
- *IVIG* is the part of the plasma that contains antibodies. IVIG assists in the treatment of primary and secondary immunological deficiencies, ITP, Guillain-Barré syndrome, Kawasaki disease, Allogeneic bone marrow transplant, and CIDP. In addition, physicians prescribe IVIG for a variety of other

autoimmune diseases, even though these uses are not described in the product's labeling and differ from those tested in clinical studies and approved by the FDA or similar regulatory authorities in other countries. These unapproved, or "off-label", uses are common across medical specialties, and physicians may believe such off-label uses constitute the preferred standard of care or treatment of last resort for many patients in varied circumstances. IVIG is also currently being investigated for use in the treatment of neurological conditions. Industry participants believe that, because IVIG is a complex mixture of antibody molecules, it is unlikely that a recombinant (or synthetic) alternative will be developed within the foreseeable future. IVIG had global sales of $9.4 billion in 2017, which represented 40.7% of the total plasma derivatives sales in that year (excluding recombinant proteins). IVIG sales experienced significant growth in recent years driven by improving usages, physician awareness and a strong reimbursement environment, and it now represents the largest plasma-derived product by sales value. It is one of the key growth drivers of the industry largely due to the increasing number of medical conditions for which IVIG is used;

- *Factor VIII* is a blood coagulation factor which ensures that blood coagulates correctly after hemorrhage. Persons born with Factor VIII deficit or who acquire this deficit over time through the formation of antibodies that inactivate it, require administration of Factor VIII in determined situations (before surgery or after injury or serious hemorrhage). Factor VIII is also often used for the treatment of hemophilia A, a disease that is suffered by one out of every 10,000 men (women are not susceptible to this disease). Factor VIII used in these cases is either extracted from human plasma or is genetically modified into a recombinant substitute from mouse or hamster cells. Recombinant products account for most sales in the Factor VIII market. In 2017, worldwide plasma-derived Factor VIII and von Willebrand factor annual sales were approximately $1.9 billion, comprising 8.3% of total plasma derivatives sales. Plasma-derived Factor VIII and von Willebrand factor had a compound annual growth rate of 4.5% from 2005 to 2017. Growth in Factor VIII is being driven by increased patient identification and treatment in developing countries of hemophilia A and inhibitors. In 2016, the Survey of Inhibitors in Plasma-Products Exposed Toddlers (SIPPET) results were published in the British Journal of Medicine, showing that treatment with recombinant FVIII is associated with an 87% higher incidence of inhibitors than treatment with plasma-derived FVIII. According to the principal investigators, the study may have implications in the choice of products for treatment of patients with severe hemophilia A. The current per capita Factor VIII utilization is significantly higher in the United States and the European Union than in developing countries; and
- *Albumin* is the most commonly found protein in plasma and represents the biggest product by volume but has low unitary prices. One of albumin's main functions is to carry and store a wide variety of small molecules such as bilirubin, cortisol, sex hormones, free fatty acids and some medicines. Albumin is used in the treatment of burns, severe hemorrhage, sepsis, hemodialysis patients with hypotension, nephritic syndrome, necrotizing pancreatitis and Cirrhosis, among others. Biotechnology companies also use high-purity albumin as a stabilizer for their products. Clinical trials are currently underway for new applications for this product, including, among others, for the treatment of stroke and liver Cirrhosis. Albumin has global sales of $4.1 billion in 2017, comprising 17.6% of the total plasma derivatives industry. According to the MRB, the demand for albumin had a compound annual growth rate from 2005 to 2017 of 13.5% and is projected to continue to grow moderately over the next few years.

Plasma Derivative Worldwide Sales by Category

The following chart presents a breakdown of global sales by plasma derivative products in 2017*:

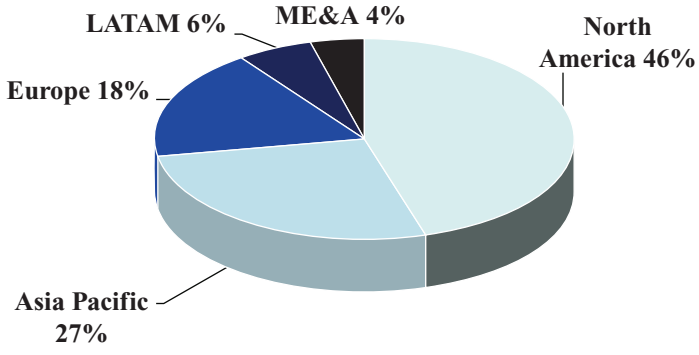


* Source: *MRB, Secondary Official data and Company estimates*

Plasma-Derived Products Sales by Geographic Region

Due to the cost of plasma-derived therapies, the majority of plasma sales are derived from the more economically developed regions in the world. Compared to the United States and Canada, where the industry is open, though highly regulated, Europe is characterized by local fractionators, considerable government control and divergent health care systems.

The following chart presents a breakdown of 2017 global sales for plasma derivatives by region*:



* Source: *MRB, Secondary Official data and Company estimates*

Historical Market Growth of Plasma-Derived Products

- According to the MRB, worldwide sales for IVIG have grown at a 10.0% compound annual rate between 2005 and 2017. This growth has been driven by increased evidence that IVIG is effective in treating a broader universe of ailments than previously considered, mainly neurological indications and increased incidence of acquired autoimmune and other ailments due to an increase in life expectancy. In particular, the following factors have contributed to the growth in IVIG demand:
  - Growing use in CIDP and other neurological diseases;
  - Increase in number of patients diagnosed with Primary Immunodeficiency (PID) that require lifetime treatments. Thirty U.S. states have adopted the requirement to detect inherited antibody deficiencies at birth. This may contribute to the continued high demand of immunoglobulin in this country; and
  - Positive perception by patients and the medical community of the efficacy and safety of IVIG.
- *Factor VIII.* According to the MRB, the worldwide sales of plasma-derived Factor VIII, including von Willebrand factor sales, have grown at a 4.5% compound annual rate between 2005 and 2017, and we believe that demand growth will continue. The SIPPET results, published in the British Journal of Medicine, show that treatment with recombinant FVIII is associated with an 87% higher incidence of inhibitors than treatment with plasma-derived FVIII, and may have implication in the choice of products for treatment of patients with severe hemophilia A, according to the principal investigators of the study. The U.S. Factor VIII market is supplied primarily by recombinant products. While Factor VIII continues to be used for the treatment of hemophilia A, we believe that continued plasma-derived Factor VIII growth worldwide will be driven by the following therapeutic indications:
  - *Treatment of von Willebrand disease.* The treatment of von Willebrand disease requires a Factor VIII product containing von Willebrand factor. Von Willebrand factor is not present in recombinant and monoclonal Factor VIII products;
  - *Immune Tolerance Therapy, or ITT.* Plasma-derived ITT is used principally as a second attempt at treatment when an initial course of recombinant ITT has failed. The daily administration of a high dose of either recombinant or plasma-derived Factor VIII for six months to a year is an increasingly popular treatment to combat inhibitors, which are substances that restrict the activity of Factor VIII. Doses in the second attempt at ITT tend to be significantly higher than in the initial course of treatment; and
  - *Treatment of Hemophilia A:* in recent years, emerging markets have purchased increased quantities. This is partly attributed to the efforts of the hemophilia patient associations that have lobbied governments.

- *Albumin.* According to the MRB, the worldwide sales demand for albumin has grown at a 13.5% compound annual rate between 2005 and 2017. Albumin demand in China has increased significantly from 2012, as health care services have continued to improve as a result of China's economic expansion fostering that growth. Demand for albumin has benefited from the FDA recommendation in 2013 against the use of hetastarch products on the basis of higher mortality risks. In the past, albumin growth had been impacted by the competition from less expensive, non-plasma-based colloids such as hetastarch.
- *Alpha-1 Proteinase Inhibitor.* According to the MRB, the worldwide sales demand for alpha-1 has grown at a 11.6% compound annual rate between 2005 and 2017. This significant increase in sales is driven by increased awareness among physicians of the alpha-1 Deficiency and improved diagnostic methods. According to the Alpha-One Foundation, one of the U.S. patients' organizations, less than 10% of those believed to have alpha-1 antitrypsin deficiency have been diagnosed, and it often takes an average of three doctors and seven years from the time of the first symptoms until an accurate diagnosis is made. Although the condition was described as early as in 1963, no specific treatment was available until the FDA approved Bayer's (now Grifols) "Prolastin" in December 1987.

Production of Plasma-Derived Products (Fractionation)

Three principal techniques are used to separate proteins into bulk fractions: the Cohn, Kistler-Nitschmann and Chromatography techniques.

- *Cohn.* Cohn, the most widely employed technique and the one utilized by us, subjects plasma to varying conditions of alcohol concentration, pH level and temperature to separate specific protein fractions from the plasma. The fractions are then collected using centrifugation or filtration. Following fractionation, the protein pastes are purified using steps such as solvent detergent treatment, caprylate incubation, column chromatography, and various methods of filtration.
- *Kistler-Nitschmann.* Kistler-Nitschmann is derived from the Cohn process and is often used in smaller fractionation facilities. This technique produces a limited product range, consisting of primarily immunoglobulins and albumin.
- *Chromatography.* Chromatography separates plasma proteins by specifically targeting the unique characteristics of each protein, which include: molecular size, using gel filtration; charge, using ion exchange chromatography; and known reactions with specific molecules, using affinity chromatography. Chromatography has higher product purity and superior product yields compared to the Cohn technique. However, regulatory hurdles, including the approval process for the procedure and the type of production facility required, have made the cost of switching to chromatography very expensive. As a result, few plasma fractionators have adopted this technique for fractionation, although many use it for purification. Once the plasma has been broken down into bulk fractions using one of these separation techniques, each fraction undergoes a series of production steps including purification, filling, freeze-drying (for those products requiring lyophilisation), packaging and distribution. Purification involves the further isolation of the fraction, as well as viral removal/inactivation steps, using a variety of technologies. The specific procedures used differentiate the end product and are generally proprietary to each fractionator.

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Plasma Supply

Plasma-derived product manufacturers secure human plasma in the United States from either third-party supply contracts (e.g., with a blood bank or with an independent plasma collection company) or from vertically integrated plasma collection centers. Historically, several of the largest global fractionators relied on smaller, independently owned U.S. source plasma collection companies to supply a portion of their plasma supply. Over time, fractionators chose to vertically integrate and acquire many of these suppliers. Currently, the three largest global fractionators are either fully integrated or have a significant percent of their total plasma collection internalized as a result of vertical integration.

We believe the growth in U.S. source plasma collections over the past several years has been higher than in other geographic areas. Such belief is based on our view that the growth of source plasma collection in the United States is primarily due to (i) the desire of fractionators to have the flexibility to export U.S. source plasma for the manufacture of products outside the United States, (ii) the favorable collection environment for source plasma centers in the United States, and (iii) the decreasing availability of recovered plasma worldwide.

Market estimates continue to point to new growth in U.S. source plasma, as new centers are developed in the United States and individual plasma center productivity improves. Despite the growth in U.S. source plasma supply, a continued increase in demand for plasma products in recent years has stimulated the industry to add new plasma collection centers to meet the increased need for source plasma.

China has grown to become a major source of plasma collection over past several years and is one of the fastest growing regions in the blood plasma industry. Its plasma procurement volumes have grown at a compound annual growth rate of 11.6% from 2013 to 2018 to 8.4 million liters. It now has 245 centers collection centers versus 848 collection centers outside of China. China has strict rules governing blood donation and does not allow imports of most blood-derived products except for Albumin. With the top players increasing their footprint in China, volumes are set to increase in the coming years, however this is unlikely to keep up with internal demand which is likely to result in increased imports of Albumin.

We believe that worldwide plasma collection is increasing and will continue to increase in future years, primarily driven by increased plasma collection in the United States.

Fractionation and Purification Capacity

Currently, production capacity may be limited by fractionation capacity or purification capacity. We, along with certain of our competitors, have announced plans to invest in the development of additional fractionation and purification capacity.

Manufacturing and Sale of Plasma Derivative Products

The manufacture and sale of plasma derivative products is heavily regulated. Manufacturing facilities and processes must be licensed by the FDA to manufacture medicinal products to be sold in the United States. Likewise, manufacturing facilities and products are also subject to strict European regulations to manufacture medicines intended for distribution in the European Union.

The plasma derivative product, like medicinal products, is also subject to prior licensing by the competent authorities of the jurisdiction where the product is to be marketed and sold. The licensing process generally requires the applicant to conduct clinical trials and submit information certifying the safety, efficacy and quality of the product. The requirements, formalities and timetables for the registration process generally vary from jurisdiction to jurisdiction.

In the European Union, the licensing requirements of the different member countries have been largely unified for pharmaceutical products. However, in the area of biological products this trend has been slower. Today, mutual recognition for cGMP inspections and licensing procedures through mutual recognition or centralized procedure at the EMA are in place.

Historically, manufacturers of plasma-derived products sought to distribute their finished product through the same distribution channels as pharmaceuticals, typically through wholesalers, which purchased products at fixed prices from the manufacturers, and re-sold them at contract prices. The plasma therapeutics market, however, has evolved from wholesalers to highly specialized plasma distributors, including:

- GPOs, which are umbrella buying groups representing inpatient and outpatient hospitals and non-acute members who benefit through consolidated supply contracts. GPOs do not purchase products directly, rather, they select authorized distributors which purchase inventory and handle all product logistics for their members;
- Wholesalers/Distributors either provide product directly to, or enter into distribution agreements with, hospitals, GPOs, and physician offices. The distributor is generally paid service fees for "encumbered" products on a GPO contract, or they purchase "unencumbered" products directly from manufacturers which are not part of a GPO contract;

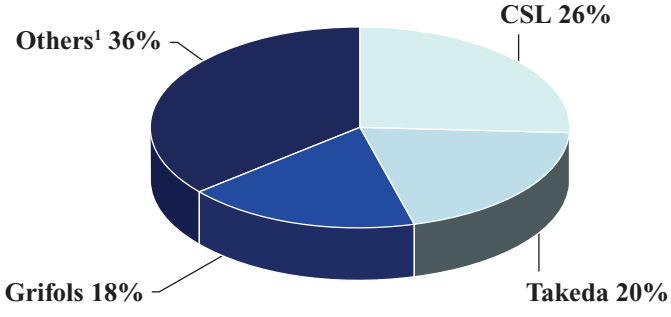
- Homecare and specialty pharmacy providers are a growing segment which provides patient treatment in the home, either through self-medication or with the assistance of a nurse. These providers either purchase products directly from manufacturers or through GPOs; and
- Manufacturer Direct programs distribute products directly to a physician's office or a patient's home.

The distribution by product line and type are summarized as follows:

- According to the MRB, it is estimated that 40% of the IgG (includes both intravenous and subcutaneous—subcutaneous almost exclusively used in home care setting) sold in the United States in 2018 was purchased by hospitals for both inpatient and outpatient use through GPOs; infusion sites, including physician offices represented about 10% of IVIG volume; and homecare companies including those with specialty pharmacies represented 40% of the IVIG volume.
- A1PI is generally distributed by homecare companies and specialty pharmacies and administered by a nurse at home or at a hospital infusion suite;
- Albumin is generally used in surgical and trauma settings and is generally sold to hospital groups; and
- Clotting factors, such as Factor VIII, generally are self-administered by patients and are mainly channeled from manufacturers to patients through home care companies and similar agencies.

Competition Overview of the Plasma Derivatives Industry

Following a sector consolidation over the last 10-15 years, we estimated the three largest plasma product fractionators are Grifols, CSL and Shire (now Takeda), together representing 65% of the worldwide blood plasma derivatives market by sales as reported by the MRB in 2017 and based on our own estimates. We estimate that CSL Behring and Shire (now Takeda) have the largest shares of the global market, at 26% and 20% respectively, followed closely by Grifols at 18%. The remaining major competitors are estimated to account for less than 10% of market share each.



* Source: *MRB, Secondary Official data and Company estimates*

(1) Within others, the largest share belongs to Octapharma with 8%

The Hospital Pharmacy Sector

Our "Hospital division" operates in the hospital pharmacy sector. In order to be marketed and sold, the intravenous therapy and the entire products' portfolio sold by the Hospital division must comply with local regulations that generally require that these products be shown to be safe and effective. Competition in the intravenous therapy market is primarily based on price and quality of service. Since freight costs can affect profitability significantly, sales of intravenous therapy products, such as parenteral solutions (fluid therapy), are generally made to markets that are relatively near manufacturing facilities.

The Spanish and Portuguese markets for intravenous therapy have experienced stable growth. According to IMS Health, a leading provider of information to the pharmaceutical and healthcare industries, the intravenous therapy market in Spain was €82 million in 2015. According to AENE, the Spanish market for enteral nutrition products was €259.5 million in 2016.

The In Vitro Diagnostic Market

We also operate a "Diagnostic division", which includes the Novartis Diagnostic Business. The In Vitro Diagnostics, or IVD, is a $56.0 billion market according to a 2014 Boston Biomedical Consultants report; within IVD we specialize in Transfusion Medicine which is a $4.0 billion market, according to our own

research and peer data. The two most important segments of Transfusion Medicine in which we sell our diagnostic products are the following:

- immunology, which is the study of the detection of pathogenic agents and other antigens, accounting for 43%, or an estimated $1.7 billion, of the Transfusion Medicine market, where we are present with Nucleic Acid Testing (NAT) and Serology products and
- immunohematology, which is the diagnosis of blood type and the screening of antibodies, accounting for 33%, or an estimated $1.3 billion, of the Transfusion Medicine market;

Within the IVD market, we are also present in the Specialty Diagnostics segment with hemostasis, which is the analysis of processes related to blood coagulation, autoimmunity, which is the testing of autoimmune diseases and the monitoring of drug levels and immunogenicity, and infectious diseases testing products. The market size of our focus areas within Specialty Diagnostics accounts for an estimated $11.7 billion.

The NAT market has been rapidly growing as it allows for earlier detection following an infection, as antibodies can take a significant amount of time to develop (up to 3 months for HIV). This method differs from other methods of blood testing, in that it detects genetic material (DNA/RNA) rather than antigens (proteins from a virus) or antibodies (proteins from immune response to virus/bacteria).

The diagnostic products market encompasses mainly products related to the analytical testing of biological samples to determine the presence and characteristics of pathogens, and monitor therapies and blood transfusion safety. The testing is generally performed in laboratories, and it may also be carried out in other professional health settings or by consumers of diagnostic products at home.

The in vitro diagnostic market has grown significantly over the past few years as a result of the introduction of new technologies, increasing test volumes and favorable pricing environments. Significant technological progress and automation have resulted in specific and precise diagnoses. This improvement in diagnosis translates into a better application and monitoring of therapies and an improvement in disease prevention.

In order to be marketed and sold, diagnostic products must comply with local regulations that generally require that these products be shown to be safe and effective. These are products that, even though they are not pharmaceutical, are in contact with the human body or its fluids. Competition for diagnostic products is based on reputation for quality and safety, the particular features of the product and, to a lesser extent, price. In the immunohematology market, we see increased competitiveness with new product launches and new local market entries.

The Hospital Pharmacy Sector

Our "Hospital division" operates in the hospital pharmacy sector. In order to be marketed and sold, the intravenous therapy and the entire products' portfolio sold by the Hospital division must comply with local regulations that generally require that these products be shown to be safe and effective. Competition in the intravenous therapy market is primarily based on price and quality of service. Since freight costs can affect profitability significantly, sales of intravenous therapy products, such as parenteral solutions (fluid therapy), are generally made to markets that are relatively near manufacturing facilities.

Government Regulation

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, approval, manufacturing, labeling, post-approval monitoring and reporting, packaging, promotion, storage, advertising, distribution, marketing and export and import of healthcare products such as those we collect, manufacture, sell or are currently developing. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. The following is a summary of the overall regulatory landscape for our business.

United States Government Regulation

In the United States, the FDA regulates drugs, biologics, plasma collection and medical devices under the FDCA and as applicable the Public Health Service Act, or PHS Act, and their implementing regulations. Failure to comply with the applicable FDA requirements at any time during the product-development process, approval process or after approval may result in administrative or judicial sanctions. These sanctions could include, as applicable, the FDA's imposition of a clinical hold on trials for drugs, devices or biologics, refusal to approve pending applications, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties or criminal prosecution or any combination of these sanctions. Any agency or judicial enforcement action could have a material adverse effect on us.

The BLA (Biologics License Application) Approval Process

Drugs that are also biological products, such as our plasma-derivative products IVIG, A1PI, Factor VIII and albumin, and also certain in vitro diagnostic products associated with testing blood and blood components, must also satisfy the requirements of the PHS Act and its implementing regulations. In order for a biological drug product, or for these in vitro diagnostic tests, to be legally marketed in the United States, the product must have a BLA approved by the FDA.

The steps for obtaining FDA approval of a BLA to market a biological product in the United States include the following:

- completion of preclinical laboratory tests, animal studies and formulation studies under the FDA's good laboratory practices regulations;
- submission to the FDA of an Investigational New Drug Application, or IND, for human clinical testing, which must become effective before human clinical trials may begin and which must include approval by an independent IRB at each clinical site before the trials may be initiated;
- performance of adequate and well controlled clinical trials in accordance with "Good Clinical Practice", as set forth by the FDA, to establish the safety and efficacy of the product for each indication;
- submission to the FDA of a BLA, which contains detailed information about the chemistry, manufacturing and controls for the product, reports of the outcomes and full data sets of the clinical trials and proposed labeling and packaging for the product;
- satisfactory review of the contents of the BLA by the FDA, including the satisfactory resolution of any questions raised during the review;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP to assure that the facilities, methods and controls are adequate to ensure the product's identity, strength, quality and purity; and
- FDA approval of the BLA, including agreement on post-marketing commitments, if applicable.

Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, to the FDA as part of the IND. Some preclinical testing may continue after the IND is submitted. The IND must become effective before human clinical trials may

begin. An IND will automatically become effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about issues such as the conduct of the trials or supporting preclinical data as outlined in the IND. In that case, the IND sponsor and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. In other words, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators. Clinical trials are conducted under strict requirements to ensure the protection of human subjects participating in the trial and protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB (usually, but not necessarily specific to each study site) must approve the protocol, subject consent form and any amendments. All research subjects must be informed, among other things, about the risks and benefits of the investigational product and provide their informed consent in writing.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined.

Phase I trials usually involve the initial introduction of the investigational drug into a small group of healthy volunteers (e.g., 10 to 20 volunteers) to evaluate the product's safety, dosage tolerance and pharmacokinetics and, if possible, to gain an early indication of its effectiveness.

Phase II trials usually involve controlled trials in a larger but limited patient population (e.g., a few hundred) to:

- evaluate dosage tolerance and appropriate dosage;
- identify possible adverse effects and safety risks; and
- provide a preliminary evaluation of the efficacy of the drug for specific indications.

Phase III trials usually further evaluate clinical efficacy and test further for safety in an expanded patient population (e.g., several hundred to several thousand patients). Phase III trials usually involve comparison with placebo, standard treatments or other active comparators. Usually two well controlled large Phase III or pivotal trials demonstrating safety and efficacy are required. These trials are intended to establish the overall risk-benefit profile of the product and provide an adequate basis for physician labeling. Phase III trials are usually larger, more time consuming, more complex and more costly than Phase I and Phase II trials. Since most of our products are aimed at very small populations so that it is not always possible to conduct two large studies, regulators may accept one study on a smaller number of patients than would typically be required for pharmaceutical products in general, provided the data is sufficiently robust.

Phase I, Phase II and Phase III testing may not be completed successfully within any specified period, if at all. Furthermore, we or the FDA may suspend or terminate clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk, have experienced a serious and unexpected adverse event, or that continued use in an investigational setting may be unethical. Similarly, an IRB can suspend or terminate approval of research if the research is not being conducted in accordance with the IRB's requirements or if the research has been associated with unexpected serious harm to patients.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data and clinical trial investigators, including reports regarding adverse events and safety issues.

Assuming successful completion of the required clinical testing, the results of the preclinical studies and of the clinical trials, together with other detailed information, including information on the chemistry, manufacture and composition of the product, are submitted to the FDA in the form of a BLA requesting approval to market the product for one or more indications. Under the Pediatric Research Equity Act of 2003, BLAs, or supplements to BLAs, must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, the Pediatric Research Equity Act of 2003 does not apply to any drug for an indication for which orphan designation has been granted. The testing and approval processes require substantial time and effort and

there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all. In most cases, the BLA must be accompanied by a substantial user fee.

The FDA will initially review the BLA for completeness before it accepts the BLA for filing. After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether a product is safe and effective for its intended use and whether the product is being manufactured in accordance with cGMP to assure and preserve the product's identity, strength, quality, purity and potency. The FDA may refer applications for novel biological products or biological products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation, and recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of the advisory committee, but it considers such recommendations carefully when making decisions.

Under the Pediatric Research Equity Act of 2003, BLAs, or supplements to BLAs, must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers. Unless otherwise required by regulation, the Pediatric Research Equity Act of 2003 does not apply to any drug for an indication for which orphan designation has been granted.

Before approving a BLA, the FDA generally will inspect the facility or the facilities at which the product is manufactured. The FDA will not approve the product if it finds that the facility does not appear to be in cGMP compliance. If the FDA determines the application, manufacturing process or manufacturing facilities are not acceptable, it will either disapprove the application or issue a complete response letter in which it will outline the deficiencies in the BLA and provide the applicant an opportunity to meet with FDA representatives and subsequently to submit additional information or data to address the deficiencies. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

Further, the Healthcare Reform Law introduced a new abbreviated regulatory approval pathway for biological products found to be "biosimilars" or "interchangeable" with a biological "reference product" previously licensed under a BLA. This abbreviated approval pathway is intended to permit a biosimilar to come to market more quickly and less expensively by relying to some extent on the data generated by the reference product's sponsor, and the FDA's previous review and approval of the reference product. The law provides that no biosimilar application may be accepted for FDA review until 4 years after the date the reference product was first licensed by the FDA, and that the FDA may not make approval of an application effective until 12 years after the reference product was first licensed. Once approved, biosimilars likely would compete with, and in some circumstances may be deemed under applicable laws to be "interchangeable with", the previously approved reference product The extent to which a biosimilar, once approved, will be substituted for any of our products, in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. The FDA is actively seeking to encourage the entry of biosimilars into the marketplace, including issuing, in July 2018, its Biosimilar Action Plan, intended to enhance the speed of the biosimilar development and approval processes.

The testing and approval processes require substantial time, effort and financial resources, and each process may take several years to complete. Data obtained from clinical activities is not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing our products. The FDA may limit the indications for use or place other conditions on any approvals that could restrict the commercial application of the products.

Post-approval Requirements

After regulatory approval of a product is obtained, we are required to comply with a number of post-approval requirements. For example, as a condition of approval of a BLA, the FDA may require post-marketing testing and surveillance to monitor the product's safety or efficacy. In addition, holders of an approved BLA are required to keep extensive records, to report certain adverse reactions and production problems to the FDA, to provide updated safety and efficacy information and to comply with requirements concerning advertising and promotional labeling for their products. Also, quality control and

manufacturing procedures must continue to conform to cGMP regulations and practices, as well as the manufacturing conditions of approval set forth in the BLA. The FDA periodically inspects manufacturing facilities to assess compliance with cGMP, which imposes certain procedural, substantive and recordkeeping requirements. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain compliance with cGMP and other aspects of regulatory compliance.

Future FDA inspections may identify compliance issues at our facilities or at the facilities of our third-party suppliers that may disrupt production or distribution, or require substantial resources to correct and prevent recurrence of any deficiencies, and could result in fines or penalties by regulatory authorities. In addition, discovery of problems with a product or the failure to comply with applicable requirements may result in restrictions on a product, manufacturer or holder of an approved BLA, including withdrawal or recall of the product from the market or other voluntary, FDA-initiated or judicial action that could delay or prohibit further marketing. Newly discovered or developed safety or efficacy data may require changes to a product's approved labeling, including the addition of new warnings and contraindications. The Healthcare Reform Law established and provided significant funding for a Patient-Centered Outcomes Research Institute to coordinate and fund Comparative Effectiveness Research. Also, new government requirements, including those resulting from new legislation, may be established that could delay or prevent regulatory approval of our products under development.

Orphan Drug Designation

The FDA may grant orphan drug designation to drugs intended to treat a "rare disease or condition" that affects fewer than 200,000 individuals in the United States, or that affects more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available in the United States a drug for such a disease or condition will be recovered from sales in the United States for that drug. Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. Orphan drug designation can provide opportunities for grant funding towards clinical trial costs, tax advantages and FDA user fee exemptions. In addition, if a product that has an orphan drug designation subsequently receives the first FDA approval for the indication for which it has such designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity or a meaningfully different mode of administration. Competitors may receive approval of different drugs or biologics for the indications for which the orphan product has exclusivity. However, if a company with orphan drug exclusivity is not able to supply the market, the FDA could allow another company with the same drug a license to market for said indication. The FDA granted Gamunex® IVIG orphan drug status, which provided marketing exclusivity for the CIDP indication in the United States through September 2015. Gamunex® IVIG was the first IVIG product approved for CIDP in the United States.

Fast Track Designation

The FDA's fast track programs, one of which is fast track designation, are designed to facilitate the development and review of new drugs that are intended to treat serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs for the conditions. Fast track designation applies to a combination of the product and the specific indication for which it is being studied. Thus, it is the development program for a specific drug for a specific indication that receives fast track designation. The sponsor of a product designated as being in a fast track drug development program may engage in close early communication with the FDA, including through timely meetings and feedback on clinical trials. Products in fast track drug development programs also may receive FDA priority review or accelerated approval; in other words, the review cycle has a six-month review clock instead of a ten- or 12-month review clock). Sponsors may also be able to submit completed portions of an application before the entire application is completed; however, the review clock will not officially begin until the entire completed BLA is submitted to and filed by the FDA. The FDA may notify a sponsor that its program is no longer classified as a fast track development program if the fast track designation is no longer supported by emerging data, the designated drug development program is no longer being pursued, or another product that meets the unmet medical need for the same indication is approved first. We do not currently have any products on fast track.

Plasma Collection

The FDA requires a licensing and certification process for each plasma collection center prior to opening and conducts periodic inspections of facilities and processes. Many states also regulate plasma collection, imposing similar obligations and additional inspections and audits. Collection centers are subject to periodic inspections by regulatory authorities, which if noncompliance is alleged, may result in fines, citations, the temporary closing of the centers, loss or suspension of licenses or recall of finished products.

Diagnostic Devices

Certain of our products are regulated as medical devices, which are typically subject to clearance for commercialization in the United States, based on a pre-market notification to the FDA demonstrating the device to be marketed is safe and effective by proving substantial equivalence to a legally marketed device (predicate device). The manufacturers of medical devices must register their establishments with the FDA, and the production of the devices must accord with applicable current good manufacturing practices and quality system regulations. With respect to the manufacture and sale of immunoassay antigens and antibodies to screen human donated blood and blood products, these products are manufactured and sold under a BLA issued by the FDA, and are subject to the heightened regulatory oversight associated with biological products.

Drug Supply Chain Security Act

The federal Drug Quality and Security Act of 2013 brought about significant changes with respect to pharmaceutical supply chain requirements and pre-empts state law. Title II of this measure, known as the Drug Supply Chain Security Act, or the DSCSA, is being phased in over 10 years, and is intended to build a national electronic, interoperable system to identify and trace certain prescription drugs as they are distributed in the United States, including certain of our products. The law's track and trace requirements applicable to manufacturers, wholesalers, repackagers and dispensers (e.g., pharmacies) of prescription drugs began to take effect in January 2015 and will continue to be implemented. The DSCSA product tracing requirements replaced the former FDA drug pedigree requirements and pre-empt state requirements that are inconsistent with, more stringent than, or in addition to, the DSCSA requirements. The DSCSA also establishes certain requirements for the licensing and operation of prescription drug wholesalers and third party logistics providers, or 3PLs, and includes the creation of national wholesaler and 3PL licenses in cases where states do not license such entities. The DSCSA requires that wholesalers and 3PLs distribute drugs in accordance with certain standards regarding the recordkeeping, storage and handling of prescription drugs. According to FDA guidance, states are pre-empted from imposing any licensing requirements that are inconsistent with, less stringent than, directly related to, or covered by the standards established by federal law in this area. Current state licensing requirements will likely remain in effect until the FDA issues new regulations as directed by the DSCSA. We believe that we are substantially compliant with applicable DSCSA requirements.

Anti-fraud and Abuse Regulation

Since we supply products and services that are reimbursed by U.S. federally funded programs such as Medicare and Medicaid, our activities are also subject to regulation by CMS and enforcement by HHS OIG. The Anti-Kickback Law prohibits providers and others from directly or indirectly soliciting, receiving, offering or paying any remuneration with the intent of generating referrals or orders for services or items covered by a government health care program. Many states have similar laws. Courts have interpreted this law very broadly, including by holding that a violation has occurred if even one purpose of the remuneration is to generate referrals, even if there are other lawful purposes. There are statutory and regulatory exceptions, or safe harbors, that outline arrangements that are deemed lawful. However, the fact that an arrangement does not fall within a safe harbor does not necessarily render the conduct illegal under the Anti-Kickback Law. In sum, even legitimate business arrangements between the companies and referral sources could lead to scrutiny by government enforcement agencies and require extensive company resources to respond to government investigations. Also, certain business practices, such as payment of consulting fees to healthcare providers, sponsorship of educational or research grants, charitable donations, interactions with healthcare providers that prescribe products for uses not approved by the FDA and financial support for continuing medical education programs, must be conducted within narrowly prescribed and controlled limits to avoid any possibility of wrongfully influencing healthcare providers to prescribe or purchase particular products or as a reward for past prescribing. Violations of the Anti-Kickback Law can result in substantial legal penalties, including, among others, civil and criminal

penalties or exclusion from participation in federal health care programs, including Medicare and Medicaid. Notably, effective October 24, 2018, a new federal anti-kickback law (the Eliminating Kickbacks in Recovery Act of 2018) enacted in connection with broader addiction services legislation, may impose criminal penalties for kickbacks involving clinical laboratory services regardless of whether the services at issue involved addiction services, and regardless of whether the services were reimbursed by a federal health care program or by a commercial health insurer. The Healthcare Reform Law strengthened provisions of the Anti-Kickback Law, clarifying that a federal Anti-Kickback Law violation can be a basis for federal FCA liability.

The FCA is violated by any entity that "presents or causes to be presented" knowingly false claims for payment to the federal government. In addition, the Healthcare Reform Law amended the FCA to create a cause of action against any person who knowingly makes a false statement material to an obligation to pay money to the government or knowingly conceals or improperly decreases an obligation to pay or transmit money or property to the government. For the purposes of these recent amendments, an "obligation" includes an identified overpayment, which is defined broadly to include "any funds that a person receives or retains under Medicare and Medicaid to which the person, after applicable reconciliation, is not entitled ...".

Significant enforcement activity has been the result of actions brought by relators, who file complaints in the name of the United States (and, if applicable, particular states) under the FCA or equivalent state statutes. "False claims" can result not only from noncompliance with the express requirements of applicable governmental reimbursement programs, such as Medicaid or Medicare, but also from noncompliance with other laws, such as the Anti-Kickback Law (which was explicitly confirmed in the Healthcare Reform Law), or laws that require quality care in service delivery. The qui tam and whistleblower provisions of the FCA allow private individuals to bring actions on behalf of the government alleging that the government was defrauded, with tremendous potential financial gain (up to 30% of the government's recovery plus legal fees) to private citizens who prevail. When a private party brings a whistleblower action under the FCA, the qui tam plaintiffs file the complaint under seal and serve the complaint on the government only, with written disclosure of substantially all material evidence and information they possess. The government then uses the information provided by the qui tam plaintiff to investigate the claims and may elect to intervene in the case within 60 days of receiving the complaint, unless extended for good-cause. The defendant is not made aware of the lawsuit until the case is unsealed. Many states have enacted similar laws, and these state laws have their own penalties which may be in addition to federal FCA penalties. The bringing of any federal FCA action could require us to devote resources to investigate and defend the action. Violations of the FCA can result in treble damages, plus civil penalties of up to $22,363 per claim, as well as exclusion from federal health care programs and criminal penalties.

A Healthcare Reform Law provision, generally referred to as the PPS Act or Open Payments Program, has imposed new reporting and disclosure requirements for biologic, drug and device manufacturers with regard to payments or other transfers of value made to certain practitioners, such as physicians and teaching hospitals, and for such manufacturers and for group purchasing organizations, with regard to certain ownership interests held by physicians in the reporting entity. CMS publishes information from these reports on a publicly available website, including amounts transferred and health care provider identities. Under the PPS Act we are required to collect and report detailed information regarding certain financial relationships we have with covered health care providers, and we believe that we are substantially compliant with applicable PPS Act requirements. The PPS Act pre-empts similar state reporting laws, although we or our subsidiaries may also be required to report under certain state transparency laws that address circumstances not covered by the PPS Act, and some of these state laws are also ambiguous. We are also subject to foreign regulations requiring transparency of certain interactions between suppliers and their customers. While we believe we have substantially compliant programs and controls in place to comply with these reporting requirements, our compliance with these rules imposes additional costs on us.

European Community Government Regulation

In addition to regulations in the United States, we are subject to a variety of regulations in other jurisdictions governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of countries outside the United States before we can commence marketing that product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical

trials, product licensing, pricing and reimbursement vary greatly from country to country. Also, in addition to approval of final products, U.S. plasma centers collecting plasma for manufacture into products to be distributed in the European Union must also be approved by the competent European health authority.

Medicines can be authorized in the European Union by using either the centralized authorization procedure or national authorization procedures. The EMA is responsible for the centralized authorization procedure.

Centralized Authorization Procedure

The EMA is responsible for the centralized procedure, or Community authorization procedure, for human medicines. This procedure results in Community marketing authorization, the single marketing authorization that is valid across the European Union, as well as in the European Economic Area/ European Free Trade Association states Iceland, Liechtenstein and Norway.

The Community authorization procedure is compulsory for the following:

- medicines derived from biotechnology processes, such as genetic engineering;
- advanced-therapy medicines, such as gene-therapy, somatic cell-therapy or tissue-engineered medicines;
- medicinal products for human use containing a new active substance that did not receive Community marketing authorization when the Community authorization procedure was first implemented, for which the therapeutic indication is the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, autoimmune diseases and other immune dysfunctions or viral diseases; and
- officially designated orphan medicines (medicines for rare diseases).

The Community authorization procedure is optional for the following:

- products containing new active substances for indications other than the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, autoimmune diseases and other immune dysfunctions or viral diseases;
- products representing significant therapeutic, scientific or technical innovations; and
- products for which the granting of a Community marketing authorization would be in the interests of European Union public health.

Our blood derivative products are not subject to compulsory Community authorization, but it is an option for our new products. Flebogamma® DIF 50 mg/ml and 100 mg/ml and VeraSeal solutions for sealant were approved through the Community authorization procedure.

Applications through the Community authorization procedure are submitted directly to the EMA. Evaluation by the EMA's relevant scientific committee takes up to 210 days, at the end of which the committee adopts an opinion on whether the medicine should be marketed. This opinion is then transmitted to the European Commission, which has the ultimate authority for granting marketing authorizations in the European Union.

Once a Community marketing authorization has been granted, the holder of that authorization can begin to make the medicine available to patients and healthcare professionals in all European Union countries.

National Authorization Procedures

Each European Union member state has its own procedures for the authorization, within its own territory, of medicines that fall outside the scope of the Community authorization procedure. There are two possible routes available to companies for the authorization of such medicines in several countries simultaneously.

- Decentralized procedure. Using the decentralized procedure, companies may apply for simultaneous authorization in more than one European Union country of medicines that have not yet been authorized in any European Union country and that do not fall within the mandatory scope of the centralized procedure.
- Mutual-recognition procedure. In the mutual-recognition procedure, a medicine is first authorized in one European Union member state, in accordance with the national procedures of that country. Following such authorization, further marketing authorizations can be sought from other European

Union member states in a procedure whereby the countries concerned agree to recognize the validity of the original, national marketing authorization.

Our product Niuliva 250 I.U./ml was approved through the decentralized procedure. Our products Prolastina® 1000 mg/ml and Gamunex® 10% were approved through the mutual-recognition procedure. All our other products were approved pursuant to individual national procedures. We expect to use the mutual-recognition procedure if we want to extend our product licenses to other European countries in the future.

In some cases, disputes arising in these procedures can be referred to the EMA for arbitration as part of a "referral procedure".

Orphan Drug Designation

Applications for designation of orphan medicines are reviewed by the EMA through the Committee for Orphan Medicinal Products. The criteria for orphan designation are as follows:

- the medicinal product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting no more than five in 10,000 persons in the European Union at the time of submission of the designation application (prevalence criterion), or
- the medicinal product is intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition, and without incentives it is unlikely that the revenue after marketing of the medicinal product would cover the investment in its development, and
- either no satisfactory method of diagnosis, prevention or treatment of the condition concerned is authorized, or, if such method exists, the medicinal product will be of significant benefit to those affected by the condition.

Companies with an orphan designation for a medicinal product benefit from incentives such as the following:

- protocol assistance (scientific advice for orphan medicines during the product-development phase);
- direct access to centralized marketing authorization and ten-year marketing exclusivity;
- financial incentives (fee reductions or exemptions); and
- national incentives detailed in an inventory made available by the European Commission.

Since December 2011, orphan medicinal products are eligible for the following level of fee reductions:

- full (100%) reduction for small- and medium-sized enterprises, or SMEs, for protocol assistance and follow-up, full reduction for non-SME sponsors for pediatric-related assistance and 75% reduction for non-SME sponsors for non-pediatric assistance;
- To determine which companies are eligible for SME incentives, the EMA applies the definition of micro-, small- and medium-sized enterprises provided in the Commission of the European Communities' Commission Recommendation 2003/361/EC. To qualify for assistance, companies must be established in the European Economic Area, employ less than 250 employees and have an annual turnover of not more than €50 million or an annual balance sheet total of not more than €43 million;
- full reduction for pre-authorization inspections and 90% reduction for post-authorization inspections for small- and medium-sized enterprises;
- full reduction for SMEs for new applications for Community marketing authorization and 10% reduction for non-SME sponsors; and
- full reduction for post-authorization activities including annual fees only to small and medium sized enterprises in the first year after granting a marketing authorization.

We have EMA Orphan Drug Designations for the following two products:

- Alpha-1 proteinase inhibitor (for inhalation use) for the treatment of cystic fibrosis; and
- Alpha-1 proteinase inhibitor (for inhalation use) for the treatment of congenital alpha-1 antitrypsin deficiency.

Because each of these products is already authorized for a non-orphan indication in the EU, in order to obtain marketing authorization for any of the above-mentioned orphan indications, we would be required to apply for a separate marketing authorization through the Community authorization procedure for such indication, using a different proprietary name. It is not possible to extend the existing marketing authorization to cover the new orphan indication. Orphan and "non-orphan" indications cannot be covered by the same marketing authorization.

Canadian Regulatory Process

Authorization to Market

Therapeutic products can be marketed in Canada after they have been subject to a review to assess their safety, efficacy and quality. A New Drug Submission must be submitted to Health Canada for review, and a Notice of Compliance, or NOC, and/or a Drug Identification Number, or DIN, must be received by the sponsor prior to marketing a product in Canada. Responsibility for review of pharmaceutical drug products resides with Health Canada's Therapeutic Products Directorate, or TPD, while responsibility for review of biological products is under the Biologics, Radiopharmaceuticals and Genetic Therapies Directorate, or BGTD. An active DIN is required for any product being marketed in Canada. Our IVIG, A1PI, albumin and hyperimmune products are subject to these review and authorization processes.

Changes to Market Authorization

There are four classes of changes to existing market authorizations in Canada. Level 1 changes are considered "significantly different" and have the potential to impact safety, efficacy, quality or effectiveness of the product. These require the filing of a Supplemental New Drug Submission, and a NOC must be issued by Health Canada prior to implementation of the change. Level 2 changes are not considered "significant", but a "Notifiable Change" submission must be filed to Health Canada for review, and approval is provided via a "No Objection" letter to the sponsor. Level 3 changes have minimal potential to impact safety, quality or effectiveness and can be made without prior approval of Health Canada; a summary of these changes is reported to Health Canada with the sponsor's Annual Drug Notification. Level 4 changes are implemented without any notification to Health Canada, based on no expectation of risk.

Clinical Trials

A Clinical Trial Application, or CTA, must be submitted to Health Canada prior to conducting any study protocol that proposes the use of a new product, or the use of an existing product, where the indication, target population, route of administration or dosing differs from the current market authorization. The CTA should include summaries of preclinical and clinical studies conducted and (if applicable) chemistry, manufacturing and control data, and is submitted to either TPD (for drug products) or BGTD (for biological products) for review. The TPD or BGTD are responsible for assessing protection and safety of the participants as well as quality of the product; they will issue a "No Objection" letter to sponsors for studies deemed acceptable. Research ethics board approval for each trial is also required prior to conduct of the study.

Establishment Licensing

All establishments in Canada that are involved in the fabrication, packaging/labeling, testing, import, distribution or warehousing of drug products must have a current establishment license (once an establishment license is issued, an annual report must be submitted by April 1 of each year to maintain the effectiveness of that license). As an importer/distributor, part of the licensing requirements include demonstration that any foreign (non-Canadian) facilities involved in fabrication, packaging/labeling or testing of products imported/distributed under the license comply with cGMP.

Post-Approval Requirements

The Health Products and Food Branch Inspectorate of Health Canada periodically inspects licensed establishments in Canada to verify compliance with cGMP. Manufacturers and importers are required to monitor the safety and quality of their products and must report adverse reactions to the Marketed Health Products Directorate in accordance with a prescribed timeline and format.

Regulatory Process for Markets outside the United States, Canada and Europe

The majority of regulatory authorities in countries outside the United States, Canada and Europe require that a product first be approved by the FDA or European authority prior to granting the market authorization in their country. There are a limited number of countries (Bahamas, Bermuda, Guam, Oman and Qatar) that do not require further local product registration for products and they may be distributed based on the existing FDA approval.

In addition to requiring the submission of a license application containing documentation supporting the safety, efficacy and quality of the product, many countries require the submission of FDA Export Certificates for our products to provide assurance that such products can be legally marketed in the United States. The Certificate of Pharmaceutical Product, or CPP, and/or the Certificate to Foreign Government, or CFG, are issued by the FDA at the request of the manufacturer seeking licensing in the country outside the United States. The CPP conforms to the format established by the World Health Organization, or WHO, and is intended for use by the importing country when considering whether to license the product in question for sale in that country. The CFG serves to document that the product can be legally marketed in the United States and the manufacturer is in compliance with GMP. A limited number of regulatory authorities in countries outside United States, Canada and Europe conduct onsite inspections to verify GMP compliance. Failure to maintain and document GMP compliance could result in withdrawal of marketing authorization. In addition changes to manufacturing or testing procedures for the product require approval of the change in the United States prior to the submission of the variation to the registration in the international market. These changes may require approval in each market in order to maintain product distribution. Furthermore, any changes in the distributors supporting our export business could result in a loss of sales.

Pharmaceutical Pricing and Reimbursement

In the United States and other countries, sales of any products for which we receive regulatory approval for commercial sale will depend in part on the availability of reimbursement from third-party payors. Third-party payors include government health programs, managed care providers, private health insurers and other organizations. These third-party payors are increasingly challenging the price and examining the cost-effectiveness of medical products and services. In addition, significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Our products may not be considered cost-effective. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to realize an appropriate return on our investment in product development.

In the United States, our products are reimbursed or purchased under several government programs, including Medicaid, Medicare Parts B and D and the 340B/PHS program, and pursuant to our contract with the Department of Veterans Affairs. Medicaid is a joint state and federal government health plan that provides covered outpatient prescription drugs for low income individuals. Under Medicaid, drug manufacturers pay rebates to the states based on utilization data provided by the states. The rebate amount for most brand name drugs is the greater of 23.1% of the AMP per unit or the difference between the AMP and Best Price per unit and adjusted by the CPI-U, subject to certain exceptions (for example, for certain clotting factors, such as Factor VIII and Factor IX, of the rebate amount is the greater of 17.1% of the AMP per unit or the difference between the AMP and the Best Price per unit and adjusted by the CPI-U. For non-innovator multiple source (generic) drugs, the rebate percentage is equal to a minimum of 13.0% of AMP. The Healthcare Reform Law also extended this rebate obligation to prescription drugs covered by Medicaid managed care organizations.

In addition, the statutory definition of AMP changed in 2010 as a result of the Healthcare Reform Law. On January 21, 2016, CMS issued a final rule, effective on April 1, 2016, providing a regulatory definition of "AMP" along with other changes to the price reporting process. We believe our reporting meets the obligations contained in the final rule.

Medicare Part B reimburses providers for drugs provided in the outpatient setting based upon ASP. Beginning in 2005, the Medicare drug reimbursement methodology for physician and hospital outpatient schedules changed to ASP + 6%. This payment was based on a volume-weighted average of all brands under a common billing code. After changes in certain prior years, CMS increased the rate back to + 6% for 2013 and maintained the same rate for 2014 through 2019, except that effective January 1, 2018, a new CMS rule went into effect substantially cutting reimbursement paid to hospitals and other providers for certain outpatient drugs and biologicals, including certain of our products, if purchased by these providers under the 340B/PHS program. The reimbursement was decreased from ASP + 6% to ASP −22.5%.

However, on December 27, 2018, the Federal District Court for the District of Columbia issued an opinion finding that this reimbursement cut exceeded CMS's regulatory authority. No final remedy has yet resulted from this decision, and the case remains subject to appeal. The outcome of this reimbursement change on our business is uncertain, but it may decrease demand for our products and have an adverse effect on our business. We believe that we meet the requirements of the 340B/PHS program and are continuing to review and monitor these and other developments affecting the 340B/PHS program. In addition, under the Bipartisan Budget Act of 2013 and subsequent measures, Medicare is subject to a 2% reduction in federal spending, or "sequestration", including drugs reimbursed under Medicare, for federal fiscal years 2013 through 2025. The full ramifications of this sequestration for Medicare reimbursement are not yet clear, as Congressional action may reduce, eliminate or otherwise change this payment reduction.

Other pricing concerns in the United States include that in May 2018, President Trump released a drug "blueprint" including an array of policy ideas intended to lower drug prices and patient out-of-pocket drug costs, and federal administrative agencies have begun issuing proposed regulations to adopt various of these proposals. An area of focus are drugs reimbursed under Medicare Part B. The proposals include, for example, moving reimbursement for certain Medicare Part B drugs into Medicare Part D to make them subject to a variety of pricing negotiations, establishing an enhanced competitive acquisition program for Medicare Part B drugs, and instituting an "International Pricing Index" payment model that would link reimbursement for certain Medicare Part B drugs to pricing levels for such drugs found in other countries. Other proposals support the marketing of biosimilars, involve lowering standards for demonstrating biosimilarity. One additional proposal, which was published as a proposed rule by the Office of Inspector General of the Department of Health and Human Services on February 6, 2019, and is focused initially on drugs reimbursed under Medicare Part D and certain Medicaid managed care organizations (although comments were sought as to whether its scope should be expanded, including to Medicare Part B drugs), would substantially disrupt current pharmaceutical market practices by apparently rendering illegal, under the federal Anti-Kickback Statute, many drug rebates now routinely paid by drug manufacturers to such health benefit plans or their pharmacy benefit managers (PBMs). The uncertain status of these various pricing proposals, some of which could take effect based on action by federal administrative agencies without the need for Congressional action, affects our ability to plan, and the proposals, if adopted, in whole or in part, could adversely affect our business.

An increasing number of states in the United States have also proposed or passed legislation that seeks to directly or indirectly regulate pharmaceutical drug pricing, such as by requiring drug manufacturers to publicly report pricing information or to place a maximum price ceiling on pharmaceutical products purchased by state agencies. For example, in October 2017, California enacted a prescription drug price transparency law that requires prescription drug manufacturers to provide advance notice and explanation for certain drug price increases that exceed a specified threshold. Laws of this type may cause us to experience additional pricing pressures on our affected products, and could adversely affect our business.

Medicare Part D is a partial, voluntary prescription drug benefit created by the federal government primarily for persons 65 years old and over. The Medicare Part D drug program is administered through private insurers that contract with CMS. Government payment for some of the costs of prescription drugs may increase demand for any products for which we receive marketing approval. However, to obtain payments under this program, we are required to negotiate prices with private insurers operating pursuant to federal program guidance. These prices may be lower than we might otherwise obtain. In addition, beginning in 2011, the Healthcare Reform Law generally required that we provide a 50% discount (the "Coverage Gap Discount") to patients who have expended certain amounts for drugs and therefore fall within the Medicare Part D coverage gap. In February 2018, legislation was enacted as part of the Bipartisan Budget Act of 2018 that increased this coverage gap discount to 70%, and extended the price reductions of the Coverage Gap Discount Program to include biosimilar drugs.

The availability of federal funds to pay for our products under the Medicaid and Medicare Part B programs requires that we extend discounts under the 340B/PHS drug pricing program. The 340B/PHS drug pricing program extends discounts to a variety of community health clinics and other specified entities that receive health services grants from the PHS, as well as hospitals that serve a disproportionate share of certain low income individuals. The PHS ceiling price cannot exceed the AMP (as reported to CMS under the Medicaid drug rebate program) less the Medicaid unit rebate amount. We have entered into a PPA with the government in which we agree to participate in the 340B/PHS program by charging eligible entities no more than the PHS ceiling price for drugs intended for outpatient use. Evolving requirements with respect to this program continue to be issued by the HRSA of HHS, the federal agency responsible for oversight of the 340B/PHS program, which creates uncertainty. For example, effective January 1, 2019,

a final HRSA rule codified standards regarding the calculation of the ceiling price for covered outpatient drugs under the 340B/PHS program, as well as regarding the imposition of civil monetary penalties, or CMP, on manufacturers that knowingly and intentionally overcharge covered entities.

We make our products available for purchase by authorized government users of the Federal Supply Schedule, or FSS, pursuant to their FSS contracts with the Department of Veterans Affairs. Under the Veterans Health Care Act of 1992, companies are required to offer discounted FSS contract pricing to four federal agencies—the Department of Veterans Affairs, the Department of Defense, the Coast Guard and the PHS (including the Indian Health Service)—for federal funding to be made available for reimbursement of products under the Medicaid program and products eligible to be purchased by those four federal agencies. FSS pricing to those four federal agencies must be equal to or less than the ceiling price, which is, at a minimum, 24% off the non-federal AMP for the prior fiscal year.

The Healthcare Reform Law imposed a fee on manufacturers and importers of branded prescription drugs and biologics based on their sales to United States government health programs. An aggregate annual fee of $3.0 billion was imposed on all covered entities for 2014 through 2016. The aggregate fee is allocated among applicable manufacturers and importers, including us, based on their relative sales to government health programs. The aggregate fee increased up to $4 billion for 2017, $4.1 billion for 2018, and is scheduled to be reduced to $2.8 billion for 2019 and thereafter. Beginning in 2013, the Healthcare Reform Law also imposed a new excise tax on many medical devices equal to 2.3% of the sales price, and excludes devices generally purchased by the general public at retail for individual use. However, with respect to the medical device excise tax, a two-year moratorium was imposed under the Consolidated Appropriations Act, 2016, suspending the imposition of the tax on device sales during the period beginning January 1, 2016 and ending December 31, 2017. On January 22, 2018, an additional two-year moratorium was imposed under Public Law No. 115-120, suspending the imposition of the tax on device sales during the period beginning January 1, 2018 and ending on December 31, 2019. Diagnostic division equipment that we manufacture or import into the United States may be subject to these taxes. In addition, the Prescription Drug User Fee Act, or PDUFA, first enacted in 1992, sets forth user fees that pharmaceutical and biological companies pay to the FDA for: certain applications for approvals of drugs and biologicals; the establishments where the products are made; and the products themselves. The fees under PDUFA cover a substantial portion of the FDA's operating budget, and the measure also addresses aspects of the regulatory approval process, such as timing and procedures. PDUFA is subject to reauthorization by Congress every five years, and in December 2016, after a lengthy process involving significant industry and other stakeholder input, the FDA submitted its final recommendations to Congress for the sixth PDUFA reauthorization, which was signed into law in August 2017, and which covers fiscal years 2018 through 2022.

The marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. Federal, state and local governments in the United States have enacted and continue to consider additional legislation to limit the growth of healthcare costs, including the costs of prescription drugs. Existing and future legislation could limit payments for our existing products or for drug candidates that we are developing, including possibly permitting the federal government to negotiate prices directly with manufacturers. In addition, an increasing emphasis on managed care in the United States has increased and will continue to increase the pressure on pharmaceutical pricing.

Other Governmental Regulation

Our operations and many of the products that we manufacture or sell are subject to extensive regulation by numerous other governmental agencies, both within and outside the United States, non-compliance with which could adversely affect our business, financial condition and results of operations. In the United States, apart from the agencies discussed above, our facilities, operations, employees, products (their manufacture, sale, import and export) and services are regulated by the Drug Enforcement Agency, the Environmental Protection Agency, the Occupational Health & Safety Administration, the Department of Agriculture, the Department of Labor, Customs and Border Protection, the Transportation Security Administration, the Department of Commerce, the Department of Treasury, the DOJ, the U.S. Office of Foreign Assets Control and others. State and local agencies also regulate our facilities, operations, employees, products and services within their respective states and localities. Government agencies outside the United States also regulate public health, product registration, manufacturing, environmental conditions, labor, exports, imports and other aspects of our global operations.

DIRECTORS AND SENIOR MANAGEMENT

Board of Directors

Pursuant to the Articles of Association, we are managed by a Board, which may be composed of not less than three and not more than 15 directors. Our current Board has 13 directors. Directors may be either individuals or legal entities represented by individuals. Under Spanish law, the Board is responsible for management, administration and representation in all matters concerning the business, subject to the provisions of the Articles of Association and the powers conferred at the general shareholders' meeting.

Appointment and Dismissal

Pursuant to Spanish law and our Articles of Association, directors are elected by our shareholders to serve for a term of four years and may be reelected to serve for an unlimited number of terms, except in the case of independent directors, who pursuant to Spanish Law and the Board Regulations, shall not serve as such for more than 12 years. We do not provide for the reelection of directors at staggered intervals or cumulative voting for such directors or otherwise.

A director may either be an individual or an entity represented by an individual. If a director ceases to hold office prior to the expiration of his or her term, the Board may fill the vacancy by appointing, a new director to replace the outgoing director. Any director so appointed will hold office until the next general shareholders' meeting when the appointment may be confirmed or revoked by our shareholders. If such appointment takes place between the time that a general shareholders' meeting is called and the time the meeting takes place, then the director so appointed will hold office until the next general shareholders' meeting, when this appointment is to be confirmed or revoked. Any such appointment will be only for the remainder of the term of the outgoing director, without prejudice to such director's eventual election. A director may resign, or be removed, from office by a resolution of our general shareholders' meeting at any time. A director who is also a shareholder may vote freely on any of our shareholders' resolutions relating to the appointment and dismissal of directors (including the appointment or dismissal of that director).

In addition, pursuant to the Board Regulations, a director must tender a resignation to the Board and the Board may accept such resignation, in its discretion, under the following circumstances: (i) when the director ceases to hold the executive position to which such director's appointment to the Board was related; (ii) when the director becomes unable to hold the office due to a legal cause of ineligibility or incompatibility; (iii) when the director has been formally charged with certain crimes (including, but not limited to, crimes against personal freedom, economic crimes and crimes against the justice administration) or a formal inquiry is opened against him or her by a regulator; (iv) when the director has been severely admonished by our audit committee (Comité de Auditoría), or Audit Committee, for having breached his or her duties as director; (v) when the director's participation on the Board may jeopardize our interests or when the reasons for his or her appointment cease to exist; and (vi) in the case of a proprietary director, when the relevant shareholder ceases to hold its equity interest in us, or reduces its equity interest below the level that reasonably justified the appointment of such director.

In addition, under Spanish corporate law, a holder of voting shares (or group of shareholders of voting shares acting together) may, subject to availability of seats on the Board, appoint a number of directors proportionate to that shareholder's (or group of shareholders') interest in our voting capital. If the voting capital stock represented by the shares held by such shareholder (or group of shareholders) is equal to or greater than the result of dividing our total voting capital stock by the number of directors, such shareholder (or group of shareholders) shall have the right to appoint a proportionate number of directors. For example, a shareholder holding 20 voting shares out of a total of 100 voting shares in a company with five directors will be entitled to appoint one director. Should this power be exercised, shares so pooled shall not participate in the voting for the other members of the Board. However, they may exercise their voting rights with respect to the removal of existing directors. Since such rights apply only to voting shares or Class B shares that have recovered their voting rights, our Class B shares and the Class B ADSs that represent them in the United States do not count towards the proportional representation right.

The Board must appoint a Chairman of the Board from among its members. Mr. Víctor Grifols Roura is the current non-executive Chairman. The Board may also designate one or more Vice Chairmen, who shall be numbered consecutively, and who shall replace the Chairman in the event of impossibility to act or absence. Mr. Thomas H. Glanzmann is the current Vice Chairman.

The Board must also appoint a Secretary and may also designate one or more Vice-Secretaries. Neither the Secretary nor the Vice-Secretary is required to be a member of the Board; however, the Secretary or

the Vice-Secretary will not be entitled to vote on matters before the Board unless he or she is a member of the Board. Mr. Tomás Dagá Gelabert is the current Vice-Secretary of the Board and Ms. Núria Martín Barnés is the current Secretary non-member of the Board.

Meetings of the Board of Directors

Pursuant to the Articles of Association, a meeting of the Board may be called by the Chairman whenever he considers such a meeting necessary or suitable. The Chairman is also required to call a meeting at the request of one-third of the directors. Meetings of the Board are called using any means of notice at least ten days before the date of the meeting, unless exigent circumstances require a shorter term. Such notice of a meeting of the Board must state the place, date and time as well as the issues to be discussed. The Board is required by Spanish law to hold a meeting at least every three months. Our Articles of Association provide that a majority of the directors (half plus one of the directors present at a meeting) of the Board (represented in person or by proxy by another director on the Board) constitutes a quorum. Except as otherwise provided by law or specified in the Articles of Association, resolutions of the Board must be passed by an absolute majority of the directors present or represented at a meeting, with the Chairman having the right to cast a deciding vote in the event of a tie.

Delegation of Powers

Pursuant to Spanish law and our Articles of Association, the Board may delegate its powers either to an executive committee (Comisión Ejecutiva) or to one or more chief executive officers. Spanish corporate law provides that resolutions appointing an executive committee, any chief executive officer or authorizing the permanent delegation of all, or part of, such board of directors' powers, requires a two-thirds majority of the members of such board of directors and the registration of such resolution in the Spanish Commercial Registry (Registro Mercantil). The Board may also revoke such powers at any time. In addition, when a member of the Board is appointed chief executive officer or vested with executive functions, he/she will need to enter into an agreement with the Company, which shall be approved by a two-thirds majority of the Board. The director in question will have to refrain from participating in the deliberation and voting process of such agreement.

Under Spanish corporate law, a board of directors may also grant general or specific powers of attorney to any person whether or not that person is a director or a shareholder. General powers of attorney must be registered in the Commercial Registry. However, Spanish law provides that the following powers, among others may not be delegated: (i) the formulation and submission for approval of the yearly financial statements at the general shareholders' meeting; and (ii) those powers granted to the board of directors by a general shareholders' meeting (unless otherwise provided in the relevant shareholders' resolution).

Mr. Raimon Grifols Roura and Mr. Víctor Grifols Deu currently serve as joint and several Chief Executive Officers of the Company, with delegation of all powers legally delegable from the Board.

Set forth below are the names and current positions of the members of the Board:

Name	Age	Title	Type	Director Since	Term Expires
Víctor Grifols Roura	69	Director, non-executive Chairman of the Board	Proprietary	July 1991[1]	May 2021
Victor Grifols Deu	42	Director and Chief Executive Officer	Executive	May 2016	May 2020
Raimon Grifols Roura	55	Director and Chief Executive Officer	Executive	May 2015	May 2023
Ramón Riera Roca	65	Director	Other External	April 2000[2]	May 2021
Tomás Dagá Gelabert	63	Director and Vice-Secretary of the Board	Other External	April 2000	May 2023
Thomas H. Glanzmann	61	Director, Vice-chairman of the Board of Directors	Other External	April 2006	May 2020
Enriqueta Felip Font	56	Director	Independent	May 2019	May 2023
Luís Isasi Fernández de Bobadilla	63	Director	Independent	May 2011	May 2020
Steven Francis Mayer	59	Director	Independent	January 2011	May 2020
Belén Villalonga Morenés	51	Director	Independent	May 2013	May 2022
Marla E. Salmon	70	Director	Independent	May 2014	May 2022
Carina Szpilka Lázaro	50	Director	Independent	May 2015	May 2023
Iñigo Sánchez-Asiaín Mardones	55	Director and Lead Independent Director[3]	Independent	May 2015	May 2023
Nuria Martín Barnés	61	Secretary non-member of the Board of Directors	n/a	May 2015	n/a

(1) Between July 8, 1991 and May 30, 2002, Mr. Víctor Grifols Roura was not a director but sat on the Board as representative of our then director Deria, S.A.

(2) Between May 25, 2001 and May 30, 2002, Mr. Ramón Riera Roca was not a director but sat on the Board as representative of our then director Grifols International, S.A.

(3) The lead independent director is a new figure introduced by Law 31/2014, adopted on December 3, 2014, that amended the Spanish Companies Act in matters of corporate governance, or Law 31/2014. It is mandatory to appoint a lead independent director when the office of Chairman of the Board and that of chief executive officer is held by the same person. The lead independent director must (i) be an independent director and be authorized to request the calling of a board meeting or the inclusion of new points on the agenda of a board meeting already convened, (ii) coordinate and gather the non-executive directors and (iii) direct, when applicable, the Chairperson's periodic evaluation by the Board. The Board in its meeting held on May 24, 2019 agreed to maintain Iñigo Sánchez-Asiaín Mardones as the Company's lead independent director even if from that date onwards the position is not mandatory since the office of the Chairman of the Board and that of chief executive officer is not held by the same person.

Director Biographies

Víctor Grifols Roura

Mr. Víctor Grifols Roura is non-executive Chairman and proprietary director since January 1, 2017. From 1985 to 2017, he held the role of Chief Executive Officer and top executive of the Grifols Group, succeeding his father, Mr. Víctor Grifols Lucas. Mr. Víctor Grifols Roura spearheaded the 1987 reorganization that created Grifols as it is today. Mr. Víctor Grifols Roura originally joined the Group in 1973 as an Export Manager and later served as Sales Manager. Since 2014, he has been a member of the board of directors of Criteria Caixa, S.A. Sociedad Unipersonal. Mr. Grifols Roura earned a business administration degree from the University of Barcelona. As part of the approved Company's succession plan on January 1, 2017, Mr. Víctor Grifols Deu and Mr. Raimon Grifols Roura were appointed co-CEOs of the Company.

Mr. Víctor Grifols Roura is a shareholder of Deria, S.A. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act). He is also a shareholder of Scranton Enterprises B.V. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act). Ms. Nuria Roura Carreras (Rodellar Amsterdam Holdings B.V.) is the mother of Mr. Víctor Grifols Roura.

Víctor Grifols Deu

Mr. Víctor Grifols Deu is Grifols' joint and several Chief Executive Officer together with Mr. Raimon Grifols Roura since January 1, 2017. He succeeded his father, Mr. Víctor Grifols Roura in the position. He is a member of the administration bodies of several companies within the Grifols Group and was appointed executive director in May 2016. He joined the Group in 2001 as an analyst in the Planning and Control Department. In 2008 he became the director of the Planning and Control Department and was also appointed a member of the Executive Committee. He has been part of the team that analyzed and was responsible for the integration of operations after the acquisition of Alpha Therapeutics, Talecris Biotherapeutics and Novartis' Transfusion Diagnostic Unit. He graduated in Business Administration and Management from the Ramon Llull University—Sarrià Chemical Institute (IQS) and holds a postgraduate degree in Business Administration and Management from Michael Smurfit Business School in Dublin. Mr. Víctor Grifols Deu is the grandson of Ms. Nuria Roura Carreras (Rodellar Amsterdam Holdings B.V.).

Raimon Grifols Roura

Mr. Raimon Grifols Roura is Grifols' joint and several Chief Executive Officer together with Mr. Víctor Grifols Deu since January 1, 2017. He succeeded his brother, Mr. Víctor Grifols Roura in the position. He is a member of the administration bodies of several companies within the Grifols Group. From 2001 to 2015 he held the role of non-member secretary of the Board of Directors of Grifols, S.A., and in 2015 began serving as director and Vice Secretary of the Board of Directors. In May 2016, the Board accepted his resignation as Vice Secretary. Until his appointment as executive director in July 2016, Mr. Grifols Roura was a partner at the law firm Osborne Clarke in Spain. Mr. Grifols Roura earned his law degree from the University of Barcelona (Universidad de Barcelona).

Mr. Raimon Grifols Roura is the sole director and a shareholder of Deria, S.A. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act). He is also a shareholder of Scranton Enterprises B.V. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act). Ms. Nuria Roura Carreras (Rodellar Amsterdam Holdings B.V.) is the mother of Mr. Raimon Grifols Roura.

Ramón Riera Roca

Mr. Ramón Riera Roca joined Grifols in 1977 and served as Chief Commercial Officer as well as being a member of the administration bodies of several companies of the Grifols Group until his retirement on June 30, 2018. Mr. Riera earned a degree in Chemical Sciences from the Autonomous University of Barcelona.

Mr. Ramón Riera Roca is a shareholder of Scranton Enterprises B.V. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act).

Tomás Dagá Gelabert

Mr. Tomás Dagá Gelabert has served as director of Grifols since April 2000 and also as Vice Secretary of the Board since May 2016. He is a partner and founder of the law firm Osborne Clarke in Spain. He was the managing partner of the law firm Osborne Clarke in Spain until June 30, 2017. Prior to joining Osborne Clarke, he worked in the corporate and tax department of Peat Marwick Mitchell & Co. in Barcelona. He is currently a member of the administration bodies of several companies within the Grifols Group. He is a board member of Alkahest Inc. as well as a trustee and Secretary of the private foundation Victor Grifols i Lucas and trustee of the Probitas Fundación Privada foundation. Mr. Dagá earned his law degree from the University of Barcelona (Universidad de Barcelona).

Mr. Tomás Dagá Gelabert is a shareholder of Scranton Enterprises B.V. (a non-controlling shareholder, pursuant to the Spanish Securities Market Act).

Thomas H. Glanzmann

Mr. Thomas H. Glanzmann has served as a director of Grifols since April 2006 and on January 1, 2017 he was appointed non-executive Vice Chairman of the Board of Directors. He serves as a Director on the Board of Alcon, Inc., and is a Healthcare Advisor to Madison Dearborn and Partners. He is a founder and General Partner of Medical Technology Venture Partners in California. From 2006 until 2011 he was the CEO and Chairman of Gambro AB. Prior to this Mr. Glanzmann was the CEO and Managing Director of

HemoCue AB. Between 1988 and 2004 he held various positions at Baxter Healthcare Corporation: Senior Vice-President and Senior Corporate Officer of Baxter Healthcare Corporation; President of Baxter Bioscience; Chief Executive Officer of Immuno International; and President of the European Biotech Group. Between 1984 and 1988 he worked at Philip Morris where he was the country manager for Norway, Denmark and Iceland. He also was a senior advisor to the Executive Chairman and a managing director at The World Economic Forum in Davos from 2004-2005 and the Chairman of the Plasma Protein Therapeutics Association (PPTA) between 2000 and 2001. Mr. Glanzmann holds an MBA from IMD in Lausanne, Switzerland, a B.A. in Political Science from Dartmouth College, USA. and a Board of Directors Certification from the UCLA Anderson School of Management.

Enriqueta Felip Font

Ms. Enriqueta Felip Font has served as a director of Grifols since May 2019. She has an extensive professional career and accredited experience in the oncology sector, as well as knowledge in the scientific and research field. She is currently the Section Chief of the Medical Oncology Service at Vall d'Hebron University Hospital and the Principal Investigator of the Vall d'Hebron Institute of Oncology's Thoracic Tumors Cancer Group. Throughout her career, she has obtained several recognitions for her work in the oncology field. In 2015, she was awarded with the first ESMO Women for Oncology Award from the European Society of Medical Oncology (ESMO).

Most recently, she featured on Clarivate Analytics' annual Global Highly Cited Researchers List 2018, under the newly launched cross-field category. Ms. Enriqueta Felip Font has played key roles in many leading professional societies including the European Society of Medical Oncology (ESMO), the European School of Oncology (ESO) and the International Association for the Study of Lung Cancer (IASLC). She received her degree in Medicine and Surgery from the Autonomous University of Barcelona, where she also completed her studies for a PhD in Medical Oncology.

Steven F. Mayer

Mr. Steven F. Mayer has served as a director of Grifols since January 2011. He is currently the CEO of Iron Horse Acquisition Corp. and of Dedication Capital LLC, private investment firms that he founded. From 2002 until 2018, he held a variety of senior positions with Cerberus Capital Management L.P. and Cerberus California LLC, affiliated private investment firms, culminating with serving as Senior Managing Director, Co-Head of Global Private Equity, and Chairman of the Cerberus Investment Committee.

Mr. Mayer holds Bachelor in Arts (cum laude) from Princeton University and a law degree (Juris Doctor; magna cum laude) from Harvard Law School. Mr. Mayer has served as a member of the board of directors or equivalent body of a large number of companies in a wide variety of industries in the United States and Europe, and is currently a member of the Board of Supervisors of Syntellix AG.

Luís Isasi Fernández de Bobadilla

Mr. Luís Isasi Fernández de Bobadilla has served as a director of Grifols since May 2011. He is Managing Director of Morgan Stanley in Spain and Country Head for the Iberia region. He joined Morgan Stanley in London in 1987. Prior to that, he served as executive director at First Chicago Ltd. in London and, previously, worked in New York for the Latin American department of Morgan Guaranty Trust Co. Mr. Isasi started his professional career in Abengoa, in Seville (Spain) in 1977. Mr. Isasi has a Bachelor's Degree in Business and Economics from the University of Seville, and holds an MBA from Columbia Business School.

Belén Villalonga Morenés

Ms. Belén Villalonga Morenés has served as a director of Grifols since May 2013. She is an Associate Professor with Tenure at New York University's Stern School of Business. Between 2001 and 2012 she was a faculty member at Harvard Business School. She serves as an independent director at Acciona, a leader in the renewable energy and infrastructure businesses, since 2006. She was also an independent director and President of the Strategy Committee at Talgo, a high-speed train manufacturer, until July of 2018. She is also a Senior Associate Partner at Cambridge Advisors to Family Enterprise, a family business consulting company. Her teaching, research, and consulting activities are in the areas of corporate strategy, finance, and governance, with a special focus on family-controlled companies. Her award-winning research, which has been published in the top academic journals, has been cited extensively in academic articles and in the international media. She holds a Ph.D. in Management and an M.A. in Economics from the University of

California at Los Angeles, where she was a Fulbright Scholar. She also holds a second Ph.D. in Business Economics from the Complutense University of Madrid and a B.A. in Economic and Management Sciences from the Colegio Universitario de Estudios Financieros in Madrid. Before starting her doctoral studies, she worked at McKinsey & Co. in Paris.

Marla E. Salmon

Ms. Marla E. Salmon has served as a director of Grifols since May 2014. She is a Professor at the University of Washington (USA) and holds several positions in nursing, global health, public affairs and business management. Her career has focused on health policy and capacity building in both global and U.S. contexts, working with governments, international agencies and other health-related entities. Her recent work focuses on entrepreneurship and social development projects in the health sector.

Ms. Salmon currently serves on the governing boards of IES Abroad, Inc. and The One City Project. Previous board service includes the Robert Wood Johnson Foundation and the National Center for Healthcare Leadership. She has also served on the White House Task Force on Health Care Reform, the Commission to Build a Healthier America, the World Health Organization's Global Advisory Group on Nursing and Midwifery, and the National Institutes of Health National Advisory Committee for the Institute of Nursing Research.

Ms. Salmon holds a doctorate in health policy and administration from Johns Hopkins University, degrees in political science and nursing from the University of Portland, and was a Fulbright Scholar at the University of Cologne (Germany). She also holds two Honoris Causa doctorates in recognition of her national and international services and is a member of the Institute of Medicine.

Carina Szpilka Lázaro

Ms. Carina Szpilka Lázaro has served as a director of Grifols since May 2015. She earned a degree in Business Administration from the Universidad Pontificia de Comillas in Madrid (ICADE) and an Executive MBA from the Instituto de Empresa de Madrid. She began her professional career in the financial sector working at Banco Santander and Argentaria (now known as BBVA). In 1998 she was part of the team that founded ING Direct in Spain, where she held the position of CEO from 2010 to 2013, having previously held that position in ING Direct France from 2008 to 2010. She is currently an independent director at Abanca and Meliá Hotels International, as well as a partner at KFund Venture Capital and Chairwoman of Adigital. She has received numerous awards. Among others, in 2011 she was given the "Female Executive of the Year" award by the Spanish Federation of Female Directors, Executives, Professionals and Enterpreneurs (Federación Española de Mujeres Directivas—FEDEPE).

Iñigo Sánchez-Asiaín Mardones

Mr. Iñigo Sánchez-Asiaín Mardones has been the Lead Independent director of the Board since May 2015. He earned a degree in Business Administration from the Universidad Pontificia de Comillas in Madrid (ICADE) and an MBA from Harvard Business School. In 2010 he founded Portobello Capital, where he remains a partner and a member of the Executive Committee and Investment Committee at Portobello Capital, leading the investments in companies such as Angulas Aguinaga, company where he is Chairman and member of the Executive Committee and Hotels & Resorts Blue Sea, S.L., where he is a member of the board of directors. Previously, from 1993 to 2005, he was Deputy General Director at Banco Santander and from 2005-2010 was a partner and member of the board of directors of Ibersuizas Gestión SGECR, S.A. He is also a member and former chairman of the Executive Committee at the Harvard Club of Spain.

Biography of the Secretary Non-Member of the Board

Núria Martín Barnés

Ms. Núria Martín Barnés served as Vice-Secretary Non-Member of the Board of Directors from 2001 to 2015, and has served as Secretary Non-Member of the Board of Directors since 2015. Ms. Martín became the managing Partner at Osborne Clarke Spain on July 1, 2017. Prior to joining Osborne Clarke she worked in the Corporate and Tax Department of KPMG Peat Marwick from 1982 to 1986. Ms. Martín is also secretary and member of the board of directors of Compañía General de Inversiones, SICAV, S.A., Gesiuris Asset Management, SGIIC, S.A., Gesirius CAT Patrimonis, SICAV, S.A., Gesiuris URC

Patrimonis, SICAV, S.A., and Technetix Spain, S.L. Ms. Martín earned her law degree from the University of Barcelona.

Senior Management

Our senior management currently consists of the following persons:

Name	Age	Title	Since
Raimon Grifols Roura	55	Co-CEO	2017
Víctor Grifols Deu	42	Co-CEO	2017
Alfredo Arroyo Guerra	62	Chief Financial Officer	2013
Miguel Pascual Montblanch	60	President, Commercial Operations Support	2018
Vicente Blanquer Torre	58	VP Quality and Regulatory Affairs	2016
Mateo Florencio Borrás Humbert	64	Chief Human Resources Officer	2013
Gregory Gene Rich	68	President and Chief Executive Officer of Grifols Shared Services North America, Inc.	2015
David Ian Bell	65	General Counsel and Chief Innovation Officer	2016
Nuria Pascual Lapeña	55	VP, CORP Treasury & Investor Relations	2015
Lafmin Morgan	54	Chief Commercial Officer	2018
Carsten Schroeder	53	President of the Diagnostic Commercial Division	2018
Jose Oriol Duñach Fulla	62	President of the Diagnostic Industrial Group	2013
Eduardo Herrero Jiménez	51	President of Bioscience Industrial Group	2017
Daniel Fleta Coit	48	Chief Industrial Officer	2019
Robert Jagt	54	President of the Hospital Commercial Division	2018
Luis Twose Garçon	42	Managing Director Laboratorios Grifols	2018
Joel Abelson	61	President of the Bioscience Commercial Division	2018
Alberto Grifols Roura	60	President of the Bio Supplies Division	2018
Matt Murawski	53	VP, Innovation Operations & Analytics	2017
Maria Teresa Rioné Llano	54	VP, Corporate Communications	2018
Albert Grifols Coma-Cros	42	President, Grifols Worldwide Operations Limited	2018
Xavier Sueiras Gil	51	Chief IT Officer	2018

Senior Management Biographies

The following are the biographies of our senior management who are not also directors:

Alfredo Arroyo Guerra

Mr. Arroyo has served as our Corporate Vice President and Chief Financial Officer since January 2007. Previously, Mr. Arroyo served as a CFO and in various Senior Finance positions in companies including KPMG, Carrefour, Chupa Chups, Reckitt Benckiser and Winterthur. Mr. Arroyo received a degree in Economics and is a Certified Public Accountant in Spain.

Miguel Pascual Montblanch

Mr. Pascual has served as our President Commercial Operations Support (previously President Operations Network) since 2012 and he is also a member of the board of worldwide Grifols commercial affiliates. He joined us in 1974 and has held several positions since that time, beginning as General Manager of Grifols Movaco, S.A. until 2007. He was also General Manager of Iberoamerica Sales from June 2007 until 2012.

Vicente Blanquer Torre

Mr. Blanquer has served as our VP Quality and Regulatory Affairs since 2007 and was Corporate Vice President and the Technical Director of the Biological Industrial Group (previously the Pharmaceutical Technical Director) since 1993. He is responsible for both Bioscience's quality assurance and quality control. From 1987 until 1993, he was the Deputy Technical Director, responsible for process quality control concerning plasma derivatives manufacturing. Mr. Blanquer received a degree in Pharmacy from the University of Barcelona.

Mateo Florencio Borrás Humbert

Mr. Borrás has served as our Corporate Vice President and Chief Human Resources Officer (previously Director of Global Human Resources) since 2008. Previously, he served as a HR Director at various companies, including EMAYA, Nissan Motor Ibérica and others. He is a member of AEDIPE (Spanish Association of People Management and Development, of which he has also been Chairman) and he is an Arbitrator at the Arbitrator Corps of Catalonian Labor Court. Mr. Borrás received a degree in Psychology and a Postgraduate on Labor and Social Security, both at the University of Barcelona.

Gregory Gene Rich

Mr. Rich has served as President and Chief Executive Officer of Grifols Shared Services North America, Inc. (previously Grifols, Inc.) since December 2001. Previously, he held these positions in Grifols, Inc. Prior to working with us, Mr. Rich worked for Grupo Picking Pack, as Chief Operating Officer from December 2000 to December 2001 and from July 1997 to August 2000, as Senior Vice President for Green Cross International, the then parent of Alpha. Mr. Rich also worked for Alpha as Vice President and General Manager of International Operations from October 1995 to July 1997. In between his two terms at Alpha, Mr. Rich worked for us from January 1983 to October 1995 and served as our co-President for the period December 1985 through his departure in 1995. Mr. Rich earned a Bachelor's of Science degree from California Polytechnic University, Pomona.

David Ian Bell

Mr. Bell has been the General Counsel NA since 2003 and Chief Innovation Officer since 2016. Mr. Bell joined us as a Corporate Vice President of Grifols Shared Services North America, Inc. (previously Grifols, Inc.) in July 2003. He also serves as a member of our Executive Committee in Spain. He additionally serves on the boards of numerous companies affiliated to Grifols. Mr. Bell is responsible for all legal activities of our U.S. operations, including litigation, mergers and acquisitions, real estate transactions, intellectual property and contracts. He is also responsible globally for the innovation activities of the Company. Prior to joining us, Mr. Bell was Vice President and General Counsel for Alpha. He also spent time as a partner at the U.S. law firm of Knapp, Petersen & Clarke where he specialized in complex litigation involving healthcare, pharmaceutical and biotechnology regulation and liability. Mr. Bell attended the University of California, Irvine, Southwestern University School of Law and a postgraduate program at Harvard Law School. He is a member of the California State Bar and is admitted to practice before the U.S. Supreme Court as well as numerous federal appellate and district courts.

Nuria Pascual Lapeña

Ms. Pascual joined us in 1996. She currently serves as VP, CORP Treasury & Investor Relations. Prior to joining us, she served in various positions at Deutsche Bank and Banco Santander de Negocios. She is a member of the board of directors of several companies related to her family's businesses. Ms. Pascual received a degree in Economics & Business Administration and received a Masters of Sciences in Economics from the London School of Economics and Political Sciences.

Carsten Schroeder

Mr. Schroeder became President of the Grifols Diagnostic Commercial division in 2014. Prior to joining Grifols, Mr. Schroeder was president of Novartis Diagnostics, where he led growth in the global Transfusion Medicine market and oversaw improvements in manufacturing, quality, and commercial operations. At Novartis, Mr. Schroeder was a member of the Vaccines & Diagnostic Division Executive Committee and served as site head for the Company's Emeryville campus. He joined Novartis Diagnostics in 2010 as Vice President of Commercial Operations for the EMEA region. Mr. Schroeder has held executive positions with Boston Scientific and positions of increasing responsibility at Mallinckrodt (now Covidien) and Boehringer Ingelheim. Mr. Schroeder holds an MBA from the European School of Management in Paris (ESCP) and a Bachelor of Arts in Economics from the University of Cologne in Germany.

Lafmin Morgan

Mr. Morgan has been Chief Commercial Officer since July 2018 and had been President of the Global Bioscience Division for Grifols since 2014. Previously, Mr. Morgan led the Global Marketing function for all Grifols divisions, Bioscience, Hospital and Diagnostics. Mr. Morgan also served as Grifols North

American Vice President and General Manager for Pulmonary in 2011. Mr. Morgan joined Grifols (then Talecris) in 2010. He was the Vice President of Product Management at Talecris Biotherapeutics where he was responsible for the marketing of Gamunex-C, Prolastin-C, Thrombate, Koate—DVI and the company's line of Hypermune products. Prior to Grifols, Mr. Morgan worked at GSK for 20 years. During that time, he held a variety of positions in a number of different functional areas. Mr. Morgan holds a Bachelor's Degree in Business Administration and an MBA from the University of North Carolina in Chapel Hill.

Jose Oriol Duñach Fulla

Mr. Duñach joined us in 1985 and has held several positions since that time, starting as Sales Manager Deputy, later Diagnostic Division Manager and finally acting as General Manager of Diagnostic Grifols S.A. from 1987 to 2013. Since 2013, Mr. Duñach has served as President of the Diagnostic Industrial Group. Beginning in 2015, he has also been Managing Director of Medion Diagnostic A.G. Mr. Duñach is a member of the board of *Fenin*, the Spanish association of Medical Device Manufacturers. Mr. Duñach received a degree in Organic Chemistry from the University of Barcelona in 1979.

Luis Twose Garçon

Mr. Twose joined us in 2002 and has held several positions since that time, progressing from project engineer in Grifols Engineering, S.A. to director of the manufacturing plant in Parets (Spain) of Laboratorious Grifols, S.A. and acting later as Deputy Managing Director of Laboratorios Grifols, S.A. Since July 2018, Mr. Twose has served as Managing Director of Laboratorios Grifols, S.A. Mr. Twose received a degree in Industrial Engineering from the Universitat Politècnica de Catalunya in 2001.

Daniel Fleta Coit

Mr. Fleta joined us in 2001 and since January 2019 he has been our Chief Industrial Officer. Previously, Mr. Fleta served as Deputy Chief Industrial Officer and Managing Director Grifols Engineering S.A. from 2011 to 2018. Beginning in 2005, he has served as Director Pharmaceutical Projects. Mr. Fleta received a degree in Industrial Engineering from the Institut Químic de Sarrià in 1995.

Eduardo Herrero Jimenez

Mr. Herrero joined us in 1998 and since January 2018 he has been our President Bioscience Industrial Group. Previously, Mr. Herrero served as President and Managing Director of Biomat, S.A. from 2009 to 2015. Beginning in 2002, he had served as Manager Regulatory Affairs. Mr. Herrero received a Master's Degree in Pharmacy from the Universitat Politècnica de Barcelona in 1991.

Robert Jagt

Mr. Jagt joined us in 2014 as Vice President Commercial Services and since July 2017 he has been our President of Hospital Commercial division (previously President Hospital Operations Network). Previously, Mr. Jagt served as Vice President Bioscience Commercial Services & Controlling. Mr. Jagt holds a Bachelor of Arts, Business & Economics from Wheaton College, Illinois.

Joel Abelson

Mr. Abelson joined us in 2006 and since 2018 he has been our President Bioscience Commercial division. Previously, Mr. Abelson served as President Global Bioscience Sales & Commercial Operations and Corporate Vice President Commercial NA Operations from 2013 to 2016. Beginning in 2011, he has served as President NA Commercial Operations. Mr. Abelson holds a Bachelor of Arts from the Carleton University in Ottawa and a Master's in Public Administration from the University of Toronto.

Alberto Grifols Roura

Mr. Grifols joined us in 1985 and since 2018 has served as President Bio Supplies division. Previously he has held several positions, such as; Managing Director of Grifols Argentina, S.A. Managing Director of Biomat, S.A. Managing Director of Laboratorios Grifols, S.A.; and President Instituto Grifols, S.A. from 2011 to 2016. Mr. Grifols received a Master's degree in Industrial Engineering from the Universitat Politècnica de Terrassa in 1985.

Matt Murawski

Mr. Murawski joined us in 2007 as Vice President of both Diagnostic Research and Innovation Management and Project Management and his current role is VP, Innovation Operations & Analytics. Previously, he was the senior executive responsible for business alliances and project execution at Hologic where he coordinated and monitored diagnostic innovation projects, including internal and external investments. Mr. Murawski holds a Bachelor of Science, Finance and a Master's in Business Administration from DePaul University—Kellstadt School of Business.

Maria Teresa Rioné Llano

Ms. Rioné joined Grifols in 2018 as Vice President of Corporate Communications. Prior to Grifols, Ms. Rioné was Senior Director of Communications Western Europe at Nike Corporation. Ms. Rioné is a graduate in Law with honors in Commercial Law from Universitat de Barcelona and a Master's in Marketing and Sales Management from IE Business School.

Albert Grifols Coma-Cros

Mr. Grifols Coma-Cros joined Grifols in 2004 and since 2018 serves as President at Grifols Worldwide Operations Limited on a full-time basis. He previously held positions with us as Corporate Cash Manager and Global Treasury Director, a job that he has combined with his position in Global Treasury since October 2016. Mr. Grifols Coma-Cros received a degree in Business Administration from the Universitat Autònoma de Barcelona in 2004.

Xavier Sueiras Gil

Mr. Sueiras joined us in 1997 and has held several positions since that time, starting as Manufacturing Director in Laboratorios Grifols, S.A., later becoming Project Director from 2005 to 2012 in Grifols and then working as VP NA Information Technology and VP Global IT from 2012 to 2015. Since 2018, Mr. Sueiras has served as Chief IT Officer. Mr. Sueiras received a degree in Industrial Engineering from the Universitat Politècnica de Catalunya in 1994.

Committees of Our Board of Directors

The Board has an Audit Committee and an Appointments and Remuneration Committee. The following is a brief description of such committees.

Audit Committee

The Board established an Audit Committee in compliance with Articles 24.*bis* and 24.*ter* of the Articles of Association and Article 14 of the Board Regulations.

The regulations applicable to the Audit Committee are set forth in the provisions referred to above, as well as the bylaws of the Audit Committee, which were approved by the Board and the Audit Committee on December 9, 2008. In connection with the Talecris acquisition, at a Board meeting held on May 24, 2011, the Articles of Association and Board Regulations were amended to conform to NASDAQ Listing Rules and to facilitate the listing of our Class B ADSs on NASDAQ. Furthermore, the bylaws of the Audit Committee were modified at a Committee meeting held on March 31, 2015 to adapt them to the requirements imposed by Law 31/2014. In 2017, Article 24 of the Articles of Association and Article 14 of the Board Regulations concerning the composition and functions of the Audit Committee were amended in order to adequate their content to the latest amendments of the Companies Act introduced by the currently in force Spanish Audit Act.

Pursuant to our Spanish corporate governance requirements and our Articles of Association and the Board Regulations, the Audit Committee consists of a minimum of three directors and a maximum of five directors who are appointed by the Board based on such directors' knowledge, competence and experience in accounting, audit and risk management matters. All of the members of the Audit Committee must be non-executive directors and the majority must be independent directors. As a group, the members of the Committee must have the pertinent technical knowledge in relation to the sector of activity of the Company. In addition, all members of the Audit Committee, including the chairman, must meet the independence, experience and other requirements set forth in the Exchange Act and NASDAQ Listing Rules.

The responsibilities of the Audit Committee include:

- reporting to the shareholders at general shareholders' meetings regarding matters for which the Audit Committee is responsible;
- having sole authority to recommend to the Board the appointment, hiring and replacement of the external auditor regardless of the faculties vested in the general shareholders' meeting and the Board with regard to the approval of such resolutions under Spanish law;
- oversight of our internal audit department, including selecting its manager, monitoring its budget, receiving periodic information on the department's activities and ensuring that management takes the conclusions and recommendations of the department's reports into account;
- setting up and supervising procedures for the receipt, retention and treatment of complaints regarding accounting, internal controls or auditing matters, as well as the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters;
- exercising oversight of the process for gathering financial information and the related internal control system; reviewing the financial statements and the periodic financial statements that should be submitted to the securities regulatory authorities and ensuring that the appropriate accounting standards are followed; reporting to the Board on any change in the accounting standards and on balance sheet and off balance sheet risks;
- receiving information from the auditors including relating to auditor independence and conduct of audits of the financial statements, and issuing on an annual basis a written opinion on the independence of the auditor;
- issuing on an annual basis a written opinion on the independence of the auditor;
- supervising any transactions entered into with significant shareholders as set forth in the Board Regulations; and
- (i) ensuring compliance with the Internal Code of Conduct of Grifols in Matters Relating to the Stock Market, or Stock Market Code of Conduct, the Code of Conduct for Grifols' Employees, the Board Regulations (each available on our website at *www.grifols.com*) and, in general, any other corporate regulations and (ii) making any necessary proposals to improve such regulations.

The Audit Committee currently consists of Mr. Mayer and Madames Szpilka and Villalonga. Each of the members is independent in conformity with Exchange Act requirements and NASDAQ Listing Rules, as well as in conformity with the Spanish Companies Act. Mr. Tomás Dagá Gelabert serves as Secretary non-member of the Audit Committee.

Appointments and Remuneration Committee

The Board established an Appointments and Remunerations Committee in compliance with Article 24.*bis* of the Articles of Association and Article 15 of the Board Regulations.

Pursuant to Spanish corporate governance requirements and Article 15 of the Board Regulations, the Appointments and Remuneration Committee is required to consist of between three and five members, all of which must be non-executive directors, which includes at least two independent directors.

The responsibilities of the Appointments and Remuneration Committee include:

- assisting in the nomination of directors, including evaluating potential nominees in light of the level of knowledge, competence and experience necessary to serve on the Board;
- establishing a representation target for the gender that is least represented on the Board and prepare guidelines to achieve said target;
- reporting and making proposals to the Board on the appointment of members to the various committees of the Board and on the persons who should hold the office of Secretary and Vice-Secretary of the Board;
- examining and organizing the orderly and planned succession of the Chairman of the Board and the Chief Executive Officer
- reporting on proposals for the appointment and removal of any members of senior management made by the Chief Executive Officer;

- making proposals on the remuneration plans for the Board and senior management;
- periodically reviewing the remuneration plans of senior management, including considering their suitability and performance; and
- reporting on transactions in which directors may have a conflict of interest.

Our Appointments and Remuneration Committee is required, pursuant to Spanish corporate governance requirements and Article 15 of the Board Regulations, to consist of between three and five members, all of which must be non-executive directors. Consistent with NASDAQ Listing Rules for foreign private issuers, our Appointments and Remuneration Committee currently consists of Messrs. Tomás Dagá Gelabert, Luís Isasi Fernández de Bobadilla and Ms. Salmon as directors. Each of Ms. Salmon and Mr. Isasi is independent in conformity with Exchange Act requirements and NASDAQ Listing Rules and Mr. Dagá is considered an "Other External" director under the Spanish Companies Act. Ms. Martín Barnés serves as Secretary non-member of the Appointments and Remuneration Committee.

Family Relationships

Mr. Raimon Grifols Roura, director and one of our Chief Executive Officers, Mr. Alberto Grifols Roura, President of Bio Supplies division and Mr. Víctor Grifols Roura, a director and non-executive Chairman of the Board, are brothers.

Mr. Raimon Grifols Roura is the uncle of Mr. Víctor Grifols Deu, both being directors and co-Chief Executive Officers.

Mr. Alberto Grifols Roura, the President of Bio Supplies division, is the uncle of Mr. Victor Grifols Deu, one of the co-Chief Executive Officers.

Mr. Víctor Grifols Deu, director and one of our co-Chief Executive Officers, is the son of Mr. Víctor Grifols Roura, a director and the non-executive Chairman of the Board.

Messrs. Víctor Grifols Roura, Alberto Grifols Roura and Raimon Grifols Roura are the grandchildren of Mr. José Antonio Grifols i Roig, our founder.

Mr. Raimon Grifols Roura, director and one of our Chief Executive Officers, Mr. Alberto Grifols Roura, President of Bio Supplies division and Mr. Victor Grifols Roura, a director and non-executive Chairman of the Board, are cousins of Mr. Albert Grifols Coma-Cros, the President of Grifols Worldwide Operations Limited.

Compensation of Members of Our Board of Directors

Our directors are entitled to receive compensation for serving as directors on our Board. The Articles of Association generally set forth the processes for the determination of the compensation paid to the members of the Board. Article 20.*bis* of the Articles of Association provides that the directors' remuneration shall be a fixed amount and that, at least every three years and valid for the three fiscal years following the year it is approved, the general shareholders' meeting shall approve the directors' remuneration policy, which, pursuant to Article 26 of the Regulations of the Internal Functioning of the Board of Directors of Grifols (*reglamento de funcionamiento interno del consejo de administración*), or Board Regulations, (i) with respect to directors in their condition as such shall necessarily determine the maximum amount of the annual remuneration to be paid to all the directors and (ii) with respect to the remuneration of the directors for performing their executive duties must include the amount of the annual fixed remuneration, the different parameters to set the variable components and the main terms and conditions of their contracts including, in particular, duration, severance payments or compensations for the termination of the employment relationship, and exclusivity, post-contractual non-competition, and retention or loyalty agreements. The Board then determines, pursuant to Article 26.2 of the Board Regulations, how much of the shareholder-approved aggregate compensation amount will be allocated to each director as compensation, taking into account the recommendations of our appointments and remuneration committee (*comisión de nombramientos y retribuciones*), or Appointments and Remuneration Committee, and their dedication to our business. In this respect, the Company's director remuneration policy is the one which was approved at the general shareholders' meeting held on May 26, 2017 and which is applicable during three fiscal years following the year of its approval.

Our director compensation philosophy, as set forth in Article 27 of the Board Regulations, provides that the remuneration of non-executive directors (*consejeros no ejecutivos*) shall be established in a manner that

provides incentives for our directors to be dedicated and involved while not creating an obstacle to their independence. To that end, Article 27 further establishes that the Board, following the advice of the Appointments and Remuneration Committee, shall take the necessary measures to ensure that non-executive directors' remuneration adheres to the following guidelines: (a) their remuneration should be relative to their dedication, abilities and functions; and (b) they are excluded from any plans (x) consisting of the delivery of equity awards or options or other instruments linked to the value of our shares, (y) linked to our performance or (z) including retirement benefits. However, non-executive directors may be remunerated with our shares only if they agree to hold them for the duration of the term that they hold their office.

In accordance with the compensation system outlined in the Articles of Association and the new Company's directors' remuneration policy, adopted at the general shareholders' meeting held on May 26, 2017, which is applicable during three fiscal years following the year of its approval, the shareholders set the maximum annual amount available for compensation to the non-executive directors at €100,000 per director, other than those non-executive directors of the Board that render remunerated professional services to us. Also, any director that is a member of one of the Board committees (Audit Committee and Appointments and Remuneration Committee) shall receive an additional gross annual remuneration of €25,000 as a result of the heavier workload (thus, the total remuneration would amount to €125,000). Similarly, the chairpersons of each Committee would receive an additional €25,000 for performing their duties as chairperson (thus, the total remuneration would amount to €150,000). The lead independent director would receive an additional remuneration amounting to €50,000 for performing his/her duties (thus, the total remuneration would amount to €150,000). Under no circumstances may the remuneration of a non-executive director exceed €150,000 per year.

As a result, in 2018, the following directors received compensation in their condition as such, namely, Ms. Anna Veiga Lluch (who is not currently a director), Mr. Steven F. Mayer, Mr. Luís Isasi Fernández de Bobadilla, Ms. Belén Villalonga Morenés, Ms. Marla E. Salmon, Ms. Carina Szpilka Lázaro and Mr. Iñigo Sánchez Asiaín Mardones.

As of October 2019, Ms. Enriqueta Felip Font, Mr. Luís Isasi Fernández de Bobadilla, Mr. Steven F. Mayer, Ms. Belén Villalonga Morenés, Ms. Marla E. Salmon, Ms. Carina Szpilka Lázaro and Mr. Iñigo Sánchez-Asiaín Mardones are our independent directors in conformity with Exchange Act requirements and NASDAQ Listing Rules. Messrs. Dagá, Glanzmann and Riera serve as external directors (and not independent) and Mr. Víctor Grifols Roura serves as proprietary director (and not independent) in conformity with Spanish rules.

The total compensation and service expenses related to our directors in 2018, in the aggregate, amounted to €6.7 million. Of the total director compensation amount, the executive directors (*consejeros ejecutivos*) and Mr. Ramón Riera Roca, who was an executive director until June 30, 2018, received €2.8 million (€1.8 million in fixed compensation in cash and €976,000 in variable compensation in cash for their service as executive directors). It must be noted that Mr. Ramón Riera Roca, who was an executive director until June 30, 2018, and the executive director Mr. Víctor Grifols Deu's RSUs allocated in fiscal year 2016, had a vesting period of 2 years and 1 day, and vested in 2018. Consequently, in 2018 both of them were awarded Class B shares with an equivalent value of €476,000 and €44,000, respectively. External directors (other than those who render remunerated professional service to us) received €844,000. These figures include accruals for contingent or deferred compensation. None of our directors received attendance fees for meetings of the Board or committees of the Board. Finally, pursuant to Article 20.*bis* of the Articles of Association, our directors are reimbursed for all expenses incurred in connection with their service as directors.

With respect to the €976,000 received by the executive directors and Mr. Ramón Riera Roca in variable compensation, this amount corresponds to 50% of the total amount of variable compensation in the case of the executive directors. The remaining 50% was paid in Class B ordinary shares with a vesting period for delivery of two years and one day. Mr. Ramón Riera received all of the variable compensation in cash.

The remuneration of the Chairman of the Board for year 2018 was a fixed annual amount of €965,000, as established under the Company's directors' remuneration policy. The Chairman of the Board will no longer receive a variable remuneration. The remuneration of Mr. Grifols has been determined taking into account his proven experience as director and Chairman of the Company, in addition to his knowledge in the sector where the Company operates. When deciding the remuneration of Mr. Grifols, which is the same fixed amount he had when he held an executive position, excluding any variable amount, the

additional duties that he will carry out, as well as those set out in the Spanish Companies' Act for the position of Chairman of the Board, were taken into account.

Additionally during 2018, the Chairman received payment for his executive role in certain activities in prior years. In March 2018 he received RSUs allocated in fiscal year 2016, which had a vesting period of 2 years and 1 day. Hence, in 2018 he was awarded Class B shares with an equivalent value of €645,000.

Compensation of Senior Management

In 2018, we incurred expenses related to the members of our senior management (excluding those who also serve as members of the Board) amounting to €16,070,290 in the aggregate. This figure includes accruals for contingent or deferred compensation earned in respect of 2018 service. The breakdown of the aggregate expense incurred related to such senior management for discharging their duties in 2018 is set forth in the table below.

Component	Expense Incurred in 2018
Salaries	€9,692,114
Variable Compensation	€6,378,176
Stock options and/or other securities	N/A
Other—e.g., life and health insurance	€106,713
Other—e.g., pensions/savings	€61,016

The above variable compensation includes €3,427,611 in RSUs allocated in fiscal year 2016, which had a vesting period of 2 years and 1 day, and have vested in 2018.

Salaries expensed in U.S. dollars have been calculated at the exchange rate between the U.S. dollar and the euro of U.S. $1.1533 to €1.00.

The Company has established a Restricted Share Unit Retention Plan, or RSU Plan, for eligible employees. Under the RSU Plan, an employee can elect to receive up to 50% of their yearly bonus in non-voting Class B shares or ADSs, and we will match their RSUs with an additional 50% of such employee's election of RSUs, or Additional RSUs. Our Class B shares and ADSs are valued at the date of payment of the bonus such employee has elected to receive and no cash dividends will be paid with respect to these shares. These RSUs will have a vesting period of two years and one day and will subsequently be exchanged for Class B shares or ADSs representing Class B shares. If an eligible employee leaves the Company, or is terminated before the end of the vesting period, they will not be entitled to the Additional RSUs. This commitment is treated as equity-settled and the total amount was €12,652,000. At December 31, 2018, the Company had settled the RSU Plan for an amount of €7,914,000.

Equity and Other Incentive Programs

In 2018, no compensation was recognized pursuant to a profit sharing plan or any stock option and no other equity compensation was awarded to any of our directors or senior management.

Employment and Severance Arrangements

We have entered into employment contracts with all members of our senior management that entitle them to unilaterally rescind their employment contracts and receive termination benefits of two to five years' salary in the event that the Company undergoes a change of control. In addition to this, six members of our senior management are contractually entitled to termination benefits of one to four years' salary under certain circumstances other than a change of control.

See **Note 29(c) and Note 31(a)** to our consolidated financial statements included in this offering memorandum for further details of payments received by employees.

Pension and Retirement Compensation Programs

Our directors and senior management employed by our U.S. subsidiaries participate in a tax-qualified 401(k) plan on the same terms as our other employees. The aggregate amount of employer contributions to the 401(k) plans for our directors and senior management during 2018 was €49,423.39 or $57,000. In addition, the Company made contributions to the pension plan of one member of senior management who resides in Canada, in the amount of €11,593 or CAD17,723. In 2018, neither we nor our subsidiaries set aside or accrued any other amounts to provide pension, retirement or similar benefits for our directors or senior management.

SECURITY OWNERSHIP OF MAJOR SHAREHOLDERS, DIRECTORS AND SENIOR MANAGEMENT

The following table sets forth certain information, including information regarding beneficial ownership of our Class A (voting) shares as of December 31, 2018, for (i) our major shareholders, including, in accordance with applicable Spanish regulations, each person or entity that is known to us to be the beneficial owner of more than 3% of our Class A shares or 1% of our Class A shares in the event of a person or entity domiciled in a tax haven (ii) each of our directors and (iii) each member of our senior management. As of that date, there were a total of 426,129,798 Class A shares issued and outstanding.

Since our Class A shares are represented through book entries, their exact ownership structure cannot be known, except through the information that the shareholders provide voluntarily or in compliance with applicable regulations, and information provided by the *Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A.*, or Iberclear, on which the shares are settled and cleared, and its participant entities (*entidades participantes*).

Beneficial ownership is determined in accordance with applicable Spanish regulations.

Name of Beneficial Owner	Number of Ordinary Shares	Percentage of Ordinary Shares
Major Shareholders		
Deria S.A.[1]	37,970,661	8.91
Scranton Enterprises B.V.[2]	36,953,048	8.67
Thorthol Holdings B.V.[3]	30,085,532	7.06
Núria Roura Carreras[4]	26,224,374	6.15
Blackrock, Inc.[5]	18,748,942	4.40
Oppenheimerfunds Inc.[6]	13,064,750	3.07
Jupiter Fund Management PLC[7]	12,967,000	3.04
Ako European Long-Only Master Fund Ltd[8]	4,349,404	1.02
Fidelity International Limited[9]	4,364,423	1.02
Directors		
Víctor Grifols Roura	880,900	*
Ramón Riera Roca	338,170	*
Thomas H. Glanzmann[10]	167,122	*
Tomás Dagá Gelabert	103,796	*
Anna Veiga Lluch	200	*
Luís Isasi Fernández de Bobadilla	200	*
Víctor Grifols Deu	14,620	*
Steven F. Mayer	—	—
Belén Villalonga Morenés	—	—
Marla E. Salmon	—	—
Iñigo Sánchez-Asiaín Mardones	—	—
Raimon Grifols Roura	2,780	*
Carina Szpilka Lázaro	1,490	—
Senior Management		
Gregory Gene Rich	239,200	*
Vicente Blanquer Torre	44,754	
David Ian Bell	20,000	*
Nuria Pascual Lapeña	19,592	*
Mateo Florencio Borrás Humbert	982	*
Alfredo Arroyo Guerra	—	—
Lafmin Morgan	—	—
Carsten Schroeder	—	—
Miquel Pascual Montblanch	15,000	*
Jose Oriol Duñach Fulla	30,418	*
Eduardo Herrero Jiménez	—	
Daniel Fleta Coit	—	
Robert Jagt	—	
Luis Twose Garçon	—	
Joel Abelson	—	
Alberto Grifols Roura	27,000	
Matt Murawski	—	
Maria Teresa Rioné Llano	664	
Albert Grifols Coma-Cros	84,000	
Xavier Sueiras Gil	—	

* Less than 1%.

(1) The various members of the Grifols Roura family hold their respective shares indirectly through Deria S.A.

(2) Scranton Enterprises B.V. is a corporation whose shares are owned by certain of our directors. Some Grifols family members who are directors or executive officers hold part of their shares indirectly through Scranton Enterprises B.V.

(3) The various members of the Grifols Gras family hold their respective shares indirectly through Thorthol Holdings B.V.

(4) 26,224,374 Class A shares are held directly by Rodellar Amsterdam B.V., through which Núria Roura Carreras exercises indirect voting rights.

(5) Blackrock, Inc. has indirect voting rights over 18,748,942 of our Class A shares.

(6) As of December 31, 2018, Oppenheimerfunds Inc. had indirect voting rights over 13,064,750 of our Class A shares. As of May 25, 2019, Invesco Ltd became a significant shareholder due to a merger between Oppenheimefunds Inc. and Invesco Ltd, with Invesco Ltd as the surviving entity. As of the date of this report, Invesco Ltd has indirect voting rights over 13,478,188 of our Class A shares.

(7) Jupiter Fund Management PLC has indirect voting rights over 12,967,000 of our Class A shares.

(8) Ako European Long-Only Master Fund Ltd has indirect voting rights over 4,349,404 of our Class A shares. As of the date of this report, Ako European Long-Only Master Fund Ltd holds less than 1% of Class A shares. As of January 29, 2019, it has indirect voting rights over 4,258,245 of our Class A shares.

(9) Fidelity International Limited has indirect voting rights over 4,364,423 of our Class A shares.

(10) 24,000 Class A shares are held indirectly through Glanzmann Enterprises AG, and 106,000 Class A shares are held indirectly through Opulenta Holdings Ltd.

To our knowledge, we are not controlled, directly or indirectly, by any other corporation, government or any other natural or legal person. We do not know of any arrangements which would result in a change in our control.

Significant Changes in Ownership

In accordance with Spanish reporting requirements, the following transfers of shares were reported to the Spanish National Securities Market Commission (*Spanish Comisión Nacional del Mercado de Valores*), or ("CNMV"), as of December 31, 2018: Oppenheimer International Growth Fund communicated to the Spanish National Securities Market Commission that on May 21, 2018 its holding of Class A shares fell below 3%.

Fidelity International Limited communicated to the CNMV that on August 20, 2018 its holding of Class A shares fell below 1%. Fidelity International Limited communicated to the CNMV that on October 23, 2018 its holding of Class A shares reached above 1%. Ako European Long-Only Master Fund Ltd communicated to the CMNV that on November 15, 2018 its holding of Class A shares reached above 1%.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Sale of Haema and Biotest US Corporation

In December 2018, we sold our 100% equity interest in Haema and Biotest US Corporation to Scranton Plasma B.V. ("Scranton Plasma"), one of our major shareholders and a related party, for a total of $538 million. Scranton Enterprises B.V. financed the purchase in part through a loan from Grifols Worldwide Operations Limited for an initial principal sum of the euro equivalent of $95 million, with an interest rate of EURIBOR plus 200 basis points. As of June 30, 2019, the euro equivalent of $95 million was outstanding on the loan.

We will have the ability to repurchase the shares sold to Scranton Plasma at any time. Our Plasma Supply Agreement in place with Haema and Biotest US has been extended for a 30-year period and we continue to operate the companies' plasma centers.

Plasma Supply Commitment Purchase Agreement

In July 2019, we entered into an agreement with Scranton Plasma, a wholly owned subsidiary of one of our shareholders and a related party, and the agent of the lenders for a loan agreement under which Scranton Plasma borrowed $400 million in principal amount. Pursuant to this agreement, under certain circumstances, we would repay the outstanding balance under the loan, in exchange for which Scranton Plasma would automatically and irrevocably assign its right to receive 3 million liters of plasma to us and the loan would be terminated.

Charitable Contributions

In 2018, we contributed to two charitable foundations, the Mr. Víctor Grifols i Lucas Foundation and the Probitas Private Foundation, which were formed by us, and certain of our current officers and directors serve as patrons of the Probitas Private Foundation.

The Mr. Víctor Grifols i Lucas Foundation provides grants to further the study of bioethics. It was created in 1998 with the mission of promoting bioethics through dialogue between specialists in a range of areas. The Víctor Grifols i Lucas Foundation seeks to foster ethical attitudes in organizations, companies and individuals active in the field of human health, offering a discussion platform that provides a forum for the exchange of different perspectives. Mr. Víctor Grifols i Lucas is our former Chief Executive Officer and is the father of both Mr. Raimon Grifols Roura, our Chief Executive Officer, and Mr. Víctor Grifols Roura, a proprietary director and non-executive Chairman of the Board. We contributed €0.4 million, €0.4 million and €0.4 million to the Víctor Grifols i Lucas Foundation in 2018, 2017 and 2016, respectively.

The Probitas Private Foundation provides medical and sanitary assistance to international communities that lack medical and sanitary resources or that have an urgent and essential need for such services due to catastrophes. The Probitas Private Foundation was founded by us in 2008. Messrs. Raimon Grifols Roura, our Chief Executive Officer, and Tomás Dagá Gelabert, one of our directors, are patrons of the Probitas Private Foundation. We contributed €3.8 million, €6.8 million and €4.9 million to the Probitas Private Foundation in 2018, 2017 and 2016, respectively. We contribute to the Probitas Private Foundation an amount equal to 0.7% of our profits before tax each year.

The Jose Antonio Grifols Lucas Foundation provides grants for education and research into the science of plasmapheresis. Additionally, the foundation assists plasma donors who may be unable to care for themselves. We did not contribute to the Jose Antonio Grifols Lucas Foundation in 2015, 2016 and 2017.

Consultant Agreement

In 2011, subsequent to the Talecris acquisition, one of our directors entered into a consulting services contract for a term of three years, pursuant to which he received compensation in the amount of $1.0 million per year with an additional $2.0 million payable upon the fulfillment of certain conditions. In 2015, we extended this contract for a term of two years. In each of 2016, 2017 and 2018 we incurred an expense of $1.0 million pursuant to this agreement. The consulting services contract will not be renewed during 2019.

Loans

We have not extended any advances or loans to members of the Board or key management personnel nor have we assumed any guarantee commitments on their behalf. We also have not assumed any pension or life insurance obligations on behalf of former or current members of the Board or key management personnel.

European Investment Bank Term Loans

On October 28, 2015, Grifols Worldwide Operations Limited entered into a loan agreement with the European Investment Bank for a term loan of €100 million under the European Fund for Strategic Investments, or the 2015 European Investment Bank Term Loan, which was amended on December 5, 2017. The financial terms of the loan agreement include a fixed interest rate of 2.40% for a tenor of ten years from October 28, 2015, and a repayment schedule with amortization in years three through ten. The proceeds of this loan are being used to support our research and development, primarily focusing on the search for new indications for plasmatic proteins, including the treatment of Alzheimer's disease, vascular disease, cardiovascular surgery and arterial thrombosis, amongst others.

On December 5, 2017, Grifols obtained a new long-term loan with the European Investment Bank totaling €85 million, or the 2017 European Investment Bank Term Loan. The financial terms of the loan include a fixed interest rate of 2.019% for a tenor of ten years and a two-year grace period. The proceeds of this loan are being used for research and development initiatives, notably the discovery and development of new products (plasma proteins), the finding of new therapeutic indications for existing plasma proteins and the improvement of manufacturing processes to increase yields, safety and efficiency.

On September 7, 2018, Grifols obtained a new long-term loan with the European Investment Bank totaling €85 million, together with the 2015 European Investment Bank Term Loan and the 2017 European Investment Bank Term Loan, the "European Investment Bank Term Loans". The financial terms of the loan agreement include a fixed interest rate of 2.145% for a tenor of 10 years and a two-year grace period. The proceeds of this loan are being used for research and development initiatives, notably the discovery of new therapeutic indications for plasma-derived protein therapies.

The European Investment Bank Term Loans are secured by a perfected first priority security interest (subject to permitted liens, as defined in the documentation governing the European Investment Bank Term Loans) on the same collateral securing the New Credit Facilities and the Notes, subject to a customary pari passu intercreditor agreement entered into by and among Grifols, S.A., Grifols Worldwide Operations Limited, certain subsidiaries of Grifols, S.A. party thereto, the European Investment Bank, Bank of America, N.A., as collateral agent under the New Credit Facilities and the Trustee.

Current Credit Facilities

On January 31, 2017 we entered into the Current Credit Facilities with a syndicate led by Nomura Securities International, Bank of America Merrill Lynch International, Bank of America, Goldman Sachs Bank USA and HSBC Bank USA, N.A., as the arrangers, which consists of the "Senior Term Loans" and the "Revolving Loans". The initial Senior Term Loans were fully drawn down on January 31, 2017, and the incremental Senior Term Loans in an aggregate principal amount of $175 million were further drawn down on February 14, 2017. The tranche A term loans were in original principal amounts equal to $2,350 million and €607 million, the tranche B term loans were in original principal amount equal to $3.0 billion and the Revolving Loans amounted to $300 million equivalent in multicurrencies. The interest rates on the Senior Term Loans and the Revolving Loans are based on (a) in the case of dollar denominated loans, the base rate (the greatest of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) the applicable LIBOR rate plus 1.00%) plus an applicable margin or (b) the applicable LIBOR rate, plus an applicable margin. The applicable margin for loans at the LIBOR rate is (a) 1.75% for the multicurrency revolving loans and the tranche A term loan and (b) 2.25% for the tranche B term loan. The proceeds from the offering of the Notes and the New Credit Facilities will be used in part to refinance the Current Credit Facilities.

New Credit Facilities

Substantially concurrent with the completion of this offering, we will enter into the New Credit Facilities with a syndicate led by Bank of America, N.A., as Administrative Agent and Collateral Agent, Bank of America Merrill Lynch International Limited Designated Activity Company, Bank of America, N.A., BNP Paribas S.A., Sucursal en España, HSBC Bank USA, N.A., HSBC France, Banco Bilbao Vizcaya Argentaria S.A. and J.P. Morgan Securities plc as Joint Lead Arrangers and Joint Bookrunners and Bank of America, N.A., as Syndication Agent, which consists of the "Senior Term Loans" and the "Revolving Loans". The Senior Term Loans will be fully drawn down substantially concurrently with the completion of this offering. The U.S. dollar tranche B term loans, in original principal amount equal to $2.5 billion, will

mature eight years from the date they are drawn and will have a repayment schedule with quarterly amortization equal to 1.0% per annum of the original principal amount, with the remainder to be paid at maturity. The Euro tranche B term loans, in original principal amount equal to the Euro equivalent of $1.5 billion, will mature eight years from the date they are drawn and will have a repayment schedule with quarterly amortization equal to 1.0% per annum of the original principal amount, with the remainder to be paid at maturity. The Revolving Loans, which amount to $500 million equivalent in multicurrencies, are available during the period commencing from the date they are entered into and ending on the sixth anniversary of the closing.

The interest rates on the Senior Term Loans and the Revolving Loans are based on in the case of dollar denominated loans, (a) the base rate (the greatest of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) the applicable LIBOR rate plus 1.00%) plus an applicable margin or (b) the adjusted Eurocurrency rate, plus an applicable margin and in the case of euro denominated loans, the adjusted Eurocurrency rate, plus an applicable margin.

Borrowings under the New Credit Facilities are subject to mandatory prepayment upon the occurrence of certain events, including the incurrence of certain debt and the sale or other disposition of certain assets. In addition, a portion of the borrowings under the New Credit Facilities are subject to mandatory prepayment in the event we have excess cash flow, as defined therein. Both the Senior Term Loans and the Revolving Loans are guaranteed by Grifols, S.A. and certain subsidiaries of Grifols, S.A. that together with Grifols, S.A. represent, in the aggregate, at least 70% of the consolidated adjusted EBITDA, as defined in the agreements, of Grifols, S.A. and its subsidiaries, and are secured by a perfected first priority security interest (subject to permitted liens, as defined in the New Credit Facilities) in all of the tangible and intangible assets of the U.S. credit parties and plasma inventory of the Foreign Borrower, as defined therein and pledges of equity of certain subsidiaries of Grifols, S.A. (subject to certain exclusions and limitations). The New Credit Facilities require the borrowers to ensure that the aggregate consolidated adjusted EBITDA attributable to the guarantors of the New Credit Facilities as a group is no less than 70% of the consolidated adjusted EBITDA of Grifols, S.A. and its subsidiaries.

The New Credit Facilities include customary affirmative and negative covenants and events of default. Negative covenants include, among other limitations, limitations on additional debt, liens, asset sales and affiliate transactions. Events of defaults include, among other events, violation of covenants, material breaches of representations, cross default to other material debt, bankruptcy and insolvency and material judgments.

The terms of the New Credit Facilities contain limitations on our ability to pay ordinary dividends. We may pay dividends (a) so long as the leverage ratio is not greater than 7.0x (whether or not then tested) on a pro forma basis after giving effect to such dividend payment as of the last day of the fiscal quarter most recently ended in the ordinary course of business consistent with past practices in an amount not to exceed in respect of any fiscal year, 40% of the consolidated net income of Grifols, S.A. and its subsidiaries for such fiscal year, which may be paid in installments, the first, no earlier than December of such fiscal year and the last, no later than the following fiscal year or (b) whether or not in the ordinary course of business so long as after giving effect thereto, the leverage ratio is not greater than 3.75x.

The borrower under the U.S. dollar tranche B facility is Grifols Worldwide Operations USA, Inc., a Delaware corporation and a direct wholly owned subsidiary of Grifols Worldwide Operations Limited, an Irish entity and our wholly owned direct subsidiary. The borrower under the Euro tranche B facility is Grifols, S.A. The borrower under the revolving facility is Grifols Worldwide Operations Limited. The New Credit Facilities are governed by New York law, however, certain collateral documents are governed under the local law of other jurisdictions.

The New Credit Facilities are secured by a perfected first priority security interest (subject to permitted liens, as defined in the New Credit Facilities) on the same collateral securing the European Investment Bank Term Loans and the Notes, subject to a customary pari passu intercreditor agreement entered into by and among Grifols, S.A., Grifols Worldwide Operations Limited, certain subsidiaries of Grifols, S.A. party thereto, the European Investment Bank, Bank of America, N.A., as collateral agent under the New Credit Facilities and the Trustee.

The 2017 Notes

On April 26, 2017, Grifols, S.A. issued €1.0 billion senior unsecured notes, or the 2017 Notes, that will mature on May 1, 2025 and bear interest at 3.20% per annum. The 2017 Notes were exchanged for 97.1%

of the $1.0 billion senior unsecured notes issued in March 2014 by Grifols Worldwide Operations Limited, a 100% subsidiary of Grifols, S.A. with a maturity in 2022 and bearing interest at 5.25% per annum, or the 2014 Notes. The remaining 2.9% of the 2014 Notes was redeemed before the exchange in an amount of €27 million. On May 2, 2017, the 2017 Notes were listed on the Global Exchange Market of Euronext Dublin. This exchange has allowed us to reduce our finance costs and extend our maturities.

The 2017 Notes pay interest semi-annually in arrears on May 1 and November 1, commencing on November 1, 2017. The 2017 Notes are guaranteed on a senior unsecured basis by Grifols, S.A. and the subsidiaries of Grifols, S.A. that are guarantors and co-borrowers under the New Credit Facilities. As of the date of this offering memorandum, the 2017 Notes are guaranteed by Biomat USA, Inc., Grifols Biologicals LLC, Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics LLC, Instituto Grifols, S.A., Grifols USA, LLC, Grifols Worldwide Operations Limited and Grifols Worldwide Operations USA, Inc.

Grifols, S.A. may redeem the 2017 Notes, in whole or in part, at any time on and after May 1, 2020, at the redemption prices (expressed as percentages of principal amount) set forth below plus accrued and unpaid interest, if any, on the 2017 Notes redeemed, to the applicable redemption date, if redeemed during the twelve-month period beginning on May 1 of the years indicated below:

Fiscal Year	Percentage
2020	101.600%
2021	100.800%
2022 and thereafter	100.000%

Grifols, S.A. may redeem up to 40% of the outstanding 2017 Notes with money raised in one or more equity offerings by Grifols, S.A. at any time (which may be more than once) prior to May 1, 2020, as long as at least 60% of the aggregate principal amount of 2017 Notes issued remains outstanding immediately following any such offerings.

Grifols, S.A. may redeem some or all of the 2017 Notes at any time prior to May 1, 2020 at a price equal to 100% of the principal plus a premium as defined under the indenture (computed using a discount rate equal to the Bund rate as of such redemption date plus 0.50%), plus accrued and unpaid interest, if any.

Grifols, S.A. is not required to make mandatory redemption or sinking fund payments with respect to the 2017 Notes.

If Grifols, S.A. experiences a change of control, it must give holders of the 2017 Notes the opportunity to sell to us their 2017 Notes at 101% of their face amount, plus accrued and unpaid interest.

Grifols, S.A. and the guarantors of the 2017 Notes may incur additional indebtedness if the fixed charge coverage ratio (as defined in the indenture governing the 2017 Notes) for Grifols, S.A. and the restricted subsidiaries (as defined in the indenture governing the 2017 Notes) on a consolidated basis for the most recently ended four full fiscal quarters immediately preceding the date on which such additional indebtedness is incurred would have been at least 2.00 to 1.00, determined on a *pro forma* basis.

The indenture governing the 2017 Notes contains certain covenants limiting, subject to exceptions, carve-outs and qualifications, Grifols, S.A.'s ability and its restricted subsidiaries' ability to: (i) pay dividends or make certain other restricted payments or investments; (ii) incur additional indebtedness or provide guarantees of indebtedness and issue disqualified stock; (iii) create liens on assets; (iv) merge, consolidate, or sell all or substantially all of our and our restricted subsidiaries' assets; (v) enter into certain transactions with affiliates; (vi) create restrictions on dividends or other payments by our restricted subsidiaries; and (vii) create guarantees of indebtedness by restricted subsidiaries. The indenture also contains certain customary events of default.

Other Debt

Certain other credit facilities and capital lease obligations are in place with various lenders and consist of long-term and short-term indebtedness of both us and Grifols, S.A. subsidiaries. As of December 31, 2018, we have €16.3 million of aggregate short-term credit under these facilities. The short-term credit facilities have maturity dates occurring in the next 12 months.

DESCRIPTION OF NOTES

Grifols, S.A. (the "*Company*"), a company organized under the laws of Spain, will issue the senior secured notes due 2025 (the "*2025 notes*") and the senior secured notes due 2027 (the "2027 notes" and together with the 2025 notes the "Notes" and each a "series of notes") pursuant to a senior secured notes Indenture (the "*Indenture*") between the Company, the Guarantors, BNY Mellon Corporate Trustee Services Limited, a limited company organized under the laws of England and Wales and having its registered office at One Canada Square, London E14 5AL, as Trustee (the "*Trustee*") and The Bank of New York Mellon, London Branch, a limited company organized under the laws of England and Wales, as security agent (the "*Notes Collateral Agent*"), in a private transaction that is not subject to the registration requirements of the Securities Act. Holders of the notes of either series will not be entitled to any registration rights. See "Notice to Investors". The terms of the notes include those set forth in the Indenture. The Indenture will not be qualified under, and will not incorporate or include any of the provisions of the U.S. Trust Indenture Act of 1939, as amended.

Certain terms used in this description are defined under the subheading "—Certain Definitions." In this description, the word "*Company*" refers only to Grifols, S.A. and not to any of its subsidiaries. The words "*we*," "*us*" and "*our*" each refer to the Company and its consolidated subsidiaries.

The following description is only a summary of the material provisions of the Indenture, the Security Documents and the Pari Passu Intercreditor Agreement. We urge you to read the Indenture, the Security Documents and the Pari Passu Intercreditor Agreement because they, not this description, define your rights as Holders of a series of notes. You may request copies of the Indenture, the Security Documents and the Pari Passu Intercreditor Agreement at our address set forth under the heading "Where You Can Find More Information."

Brief Description of the Notes and the Guarantees

The Notes

The notes will be:

- general senior obligations of the Company;
- secured on a first-priority basis by the Collateral, subject to Permitted Liens;
- senior in right of payment to all of the Company's existing and any future Subordinated Indebtedness;
- *pari passu* in right of payment with all of the Company's existing and any future senior Indebtedness that is not by its terms expressly subordinated to the notes, including the Company's Obligations under the Credit Agreement and the Existing Notes;
- effectively junior in right of payment to the Company's existing and future secured Indebtedness that is secured by assets that do not secure the notes to the extent of the value of the collateral securing such Indebtedness;
- unconditionally guaranteed by the Company's Restricted Subsidiaries that Guarantee the Obligations under the Credit Agreement (other than any Immaterial Subsidiary of the Company), Grifols Worldwide Operations Limited, a private limited company validly incorporated and existing under the laws of Ireland, a co-borrower under the Credit Agreement and a wholly-owned subsidiary of the Company ("*GWWO*") and Grifols Worldwide Operations USA, Inc., a co-borrower under the Credit Agreement and a wholly-owned Subsidiary of the GWWO ("*Grifols Worldwide Operations USA*"); and
- structurally subordinated to Indebtedness of Subsidiaries of the Company that are not Guarantors.

The Guarantees

Each Guarantee of the notes will be:

- a general senior obligation of each Guarantor;
- secured on a first-priority basis by the Collateral owned by each Guarantor, subject to Permitted Liens;
- senior in right of payment to all existing and any future Subordinated Indebtedness of such Guarantor;

- *pari passu* in right of payment with all existing and any future Indebtedness of that Guarantor that is not by its terms expressly subordinated to its Guarantee of the notes, including Indebtedness under the New Credit Facilities and the Existing Notes;
- effectively junior in right of payment to the existing and future secured Indebtedness of that Guarantor that is secured by assets that do not secure such Guarantee to the extent of the value of the collateral securing such Indebtedness; and
- structurally subordinated to Indebtedness of any Subsidiaries of that Guarantor that are not Guarantors.

As of June 30, 2019, on an as adjusted basis after giving effect to the Transactions, the Company and its subsidiaries on a consolidated basis would have had approximately €7.5 billion of indebtedness outstanding (including the notes offered hereby), of which approximately €6.3 billion would have been secured indebtedness (excluding approximately $500 million of undrawn revolving commitments under the Credit Agreement). Our Non-Guarantor subsidiaries represented €302 million or 24.7% of our Published EBITDA and 94 million or 15.8% of our profit after income tax from continuing operations for the year ended December 31, 2018, €182 million, or 26.2% of our Published EBITDA and 64 million or 21.8% of our profit after income tax from continuing operations for the six-month period ended June 30, 2019, 35.5% of our revenue for the year ended December 31, 2018, 31.5% of our revenue for the six-month period ended June 30, 2019, €4,822 million, or 38.7% of our total assets as of December 31, 2018 and €5,186 million, or 38.9% of our total assets as of June 30, 2019.

Principal, Maturity and Interest

The Company will issue the 2025 notes initially in the aggregate principal amount of €905,000,000 and will issue the 2027 notes initially in the aggregate principal amount of €770,000,000. The 2025 Notes and the 2027 Notes will constitute separate series of notes under the Indenture but, except as otherwise provided below, will be treated as a single class for all purposes under the Indenture. The Company may issue additional notes of either series under the Indenture from time to time. Any offering of additional notes of a series is subject to compliance with the covenant described below under the caption "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock."

2025 notes offered hereby and any additional 2025 notes subsequently issued under the Indenture will be treated as a single class (except as otherwise provided) for all purposes under the Indenture, including waivers, amendments, redemptions and offers to purchase; *provided*, *however*, that a separate Common Code or ISIN will be issued for the additional 2025 Notes, unless the 2025 notes and the additional 2025 note are treated as fungible for U.S. federal income tax purposes. 2027 notes offered hereby and any additional 2027 notes subsequently issued under the Indenture will be treated as a single class (except as otherwise provided) for all purposes under the Indenture, including waivers, amendments, redemptions and offers to purchase; *provided*, *however*, that a separate Common Code or ISIN will be issued for the additional 2027 Notes, unless the 2027 notes and the additional 2027 note are treated as fungible for U.S. federal income tax purposes. Unless the context requires otherwise, references to "notes" for all purposes of the Indenture, the Guarantees and this "Description of Notes" include any additional notes that are actually issued.

The Company will issue notes of each series in minimum denominations of €100,000 and integral multiples of €1,000 in excess thereof. The 2025 notes will mature on February 15, 2025 and the 2027 notes will mature on November 15, 2027.

Interest on the 2025 notes will accrue at the rate of 1.625% per annum and will be payable semi-annually in arrears on February 15 and August 15, commencing on February 15, 2020. Interest on the 2027 notes will accrue at the rate of 2.250% per annum and will be payable semi-annually in arrears on May 15 and November 15, commencing on May 15, 2020. The Company will make each interest payment to the Holders of record of the 2025 Notes on the immediately preceding February 1 and August 1. The Company will make each interest payment to the Holders of record of the 2027 Notes on the immediately preceding May 1 and November 1.

Interest on each series of notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

Methods of Receiving Payments on the Notes

If a Holder has given wire transfer instructions to us, we will pay all principal, interest, premium, if any, on that Holder's notes in accordance with those instructions. All other payments on each series of notes will be made at the office or agency of the paying agent and registrar in London unless the Company elects to make interest payments by check mailed to the Holders at their address set forth in the register of Holders.

Paying Agent, Notes Collateral Agent and Registrar for the Notes

The Bank of New York Mellon, London Branch will initially act as paying agent and Notes Collateral Agent and The Bank of New York Mellon SA/NV, Luxembourg Branch will initially act as registrar on each series of notes. The Company may change the paying agent or registrar with respect to a series without prior notice to the Holders of the notes of such series, and the Company or any of its Subsidiaries may act as paying agent or registrar.

Security

Each series of notes, Guarantees and the other Notes Obligations will have the benefit of the Collateral, as to which the holders of each series of notes, the holders of the Senior Credit Facilities Obligations, the holders of the EIB Obligations and future Other Pari Passu Lien Obligations (if any) will have a first-priority security interest (subject to Permitted Liens).

Collateral

The Collateral will be pledged as collateral to the Notes Collateral Agent and/or the Trustee for the benefit of the Trustee, the Notes Collateral Agent, and the Holders of the notes of each series. The Collateral will also be pledged as collateral to the Senior Credit Facilities Collateral Agent for the benefit of the Senior Credit Facilities Obligations and to EIB for the benefit of the holders of the EIB Obligations. Each series of notes and Guarantees, together with the Senior Credit Facilities Obligations, the EIB Obligations and future Other Pari Passu Lien Obligations (if any), will be secured by first-priority security interests in the Collateral, subject to Permitted Liens.

Following the Issue Date, the Collateral generally will consist of (i) the equity of GWWO, Grifols International S.A., a *sociedad anónima* organized under the laws of Spain, and a wholly-owned subsidiary of the company, *Instituto Grifols, S.A. a sociedad anónima* organized under the laws of the Kingdom of Spain, and a wholly-owned subsidiary of the Company, Grifols Worldwide Operations USA. Inc. and the Guarantors, (ii) with respect to any Guarantor that is organized under the laws of the United States, substantially all assets of such Subsidiary Guarantor (other than real property), (iii) any fee-owned Real Estate Asset owned by the Issuer or the Guarantors and located in the United States or any state, district or territory thereof having an acquisition cost thereof in excess of $200.0 million as of the date of the acquisition thereof as well as two parcels of real property owned by the Guarantors located in North Carolina, USA that are currently securing the existing credit facility, and (iv) the blood plasma inventory located in the United States or any state, district or territory thereof and Spain owned by GWWO and (v) with respect to any assets or property acquired, developed or created after the Issue Date, that is owned by the Company or any Subsidiary thereof organized in any jurisdiction other than the United States such assets of such Person subject to customary exceptions including the Agreed Security Principles described in "Risk Factors—Risks Relating to the Notes—The Agreed Security Principles set out a number of limitations on the rights of the holders of the Notes," and in no event including any Excluded Assets.

Initially, other than Indebtedness secured by Permitted Liens, only the notes, the Guarantees, the other Notes Obligations, the Senior Credit Facilities Obligations and the EIB Obligations will have the benefit of the first-priority security interest in the Collateral. Except for Indebtedness secured by Permitted Liens (including, the Senior Credit Facilities Obligations, the EIB Obligations and, subject to the terms described herein, future Indebtedness constituting Other Pari Passu Lien Obligations), no other Indebtedness incurred by the Company or any Guarantor may share in the first-priority security interest in the Collateral.

Any additional Indebtedness that is incurred by the Company or any Guarantor in compliance with the terms of the Indenture may also be given a Lien on and security interest in the Collateral that ranks senior, pari passu or junior to the Lien of the Noteholder Secured Parties (as defined below) in the Collateral. See "—Certain Covenants—Liens".

Certain Perfection Items

We do not expect that mortgages or title insurance policies on all of our material properties will be in place at the Issue Date and some security interest over certain Collateral may be granted and/or perfected after the Issue Date. See "Risk Factors—Risks Related to the Notes—Any issues that we are not able to resolve in connection with the issuance of such mortgages and title policies may impact the value of the collateral. Delivery of such mortgages after the Issue Date increases the risk that the liens granted by those mortgages could be avoided."

Impairment of Collateral

The Company will not and will not permit any of its Restricted Subsidiaries to grant any Person or permit any Person to retain (other than the applicable agent), any Liens on the Collateral, other than Permitted Liens. The Company and each Guarantor will, at its sole cost and expense, execute and deliver all such agreements and instruments as necessary, or as the Trustee or the Notes Collateral Agent reasonably requests, to more fully or accurately describe the assets and property intended to be Collateral or the obligations intended to be secured by the Security Documents.

Maintenance of Collateral

The Indenture, subject to certain exceptions, will provide that the Company and the Guarantors shall maintain the Collateral in good, safe and insurable operating order, condition and repair (ordinary wear and tear excepted) and the Security Documents, subject to certain exceptions, will provide that the Issuer and the Guarantors shall execute and deliver all further instruments and documents to the extent necessary to comply with the further assurances covenant in the Indenture. The Indenture, subject to certain exceptions, will also provide that the Company and the Guarantors shall pay all real estate and other taxes (except such as are contested in good faith and by appropriate negotiations or proceedings), and maintain in full force and effect all material permits and certain insurance coverages.

Collateral Documents and Certain Related Intercreditor Provisions

The Company, the Guarantors and the Notes Collateral Agent and/or the Trustee (on behalf of the Trustee and the Holders of the notes) will enter into one or more Collateral Documents creating and establishing the terms of the security interests that secure the notes and the Guarantees. These security interests will secure the payment and performance when due of all of the obligations of the Company and the Guarantors under each series of notes, the Indenture, the Guarantees and the Collateral Documents (with some exceptions), as provided in the Collateral Documents. The Trustee, the Notes Collateral Agent and each holder of notes of a series and each other holder of, or obligee in respect of, any Obligations in respect of the notes outstanding at such time are referred to collectively as the "*Noteholder Secured Parties*".

Possession of the Collateral

Subject to the terms of the Collateral Documents, and unless an Event of Default shall have occurred and be continuing and the Notes Collateral Agent or, subject to the provisions of the Pari Passu Intercreditor Agreement, the Senior Credit Facilities Collateral Agent shall have commenced enforcement of remedies with respect to the Collateral, the Company and the Guarantors will have the right to remain in possession and retain exclusive control of the Collateral securing the Obligations under the notes, the Guarantees and the Indenture, to freely operate the Collateral and to collect, invest and dispose of any income therefrom. See "Risk Factors—Risks Relating to the Notes—Sales of assets by the Issuer and the Guarantors could reduce the Collateral and the Guarantees".

Further Assurances and After-Acquired Property

Subject to the applicable limitations set forth in the Collateral Documents and the Indenture (including the Agreed Security Principles and limitations with respect to Excluded Assets), (i) each of the Company and the Guarantors will execute any and all further documents, financing statements, agreements and instruments, and take all such further actions (including the filing and recording of financing statements, fixture filings, mortgages, deeds of trust and other documents), that may be required under any applicable law, to grant, preserve, protect and perfect the validity and priority of the security interests created or intended to be created by the Collateral Documents in the Collateral, all at the expense of the Company and (ii) if, after the Issue Date, any material assets (other than Excluded Assets), are acquired by the Company or are held by any Subsidiary on or after the time it becomes a Guarantor pursuant to the

Indenture (other than assets constituting Collateral under a Collateral Document that becomes subject to the Lien created by such Collateral Document upon acquisition thereof or assets constituting Excluded Assets), the Company will notify the Notes Collateral Agent thereof, and, if the Company has granted a security interest in such asset to the Senior Credit Facilities Collateral Agent to secure the Senior Credit Facilities Obligations, the Company will cause such assets to be subjected to a Lien securing the Secured Obligations and will take and cause the Company to take, such actions as shall be necessary to grant and perfect such Liens, all at the expense of the Company.

Pari Passu Intercreditor Arrangements

The Notes Collateral Agent will enter into the pari passu intercreditor agreement (the "*Pari Passu Intercreditor Agreement*"), dated as of the Issue Date, among the Company, the other grantors party thereto, the Notes Collateral Agent, the Senior Credit Facilities Collateral Agent and EIB. By their acceptance of the notes of a series, the holders of the notes of such series will agree to be bound by the terms of the Pari Passu Intercreditor Agreement and will be deemed to have authorized and directed the Notes Collateral Agent to execute, deliver and perform its obligations under the Pari Passu Intercreditor Agreement. The term "Collateral" as used in the description of the Pari Passu Intercreditor Agreement means the Collateral on which the collateral agents of any series of obligations (including the notes, the Senior Credit Facilities Obligations, the EIB Obligations and the Other Pari Passu Obligations) covered thereby (the "*Series of Obligations*") have a Lien. Under the Pari Passu Intercreditor Agreement, the Holders will be represented by the Notes Collateral Agent, the holders of the Senior Credit Facilities Obligations will be represented by the Senior Credit Facilities Collateral Agent, EIB will be represented by EIB and any holders of Other Pari Passu Obligations will be represented by their respective representative party to the Pari Passu Intercreditor Agreement (each, an "*Authorized Representative*"). The Pari Passu Intercreditor Agreement will provide for the priorities and other relative rights among the holders of the notes, the holders of the Senior Credit Facilities Obligations and the holders of the EIB Obligations, including, among other things, that:

- notwithstanding the date, time, method, manner or order of grant, attachment or perfection of any Liens securing any Series of Obligations granted on the Shared Collateral and notwithstanding any provision of the Uniform Commercial Code of any jurisdiction, or any other applicable law or the related security agreements or any defect or deficiencies in the Liens securing any Series of Obligations or any other circumstance whatsoever, the Liens securing each Series of Obligations on any Shared Collateral shall be of equal priority; and
- the Obligations in respect of either series of notes, the Senior Credit Facilities Obligations and the EIB Obligations and the Other Pari Passu Lien Obligations may be increased, extended, renewed, replaced, restated, supplemented, restructured, repaid, refunded, refinanced or otherwise amended or modified from time to time, in each case, to the extent permitted by the Indenture, the Credit Agreement and the EIB Documents.

The EIB Obligations benefitting from the pari passu lien status under the Pari Passu Intercreditor Agreement may not exceed $500 million.

The Pari Passu Intercreditor Agreement also will provide that the Required Senior Creditors (as defined below) shall have the exclusive right, from and after the occurrence of any Event of Default, to direct the Senior Credit Facilities Collateral Agent to commence any judicial or nonjudicial foreclosure proceedings with respect to, seek to have a Trustee, receiver, liquidator or similar official appointed for or over, attempt any action to take possession of, exercise any right, remedy or power with respect to, or otherwise take any action to enforce its security interest in or realize upon, or take any other action available to it in respect of, any Shared Collateral, whether under any Secured Credit Document, applicable law or otherwise (any of such actions being referred to herein as an "*Exercise of Secured Creditor Remedies*"); *provided* that only the Senior Credit Facilities Collateral Agent (or a person authorized by it), acting in accordance with the Credit Agreement Collateral Documents and the Pari Passu Intercreditor Agreement, will be entitled to take any such actions or exercise any such remedies with respect to Shared Collateral at any time until such time as the occurrence of a Notes Enforcement Date (as defined below) or EIB Enforcement Date (as defined below) or any enforcement date related to Other Pari Passu Obligations. Following the Notes Enforcement Date, the Notes Collateral Agent (acting on the written instructions of holders of a majority of the aggregate outstanding principal amount of the notes) shall act as if it were the Senior Credit Facilities Collateral Agent under the Pari Passu Intercreditor Agreement, with all of the rights of the Senior Credit Facilities Collateral Agent vested in, and the provisions therein relating to the Senior Credit Facilities Collateral Agent applying to, the Notes Collateral Agent, *mutatis mutandis*. Following the EIB

Enforcement Date, EIB shall act as if it were the Senior Credit Facilities Collateral Agent under the Pari Passu Intercreditor Agreement, with all of the rights of the Senior Credit Facilities Collateral Agent vested in, and the provisions therein relating to the Senior Credit Facilities Collateral Agent applying to, EIB, *mutatis mutandis.*

Notwithstanding the equal priority of the Liens securing each Series of Lien Obligations with respect to any Shared Collateral, the Senior Credit Facilities Collateral Agent (acting on the instructions of the Required Senior Creditors) may deal with such Shared Collateral as if the Senior Credit Facilities Collateral Agent had a senior Lien on such Collateral. None of any EIB Secured Party or Notes Secured Party shall be permitted to contest, protest or object to any foreclosure proceeding or action brought by the Senior Credit Facilities Collateral Agent or, in respect of any Ancillary Facility by any Credit Agreement Secured Party or any other exercise by the Senior Credit Facilities Collateral Agent or, in respect of any Ancillary Facility by any Credit Agreement Secured Party of any rights and remedies relating to such Shared Collateral taken in accordance with the Pari Passu Intercreditor Agreement.

"*Notes Enforcement Date*" means the date that is 180 consecutive days after the occurrence of all of the following: (i) an Event of Default (under and as defined in the Indenture) shall have occurred and be continuing and (ii) the Senior Credit Facilities Collateral Agent's and EIB's receipt of written notice from the Notes Collateral Agent (in accordance with written direction from the required holders) stating that (x) an Event of Default (under and as defined in the Indenture) has occurred and is continuing and (y) the Obligations in respect of the notes are currently due and payable in full (whether as a result of acceleration thereof or otherwise) in accordance with the terms of the Indenture; *provided* that the Notes Enforcement Date shall be stayed and shall not occur and shall be deemed not to have occurred (1) at any time the Senior Credit Facilities Collateral Agent has commenced and is diligently pursuing any Exercise of Secured Creditor Remedies with respect to any Shared Collateral or (2) with respect to any Shared Collateral, at any time the grantor that has granted a security interest in any Shared Collateral is then a debtor under or with respect to (or otherwise subject to) any Insolvency or Liquidation Proceeding. If the Notes Collateral Agent exercises any rights or remedies with respect to the Shared Collateral in accordance with the immediately preceding sentence of this paragraph and thereafter the Senior Credit Facilities Collateral Agent commences (or attempts to commence) the exercise of any of its rights or remedies with respect to the Shared Collateral (including seeking relief from the automatic stay or any other stay in any Insolvency or Liquidation Proceeding), the Notes Enforcement Date shall be deemed not to have occurred and the Notes Collateral Agent shall stop exercising any such rights or remedies with respect to the Shared Collateral.

"*EIB Enforcement Date*" means the date that is 270 consecutive days after the occurrence of all of the following: (i) an Event of Default (under and as defined in any EIB Agreement) shall have occurred and be continuing and (ii) the Senior Credit Facilities Collateral Agent's and the Notes Collateral Agent's receipt of written notice from the EIB Secured Parties certifying that (x) an Event of Default (under and as defined in any EIB Agreement) has occurred and is continuing and (y) the EIB Obligations are currently due and payable in full (whether as a result of acceleration thereof or otherwise) in accordance with the terms of the applicable EIB Document; *provided* that the EIB Enforcement Date shall be stayed and shall not occur and shall be deemed not to have occurred (1) at any time the Senior Credit Facilities Collateral Agent or the Notes Collateral Agent, as applicable, has commenced and is diligently pursuing any Exercise of Secured Creditor Remedies with respect to any Shared Collateral or (2) with respect to any Shared Collateral, at any time the Grantor which has granted a security interest in any Shared Collateral is then a debtor under or with respect to (or otherwise subject to) any Insolvency or Liquidation Proceeding. If EIB exercises any rights or remedies with respect to the Shared Collateral in accordance with the immediately preceding sentence of this paragraph and thereafter the Senior Credit Facilities Collateral Agent or Notes Collateral Agent, as applicable, commences (or attempts to commence) the exercise of any of its rights or remedies with respect to the Shared Collateral (including seeking relief from the automatic stay or any other stay in any Insolvency or Liquidation Proceeding), the EIB Enforcement Date shall be deemed not to have occurred and EIB shall stop exercising any such rights or remedies with respect to the Shared Collateral.

"*Combined Exposure*" means, as of any date of determination, the aggregate outstanding principal amount of the Loans (as defined in the Credit Agreement and the EIB Agreements) under the Credit Agreement and EIB Agreements and the Obligations under the notes.

"*Required Senior Creditors*" means, at any time, Senior Creditors holding Obligations representing more than 50.0% of the Combined Exposure; provided that so long as an EIB Enforcement Date has occurred and is continuing, Required Senior Creditors shall mean EIB.

The Pari Passu Intercreditor Agreement will provide that (subject to, with respect to the enforcement of any Shared Collateral in the context of an International Process or the application of any International Recoveries in the context of an International Process, the International Provisions thereto ("*International Provisions*")), if an Event of Default has occurred and is continuing, and the Senior Credit Facilities Collateral Agent is taking action to enforce rights in respect of any Shared Collateral, or any distribution is made in respect of any Shared Collateral in any insolvency or liquidation proceeding of the Company or any other grantor or any Intercreditor Secured Party receives any payment pursuant to any other intercreditor agreement with respect to any Shared Collateral, the proceeds of any sale, collection or other liquidation of any such Shared Collateral by the Senior Credit Facilities Collateral Agent or received by the Senior Credit Facilities Collateral Agent or any Intercreditor Secured Party pursuant to any other intercreditor agreement with respect to such Shared Collateral and proceeds of any such distribution (subject, in the case of any such distribution, to the immediately following sentence) to which the Obligations are entitled under any intercreditor agreement (other than the Pari Passu Intercreditor Agreement) (all proceeds of any sale, collection or other liquidation of any Shared Collateral and any payment or distribution made in respect of Shared Collateral pursuant to any intercreditor agreement or in an Insolvency or Liquidation Proceeding being collectively referred to as "*Proceeds*"), shall be applied (i) FIRST, to the payment of all amounts owing to Senior Credit Facilities Collateral Agent (in its capacity as such) pursuant to the terms of any Secured Credit Document and, in the event the Notes Collateral Agent acts in the place of the Senior Credit Facilities Collateral Agent after any Notes Enforcement Date in accordance with the terms thereof, to the payment of all amounts owing to the Notes Collateral Agent in connection therewith, and, in the event EIB acts in the place of the Senior Credit Facilities Collateral Agent after any EIB Enforcement Date in accordance with the terms thereof, to the payment of all amounts owing to EIB in connection therewith, in each case including all court costs and the fees and expenses of agents and legal counsel, (ii) SECOND, in the event that the Notes Collateral Agent takes any Exercise of Secured Creditor Remedies with respect to the Shared Collateral at the direction of the Senior Credit Facilities Collateral Agent pursuant to, and in accordance with the Pari Passu Intercreditor Agreement, to the payment of all costs and expenses incurred by the Notes Collateral Agent in the taking of such Exercise of Secured Creditor Remedies, including all court costs and the fees and expenses of agents and legal counsel, (iii) THIRD, in the event that EIB takes any Exercise of Secured Creditor Remedies with respect to the Shared Collateral at the direction of the Senior Credit Facilities Collateral Agent (or the Notes Collateral Agent after the occurrence of a Notes Enforcement Date) pursuant to, and in accordance with the Pari Passu Intercreditor Agreement, to the payment of all costs and expenses incurred by EIB in the taking of such Exercise of Secured Creditor Remedies, including all court costs and the fees and expenses of agents and legal counsel, (iv) FOURTH, to the payment in full of the Obligations of each Series on a ratable basis, with such Proceeds to be applied to the Obligations of a given Series in accordance with the terms of the applicable Secured Credit Documents and (v) FIFTH, after payment of all Obligations, to the Company and the other Grantors or their successors or assigns, as their interests may appear, or to whomsoever may be lawfully entitled to receive the same, or as a court of competent jurisdiction may direct. If, despite the provisions of the Pari Passu Intercreditor Agreement, any Intercreditor Secured Party shall receive any payment or other recovery in excess of its portion of payments on account of the Shared Collateral to which it is then entitled in accordance with the provisions of the Pari Passu Intercreditor Agreement, such Intercreditor Secured Party shall hold such payment or recovery in trust for the benefit of all Intercreditor Secured Parties for distribution in accordance with the provisions of the Pari Passu Intercreditor Agreement.

None of the holders of Indebtedness having Pari Passu Lien Priority may institute any suit or assert in any suit or other proceeding any claim against the Notes Collateral Agent, any other collateral agent with respect to Indebtedness having Pari Passu Lien Priority or any other holder of Other Pari Passu Lien Obligations seeking damages from or other relief by way of specific performance, instructions or otherwise with respect to any Collateral. In addition, none of the holders of Indebtedness having Pari Passu Lien Priority may seek to have any Collateral or any part thereof marshaled upon any foreclosure or other disposition of such Collateral.

Release of Collateral

The Company and the Guarantors will be entitled to the releases of property and other assets included in the Collateral from the Liens securing the notes under various circumstances.

The Pari Passu Intercreditor Agreement will provide that if, at any time the Senior Credit Facilities Collateral Agent forecloses upon or otherwise exercises remedies against any Shared Collateral resulting in a sale or disposition thereof, then (whether or not any insolvency or liquidation proceeding is pending at

the time) the Liens in favor of the Notes Secured Parties upon such Shared Collateral will automatically be released and discharged as and when, but only to the extent, such Liens of the Senior Credit Facilities Collateral Agent on such Shared Collateral are released and discharged; *provided* that any Proceeds of any Shared Collateral realized therefrom shall be allocated and applied pursuant to the provisions of the Pari Passu Intercreditor Agreement. The Notes Collateral Agent will agree to execute and deliver (at the sole cost and expense of the Grantors) all such authorizations and other instruments as shall reasonably be requested by the Senior Credit Facilities Collateral Agent to evidence and confirm any release of Shared Collateral provided for in this paragraph.

A Guarantor will automatically be released from its obligations under the Notes Documents, and all security interests created by the Collateral Documents in Collateral owned by such Guarantor shall be automatically released if all of the Equity Interests of any Guarantor or any of its successors in interest under the Indenture shall be sold or otherwise disposed of (including by merger or consolidation) in accordance with the terms of the Indenture or such Guarantor ceases to be a Restricted Subsidiary upon consummation of any transaction or designation permitted by the Indenture.

Without further written consent or authorization from any Secured Party, the Notes Collateral Agent may execute any documents or instruments necessary in connection with a sale or disposition of assets permitted by the Indenture, to release any Lien encumbering any item of Collateral that is the subject of such sale or other disposition of assets or to which such percentage of Holders of the notes as may be required to give such consent under the Indenture have consented.

In connection with executing any such release, authorization or other instrument relating to the release of collateral, the Notes Collateral Agent shall receive and be entitled to rely on an opinion of counsel and officer's certificate that such release complies with the Indenture and Collateral Documents and all conditions precedent to such release have been satisfied.

Upon (i) payment in full of the principal of, together with accrued and unpaid interest on, the notes and all other obligations (other than contingent indemnity obligations for which no demand has been made) under the Indenture, the Guarantees under the Indenture and the Collateral Documents that are due and payable at or prior to the time such principal, together with accrued and unpaid interest, is paid, or (ii) a legal defeasance or covenant defeasance under the Indenture as described below under "—Legal Defeasance and Covenant Defeasance" or a discharge of the Indenture as described under "—Satisfaction and Discharge," all obligations under the Notes Documents and all security interests created by the Collateral Documents shall be automatically released.

Guarantees

The notes will be initially guaranteed (each a "Guarantee") by each of the Company's Restricted Subsidiaries that guarantee the obligations under the Credit Agreement (other than any Immaterial Subsidiary). These Guarantees will be joint and several obligations of the Guarantors. The obligations of each Guarantor under its Guarantee will be limited to reflect limitations under applicable law with respect to maintenance of share capital, corporate benefit, fraudulent conveyance and other legal restrictions applicable to the Guarantors and their respective shareholders, directors and general partners. If a Guarantee were to be rendered voidable, it could be subordinated by a court to all other debt, including Guarantees and contingent liabilities, of the applicable Guarantor and, depending on the amount of such debt, a Guarantor's liability in respect of its Guarantee could be reduced to zero. See "Risk Factors—The Guarantees of the Notes, along with any future guarantees of the Notes, will be subject to certain limitations on enforcement and may be limited by applicable law or subject to certain defenses that may limit their validity and enforceability".

A Guarantor may not sell or otherwise dispose of all or substantially all of its assets to, or consolidate with or merge with or into (whether or not such Guarantor is the surviving Person), another Person, other than us or another Guarantor, unless:

(1) immediately after giving effect to that transaction, no Default or Event of Default exists; and

(2) either:

(a) the Person acquiring the property in any such sale or disposition or the Person formed by or surviving any such consolidation or merger (if other than a Guarantor) assumes all the obligations of that Guarantor under the Indenture and its Guarantee pursuant to a supplemental Indenture and other documents reasonably satisfactory to the Trustee; or

(b) the Net Proceeds of such sale or other disposition are applied in accordance with the provisions of the Indenture relating to Asset Sales.

The Guarantee of a Guarantor will be released:

(1) in connection with (a) any sale or other disposition of all of the assets of that Guarantor (including by way of merger or consolidation) to a Person that is not (either before or after giving effect to such transaction) a Restricted Subsidiary of the Company, if the sale or other disposition complies with the provisions of the Indenture relating to Asset Sales or (b) any sale of all of the Capital Stock of a Guarantor to a Person that is not (either before or after giving effect to such transaction) a Restricted Subsidiary of the Company, if the sale complies with the provisions of the Indenture relating to Asset Sales, in each case as provided below under the caption "Repurchase at the Option of Holders—Asset Sales";

(2) if the Company designates any Restricted Subsidiary that is a Guarantor as an Unrestricted Subsidiary in accordance with the applicable provisions of the Indenture;

(3) upon Legal Defeasance or Covenant Defeasance as provided below under the heading "Legal Defeasance and Covenant Defeasance" and upon a discharge of the Indenture as provided under the heading "Satisfaction and Discharge";

(4) if such Guarantor is released (or is being simultaneously released) from its obligation as borrower of or to Guarantee any Indebtedness under any Credit Facility (other than if such Guarantor no longer Guarantees any such Indebtedness as a result of payment, under any Guarantee or otherwise of any such Indebtedness by any Guarantor) *provided* that a Guarantor shall not be permitted to be released from its Guarantee pursuant to this clause (4) if it is an obligor with respect to Indebtedness that would not, under "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock," be permitted to be incurred by a Restricted Subsidiary that is not a Guarantor (unless it is also designated as an Unrestricted Subsidiary), or such Guarantor becomes an Immaterial Subsidiary; or

(5) pursuant to the provisions of the Pari Passu Intercreditor Agreement.

Optional Redemption

2025 Notes

Except as set forth below, the 2025 notes will not be redeemable at the Company's option prior to February 15, 2022.

On or prior to February 15, 2022, the Company may on one or more occasions redeem up to 40% of the aggregate principal amount of 2025 notes issued (including 2025 additional notes) under the Indenture at a redemption price of 101.625% of the principal amount thereof, plus accrued and unpaid interest, if any, to the redemption date, with the net cash proceeds of any Qualified Equity Offering; *provided* that:

(1) at least 50% of the aggregate principal amount of 2025 notes (including 2025 additional notes) under the Indenture remains outstanding immediately after the occurrence of such redemption (excluding notes held by the Company and its Subsidiaries); and

(2) the redemption occurs within 90 days of the date of the closing of such Qualified Equity Offering.

On or prior to February 15, 2022, the Company may redeem all or a part of the 2025 notes, upon not less than 15 nor more than 60 days' prior notice sent to the registered address of each Holder of 2025 notes or otherwise in accordance with the procedures of Euroclear and Clearstream, at a redemption price equal to 100% of the principal amount of the 2025 notes redeemed plus the 2025 Notes Applicable Premium as of, and accrued and unpaid interest, if any, to the redemption date, subject to the rights of Holders of 2025 notes on the relevant record date to receive interest due on the relevant interest payment date.

Except pursuant to the prior paragraphs, the 2025 notes will not be redeemable at the Company's option prior to February 15, 2022. The Company is not prohibited by the terms of the Indenture, however, from acquiring the 2025 notes by means other than a redemption, whether pursuant to a tender offer, open market purchases, negotiated transactions or otherwise, assuming such acquisition does not otherwise violate the terms of the Indenture.

On or after February 15, 2022, the Company may redeem all or a part of the notes, upon not less than 15 nor more than 60 days' notice, at the redemption prices (expressed as percentages of principal amount) set

forth below plus accrued and unpaid interest, if any, on the notes redeemed, to the applicable redemption date, if redeemed during the twelve-month period beginning on February 15 of the years indicated below:

Fiscal Year	Percentage
2022	100.8125%
2023	100.40625%
2024 and thereafter	100.000%

Unless the Company defaults in the payment of the redemption price, interest will cease to accrue on the called for redemption on the applicable redemption date.

2027 Notes

Except as set forth below, the 2027 notes will not be redeemable at the Company's option prior to November 15, 2022.

On or prior to November 15, 2022, the Company may on one or more occasions redeem up to 40% of the aggregate principal amount of 2027 notes issued (including 2027 additional notes) under the Indenture at a redemption price of 102.250% of the principal amount thereof, plus accrued and unpaid interest, if any, to the redemption date, with the net cash proceeds of any Qualified Equity Offering; *provided* that:

(1) at least 50% of the aggregate principal amount of 2027 notes (including 2027 additional notes) under the Indenture remains outstanding immediately after the occurrence of such redemption (excluding notes held by the Company and its Subsidiaries); and

(2) the redemption occurs within 90 days of the date of the closing of such Qualified Equity Offering.

On or prior to November 15, 2022, the Company may redeem all or a part of the 2027 notes, upon not less than 15 nor more than 60 days' prior notice sent to the registered address of each Holder of 2027 notes or otherwise in accordance with the procedures of Euroclear and Clearstream, at a redemption price equal to 100% of the principal amount of the 2027 notes redeemed plus the 2027 Notes Applicable Premium as of, and accrued and unpaid interest, if any, to the redemption date, subject to the rights of Holders of 2027 notes on the relevant record date to receive interest due on the relevant interest payment date.

Except pursuant to the prior paragraphs, the 2027 notes will not be redeemable at the Company's option prior to November 15, 2022. The Company is not prohibited by the terms of the Indenture, however, from acquiring the 2027 notes by means other than a redemption, whether pursuant to a tender offer, open market purchases, negotiated transactions or otherwise, assuming such acquisition does not otherwise violate the terms of the Indenture.

On or after November 15, 2022, the Company may redeem all or a part of the 2027 notes, upon not less than 15 nor more than 60 days' notice, at the redemption prices (expressed as percentages of principal amount) set forth below plus accrued and unpaid interest, if any, on the notes redeemed, to the applicable redemption date, if redeemed during the twelve-month period beginning on of the years indicated below:

Fiscal Year	Percentage
2022	101.125%
2023	100.5625%
2024 and thereafter	100.000%

Unless the Company defaults in the payment of the redemption price, interest will cease to accrue on the notes or portions thereof called for redemption on the applicable redemption date.

Redemption for Taxation Reasons

The notes of either series may be redeemed, at the option of the Company, as a whole but not in part, upon giving not less than 15 days' nor more than 60 days' notice to Holders (which notice will be irrevocable), at a redemption price equal to 100% of the principal amount thereof, together with accrued

and unpaid interest (including any Additional Amounts), if any, to the date fixed by the Company for redemption if, as a result of:

(1) any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of a Taxing Jurisdiction affecting taxation; or

(2) any change in, or amendment to, an official position regarding the application or interpretation of such laws, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction), which change or amendment becomes effective on or after the date on which such jurisdiction becomes a Taxing Jurisdiction, and the Company or any Guarantor, as the case may be, is, or on the next interest payment date would be, required to pay Additional Amounts, and such requirement cannot be avoided by the Company or any Guarantor, as the case may be, taking reasonable measures available to it; *provided* that for the avoidance of doubt, changing the jurisdiction of the Company or any Guarantor is not a reasonable measure for the purposes of this section; *provided*, *further*, that no such notice of redemption will be given earlier than 90 days prior to the earliest date on which the Company or any Guarantor, as the case may be, would be obligated to pay such Additional Amounts if a payment in respect of the notes of a series were then due.

Prior to the transmission of any notice of redemption of a series of notes pursuant to the foregoing, the Company will deliver to the Trustee (1) an officer's certificate stating that such change or amendment referred to in the prior paragraph has occurred, and describing the facts related thereto and stating that such requirement cannot be avoided by the Company or Guarantor, as the case may be, taking reasonable measures available to it; and (2) an opinion of counsel of recognized international standing stating that the requirement to pay such Additional Amounts results from such change or amendment referred to in the prior paragraph.

The Trustee will accept such certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent described above, in which event it will be conclusive and binding on the Holders. Any notes that are redeemed will be cancelled.

Mandatory Redemption

The Company is not required to make sinking fund payments with respect to the notes. However, under certain circumstances, the Company may be required to offer to purchase the notes as described under the caption "—Repurchase at the Option of Holders."

Offers to Purchase; Open Market Purchases

The Company and its Subsidiaries may acquire notes by means other than a redemption or required repurchase, whether by tender offer, open market purchases, negotiated transactions or otherwise, in accordance with applicable securities laws, so long as such acquisition does not otherwise violate the terms of the Indenture. However, other existing or future agreements of the Company or its Subsidiaries may limit the ability of the Company or its Subsidiaries to purchase notes prior to maturity.

Additional Amounts

All payments made by the Company or any Guarantor that is not formed or incorporated under the laws of the United States or any State of the United States or the District of Columbia (each such Guarantor, a "*non-U.S. Guarantor*") under or with respect to the notes or such non-U.S. Guarantor's Guarantee will be made free and clear of and without withholding or deduction for or on account of any present or future Taxes imposed or levied by or on behalf of any Taxing Authority of or within Spain, Ireland or any other jurisdiction in which the Company or such non-U.S. Guarantor is organized, resident or doing business for tax purposes or within or through which payment is made or any political subdivision or Taxing Authority or agency thereof or therein (any of the aforementioned being a "*Taxing Jurisdiction*"), unless the Company or such non-U.S. Guarantor is required to withhold or deduct Taxes by law or by the interpretation or administration thereof. If the Company or any non-U.S. Guarantor is required to withhold or deduct any amount for or on account of Taxes imposed by a Taxing Authority within Spain, Ireland, or any other Taxing Jurisdiction, from any payment made under or with respect to the notes or the Guarantee of such non-U.S. Guarantor, the Company or such non-U.S. Guarantor will pay such additional amounts ("*Additional Amounts*") as may be necessary so that the net amount received by each Holder of notes after such withholding or deduction (including any withholding or deduction in respect of the payment of Additional Amounts) will equal the amount the Holder would have received if such Taxes had

not been withheld or deducted; *provided*, *however*, that no Additional Amounts will be payable with respect to:

(1) any Tax imposed by the United States or by any political subdivision or Taxing Authority thereof or therein;

(2) any Taxes that would not have been so imposed, deducted or withheld but for the existence of any connection between the Holder or beneficial owner of a note (or between a fiduciary, settlor, beneficiary, member or shareholder of, or possessor of power over, the Holder or beneficial owner of such note, if the Holder or beneficial owner is an estate, nominee, trust, partnership or corporation) and the relevant Taxing Jurisdiction (other than the mere receipt of such payment or the ownership or holding of the execution, delivery, registration or enforcement of such note);

(3) any estate, inheritance, gift, sales, excise, transfer or personal property Tax or similar Tax, assessment or governmental charge, subject to the second to last paragraph of this covenant;

(4) any Taxes payable other than by deduction or withholding from payments under or with respect to the notes by the Company or under or with respect to the Guarantee by any non-U.S. Guarantor of such note;

(5) any Taxes that would not have been so imposed, deducted or withheld if the Holder or beneficial owner of a note or beneficial owner of any payment on the note or the Guarantee of such note had (i) made a declaration of non-residence, or any other claim or filing for exemption, to which it is entitled or (ii) complied with any certification, identification, information, documentation or other reporting requirement with which it is entitled to comply concerning the nationality, residence, identity or connection with the relevant Taxing Jurisdiction of such Holder or beneficial owner of such note or any payment on such note (provided that (x) such declaration of non-residence or other claim or filing for exemption or such compliance is required by the applicable law of the Taxing Jurisdiction as a precondition to exemption from, or reduction in the rate of the imposition, deduction or withholding of, such Taxes and (y) at least 30 days prior to the first payment date with respect to which such declaration of non-residence or other claim or filing for exemption or such compliance is required under the applicable law of the Taxing Jurisdiction, Holders at that time have been notified by the Company or such Guarantor or any other Person through whom payment may be made that a declaration of non-residence or other claim or filing for exemption or such compliance is required to be made);

(6) any Taxes imposed, deducted or withheld due to the Company or the non-US Guarantors not receiving in a timely manner and in the legally prescribed form the information required under Section 44 of Royal Decree 1065/2007, of July 27 and any implementing legislation or regulation;

(7) any Taxes that would not have been so imposed, deducted or withheld if the beneficiary of the payment had presented the note for payment within 30 days after the date on which such payment or such note became due and payable or the date on which payment thereof is duly provided for, whichever is later (except to the extent that the Holder would have been entitled to Additional Amounts had the note been presented on the last day of such 30 day period);

(8) any payment under or with respect to a note to any Holder that is a fiduciary or partnership or any Person other than the sole beneficial owner of such payment or note, to the extent that a beneficiary or settlor with respect to such fiduciary, a member of such partnership or the beneficial owner of such payment or note would not have been entitled to the Additional Amounts, or to a reduced amount of Additional Amounts, had such beneficiary, settlor, member or beneficial owner been the actual Holder of such note;

(9) any withholding or deduction in respect of any Tax, duty, assessment or other governmental charge where such withholding or deduction is imposed or levied on a payment to an individual and is required to be made pursuant to European Council Directive 2003/48/EC or any other Directive implementing the conclusions of the ECOFIN Council meeting of November 26-27, 2000 on the taxation of savings income or any law implementing or complying with, or introduced in order to conform to, such Directives; or

(10) any combination of items (1) through (9) above.

The foregoing provisions shall survive any termination or discharge of the Indenture and payment of the notes and shall apply *mutatis mutandis* to any Taxing Jurisdiction with respect to any successor Person to the Company or a non-U.S. Guarantor.

The Company and each applicable non-U.S. Guarantor will also make any applicable withholding or deduction and remit the full amount deducted or withheld to the relevant authority in accordance with

applicable law. The Company and each applicable non-U.S. Guarantor will furnish to the Trustee, within 60 days after the date the payment of any Taxes deducted or withheld is due pursuant to applicable law, certified copies of tax receipts or, if such tax receipts are not reasonably available to the Company and such non-U.S. Guarantor, such other documentation that provides reasonable evidence of such payment by the Company or such non-U.S. Guarantor. Copies of such tax receipts or, if such tax receipts are not reasonably available, such other documentation will be made available to the Holders or the paying agent, as applicable, upon request.

At least 30 days prior to each date on which any payment under or with respect to the notes or any Guarantee is due and payable, if the Company or any non-U.S. Guarantor will be obligated to pay Additional Amounts with respect to such payment, the Company or such non-U.S. Guarantor will deliver to the Trustee and the paying agent an officer's certificate stating the fact that such Additional Amounts will be payable and the amounts so payable and will set forth such other information necessary to enable such Trustee and paying agent to pay such Additional Amounts to Holders of such notes on the payment date, unless such obligation to pay Additional Amounts arises after the 30th day prior to such date, in which case it shall be promptly paid thereafter.

Whenever in the Indenture or in this "Description of Notes" there is mentioned, in any context, the payment of principal, premium, if any, interest or of any other amount payable under or with respect to any note, such mention shall be deemed to include mention of the payment of Additional Amounts to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof.

The Company and each non-U.S. Guarantor will pay any present or future stamp, court or documentary taxes or any other excise or property Taxes, charges or similar levies that arise in any jurisdiction from the execution, delivery, enforcement or registration of their respective Obligations and Guarantees of the notes, the Indenture or any other document or instrument in relation thereto, excluding all such Taxes, charges or similar levies imposed by any jurisdiction outside the United States in which the Company or any non-U.S. Guarantor or any successor Person is organized or resident for tax purposes or any jurisdiction in which a paying agent is located, and the Company and each non-U.S. Guarantor will agree to indemnify the Holders of the notes for any such non-excluded taxes paid by such Holders.

The foregoing provisions of this section shall survive any termination or discharge of the Indenture and payment of the notes and shall apply *mutatis mutandis* to any Taxing Jurisdiction with respect to any successor Person to the Company or a non-U.S. Guarantor.

Repurchase at the Option of Holders

Change of Control

Upon the occurrence of a Change of Control, the Company shall be obligated to make an offer to purchase (a "*Change of Control Offer*") and each Holder of notes will have the right to require the Company to repurchase all or any part (equal to €100,000 or an integral multiple of €1,000) of that Holder's notes pursuant to a Change of Control Offer on the terms set forth in the Indenture. In the Change of Control Offer, the Company will offer a Change of Control payment in cash equal to 101% of the aggregate principal amount of notes repurchased plus accrued and unpaid interest, if any, on the notes repurchased, to (but not including) the date of purchase. The Company shall be required to purchase all notes tendered pursuant to the Change of Control Offer and not withdrawn. Subject to compliance with the provisions of the third succeeding paragraph, within 30 days following any Change of Control or, at the Company's option, prior to any Change of Control, but after public announcement of the transaction that constitutes or may constitute the Change of Control, the Company will send a notice to the Trustee and each Holder describing the transaction or transactions that constitute or may constitute the Change of Control and offering to repurchase notes on the Change of Control payment date specified in the notice, which date will be no earlier than 15 days and no later than 60 days from the date such notice is sent, pursuant to the procedures required by the Indenture and described in such notice. The notice will, if sent prior to the date of consummation of the Change of Control, state that the Change of Control Offer is conditioned on the Change of Control occurring on or prior to the applicable Change of Control payment date specified in the notice. The Company will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the Indenture, the Company will comply with the applicable securities laws and regulations and will not be

deemed to have breached its obligations under the Change of Control provisions of the Indenture by virtue of such conflict.

On the Change of Control payment date, the Company will, to the extent lawful:

(1) accept for payment all notes or portions of notes validly and properly tendered and not withdrawn pursuant to the Change of Control Offer;

(2) deposit with the paying agent an amount equal to the Change of Control payment in respect of all notes or portions of notes validly and properly tendered and not withdrawn; and

(3) deliver or cause to be delivered to the Trustee the notes properly accepted together with an officer's certificate stating the aggregate principal amount of notes or portions of notes being purchased by the Company.

The paying agent will promptly mail (or wire) to each Holder of notes validly and properly tendered and not withdrawn the Change of Control payment for such notes, and the Trustee will promptly authenticate and mail (or cause to be transferred by book entry) to each Holder a new note equal in principal amount to any unpurchased portion of the notes surrendered, if any; *provided* that each new note will be in a principal amount of €100,000 or an integral multiple of €1,000 in excess thereof. The Company will publicly announce the results of a Change of Control Offer on or as soon as practicable after the Change of Control payment date.

The provisions described above that require the Company to make a Change of Control Offer following a Change of Control will be applicable whether or not any other provisions of the Indenture are applicable, except as described below under "Legal Defeasance and Covenant Defeasance." Except as described above with respect to a Change of Control, the Indenture does not contain provisions that permit the Holders of the notes to require that the Company repurchase or redeem the notes in the event of a takeover, recapitalization, spin-off or similar transaction.

The Company will not be required to make a Change of Control Offer upon a Change of Control if (i) a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the Indenture applicable to a Change of Control Offer made by the Company and purchases all notes validly and properly tendered and not withdrawn under the Change of Control Offer, (ii) notice of redemption of all of the notes has been given pursuant to the Indenture as described above under the caption "Optional Redemption," unless and until there is a default in payment of the applicable redemption price, or (iii) in connection with or in contemplation of any Change of Control for which a definitive agreement is in place the Company or a third party has made an offer to purchase (an "*Alternate Offer*") any and all notes validly and properly tendered at a cash price equal to or higher than the Change of Control payment and has purchased all notes validly and properly tendered and not withdrawn in accordance with the terms of such Alternate Offer; *provided* that the terms of such Alternate Offer shall not require Holders to irrevocably tender notes and such Alternate Offer shall not close unless and until the Change of Control is actually consummated.

The provisions under the Indenture relative to the Company's obligation to make a Change of Control Offer may, prior to the occurrence of a Change of Control, be waived or modified with the consent of the Holders of at least a majority in principal amount of the then outstanding notes issued under the Indenture. Following the occurrence of a Change of Control, any change, amendment or modification in any material respect of the obligation of the Company to make and consummate a Change of Control Offer may only be effected with the consent of each Holder affected thereby.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of "all or substantially all" of the properties or assets of the Company and its Restricted Subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase "substantially all," there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a Holder of notes to require the Company to repurchase its notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of the Company and its Restricted Subsidiaries taken as a whole to another Person or group may be uncertain.

Asset Sales

The Company will not, and will not permit any of the Restricted Subsidiaries to, make any Asset Sale unless:

(1) the Company (or the Restricted Subsidiary, as the case may be) receives consideration at the time of the Asset Sale at least equal to the fair market value of the assets sold, leased, transferred, conveyed or otherwise disposed of; and

(2) at least 75% of the consideration received in the Asset Sale by the Company or such Restricted Subsidiary is in the form of cash, Cash Equivalents or Replacement Assets, or a combination thereof.

For purposes of this provision, each of the following will be deemed to be cash:

(a) any liabilities of the Company or any of the Restricted Subsidiaries, as shown on the Company's or such Restricted Subsidiary's most recent balance sheet (other than contingent liabilities and liabilities that are by their terms subordinated to the notes or any Guarantee), that are assumed by the transferee of any such assets and with respect to which the Company or such Restricted Subsidiary is released from further liability;

(b) any securities, notes or other obligations received by the Company or such Restricted Subsidiary from such transferee that are converted by the Company or such Restricted Subsidiary into cash within 365 days of the consummation of such Asset Sale (subject to ordinary settlement periods), to the extent of the cash received in that conversion;

(c) any Voting Stock or assets referred to in clauses (2) and (3) of the following paragraph; and

(d) any Designated Non-Cash Consideration received by the Company or such Restricted Subsidiary in such Asset Sale having an aggregate fair market value (as determined in good faith by the Company's Board of Directors), taken together with all other Designated Non Cash Consideration received pursuant to this clause (d) that is at such time outstanding, not to exceed an amount equal to $250.0 million at the time of the receipt of such Designated Non-Cash Consideration, with the fair market value of each item of Designated Non-Cash Consideration being measured at the time received and without giving effect to subsequent changes in value.

Within 365 days after the receipt of any Net Proceeds from an Asset Sale, the Company or such Restricted Subsidiary may apply those Net Proceeds at our option:

(1) to (a) prepay, repay or purchase Obligations with Pari Passu Lien Priority (including Indebtedness owed pursuant to the Credit Agreement and EIB Facility, other than Indebtedness owed to the Company or any Restricted Subsidiary), and, in the case of revolving obligations, to correspondingly reduce commitments with respect thereto, provided that, to the extent either Company or any Restricted Subsidiary will so repay any such Indebtedness (other than the notes), the Company will reduce Obligations under the notes on a pro rata basis by, at their option, (i) redeeming notes as provided under the caption "Optional Redemption," (ii) purchasing notes through open-market purchases at a purchase price greater than or equal to 100% of the principal amount thereof or (iii) by making an offer (in accordance with the procedures set forth herein for an Asset Sale Offer) to all Holders to purchase their notes at a purchase price equal to 100% of the principal amount thereof, plus in each case the amount of accrued but unpaid interest, if any, on the principal amount of the notes to be repurchased to the date of repurchase or (b) Indebtedness secured other than by the Collateral (the "debt prepayment provision");

(2) to acquire all or substantially all of the assets of, or a majority of the Voting Stock of, another Permitted Business;

(3) to make any capital expenditures or to acquire other long term assets that are used or useful in a Permitted Business; or

(4) any combination of the foregoing.

In the case of each of clauses (2), (3) and (4) above, the entry into a definitive agreement to acquire such assets within 365 days after the receipt of any Net Proceeds from an Asset Sale shall be treated as a permitted application of the Net Proceeds from the date of such agreement so long as the Company or such Restricted Subsidiary enters into such agreement with the good faith expectation that such Net Proceeds will be applied to satisfy such commitment within 180 days of such agreement and such Net Proceeds are actually so applied within such period. Pending the final application of any Net Proceeds, we

may temporarily reduce revolving credit borrowings under our Credit Agreement or otherwise invest the Net Proceeds in any manner that is not prohibited by the Indenture.

Any Net Proceeds from Asset Sales that are not applied or invested as provided in the second paragraph of this covenant will constitute "*Excess Proceeds.*" When the aggregate amount of Excess Proceeds exceeds $200.0 million, the Company will make an offer (an "*Asset Sale Offer*") to all Holders of notes issued under the Indenture and, to the extent the Company elects, to all holders of other outstanding *Pari Passu* Indebtedness, to repay, prepay or purchase the maximum aggregate principal amount of notes and any such *Pari Passu* Indebtedness to which the Asset Sale Offer applies that may be repaid, prepaid or purchased out of the Excess Proceeds, at an offer price (i) in respect of the notes in an amount equal to at least 100% of the principal amount of the notes and (ii) in the case of any *Pari Passu* Indebtedness, an offer price of no more than 100% of the principal amount of such *Pari Passu* Indebtedness, in each case, plus accrued and unpaid interest, if any, to, but not including, the date of repayment, prepayment or purchase, in accordance with the procedures set forth in the Indenture or the agreements governing the *Pari Passu* Indebtedness, as applicable, and with respect to the notes, subject to the provisions relating to any additional notes that may be issued in the future, in minimum denominations of €100,000 and in integral multiples of €1,000 in excess thereof.

If any Excess Proceeds remain after consummation of an Asset Sale Offer, we may use those for any purpose not otherwise prohibited by the Indenture. If the aggregate principal amount of notes and other Pari Passu Indebtedness validly and properly tendered and not withdrawn into such Asset Sale Offer exceeds the amount of Excess Proceeds, the Trustee (or applicable depositary) will select the notes and the Company or the Trustee, security agent, agent or other similar party with respect to such other *pari passu* Indebtedness will select such Indebtedness to be purchased as described below under "Selection and Notice." Upon completion of each Asset Sale Offer, the amount of Excess Proceeds will be reset at zero.

The Company will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with each repurchase of notes pursuant to an Asset Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the Asset Sale provisions of the Indenture, the Company will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Asset Sale provisions of the Indenture by virtue of such compliance.

The Company's and the Restricted Subsidiaries' existing and future Indebtedness may contain limitations on certain events that would constitute a Change of Control or Asset Sale or require such Indebtedness to be repurchased upon a Change of Control or Asset Sale. Moreover, the exercise by Holders of notes of their right to require the Company to repurchase such notes could cause a default under the Company's and the Restricted Subsidiaries' existing or future Indebtedness, even if the Change of Control or Asset Sale itself does not, due to the financial effect of such purchases on us. In the event that a Change of Control or Asset Sale occurs at a time when the Company is prohibited from purchasing notes, the Company could seek the consent of the applicable lenders to the purchase of notes or could attempt to refinance the borrowings that contain such prohibition. If the Company does not obtain a consent or repay those borrowings, the Company will remain prohibited from purchasing notes. In addition, the Company's ability to pay cash to Holders of notes upon a repurchase may be limited by the Company's then existing financial resources. The Company cannot assure you that sufficient funds will be available when necessary to make any required repurchases. The Company's failure to repurchase notes in connection with a Change of Control or Asset Sale would result in a default under the Indenture. Such a default may, in turn, constitute a default under the Company's other Indebtedness. The Company's obligation to make an offer to repurchase the notes as a result of a Change of Control may be waived or modified at any time prior to the occurrence of such Change of Control with the written consent of the Holders of at least a majority in aggregate principal amount of the notes then outstanding. See "Amendment, Supplement and Waiver".

Selection and Notice

If less than all of the notes of a series are to be redeemed or purchased at any time, the notes of such series shall be selected for redemption or purchase in accordance with the operating procedures of Euroclear and Clearstream.

No notes of any series of €100,000 or less can be redeemed in part. Notices of purchase or redemption will be sent at least 15 but not more than 60 days before the redemption date to each Holder of notes of a series to be redeemed at its registered address, except that redemption notices may be sent more than 60 days prior to a redemption date if the notice is issued in connection with a defeasance of the notes or a satisfaction and discharge of the Indenture. Any inadvertent defect in the notice of redemption, including an inadvertent failure to give notice, to any Holder of a series of notes selected for redemption will not impair or affect the validity of the redemption of any other note of any series redeemed in accordance with the provisions of the Indenture.

If the optional redemption date with respect to any series of notes is on or after a record date and on or before the corresponding interest payment date, the accrued and unpaid interest to, but excluding, the redemption date will be paid on the redemption date to the holder in whose name the Note of such series is registered at the close of business on such record date in accordance with the applicable procedures of the applicable depositary, and no additional interest will be payable to the holders whose notes of such series will be subject to redemption by the Company.

Notice of any redemption of the Notes of any series may, at the Company's discretion, be given prior to the completion of a transaction (including a Qualified Equity Offering, an incurrence of Indebtedness (including Disqualified Stock), a Change of Control or other transaction) and any redemption notice may, at the Company's discretion, be subject to one or more conditions precedent, including, but not limited to, completion of a related transaction. If such redemption or purchase is so subject to satisfaction of one or more conditions precedent, such notice shall describe each such condition, and if applicable, shall state that, in the Company's discretion, the redemption date may be delayed until such time (including more than 60 days after the date the notice of redemption was mailed or delivered, including by electronic transmission) as any or all such conditions shall be satisfied, or such redemption or purchase may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied by the redemption date, or by the payment of the redemption price and performance of the Company's obligations with respect to such redemption may be performed by another person.

In connection with any tender offer for the Notes of any series, including a Change of Control Offer or Asset Sale Offer, if Holders of not less than 90% in aggregate principal amount of the outstanding Notes of such series validly tender and do not withdraw such Notes of such series in such tender offer and the Company, or any third party making such a tender offer in lieu of the Company, purchases all of the Notes of such series validly tendered and not withdrawn by such Holders, the Company or such third party will have the right upon not less than 15 nor more than 60 days' prior notice to redeem all Notes of such series that remain outstanding following such purchase at a redemption price equal to the price offered each other Holder (excluding any early tender or incentive fee) in such tender offer plus, to the extent not included in the tender offer payment, accrued and unpaid interest, if any, thereon, to, but excluding, the date of such redemption.

If any note is to be redeemed in part only, the notice of redemption that relates to that note will state the portion of the principal amount of that note that is to be redeemed. A new note in principal amount equal to the unredeemed portion of the original note may be issued in the name of the Holder of notes upon cancellation of the original note. Notes called for redemption become due on the date fixed for redemption. Notes held in certificated form must be surrendered to the paying agent in order to collect the redemption price. On and after the redemption date, interest ceases to accrue on notes or portions of them called for redemption.

So long as the notes are held by Euroclear or Clearstream, the Trustee shall not be responsible or liable for any actions taken or not taken by Euroclear or Clearstream.

Certain Covenants

Following the first day (a) the notes of a series have achieved Investment Grade Status and (b) no Default or Event of Default has occurred and is continuing, then beginning on that day and continuing at all times thereafter regardless of any subsequent changes in the rating of the notes of such series, the covenants listed under the following captions in this offering memorandum will no longer be applicable to the notes of such series:

(1) "Repurchase at the Option of Holders—Asset Sales";

(2) "—Restricted Payments";

(3) "—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock";

(4) clause (d) of the first paragraph of "—Merger, Consolidation or Sale of Assets";

(5) "—Transactions with Affiliates";

(6) "—Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries"; and

(7) "—Designation of Restricted and Unrestricted Subsidiaries."

There can be no assurance that the notes of any series will ever achieve or maintain an Investment Grade Rating.

Financial Calculations for Limited Condition Acquisitions

When calculating the availability under any basket or ratio under the Indenture, in each case in connection with a Limited Condition Acquisition, the date of determination of such basket or ratio and of any Default or Event of Default shall, at the option of the Company, be the date the definitive agreements for such Limited Condition Acquisition are entered into and such baskets or ratios shall be calculated by the Company giving Pro Forma Effect to such Limited Condition Acquisition and the other transactions to be entered into in connection therewith (including any incurrence of Indebtedness and the use of proceeds thereof) as if they occurred at the beginning of the applicable period for purposes of determining the ability to consummate any such Limited Condition Acquisition (and not for purposes of any subsequent availability of any basket or ratio), and, for the avoidance of doubt, (x) if any of such baskets or ratios are exceeded as a result of fluctuations in such basket or ratio (including due to fluctuations in the Consolidated Cash Flow of the Company or the target company) subsequent to such date of determination and at or prior to the consummation of the relevant Limited Condition Acquisition, such baskets or ratios will not be deemed to have been exceeded as a result of such fluctuations solely for purposes of determining whether the Limited Condition Acquisition is permitted hereunder and (y) such baskets or ratios shall not be tested at the time of consummation of such Limited Condition Acquisition or related transactions; *provided further* that if the Company elects to have such determinations occur at the time of entry into such definitive agreement, any such transactions (including any incurrence of Indebtedness and the use of proceeds therefrom) shall be deemed to have occurred on the date the definitive agreements are entered into and outstanding thereafter for purposes of calculating any baskets or ratios under the Indenture after the date of such agreement and before the consummation of such Limited Condition Acquisition.

Restricted Payments

The Company will not, and will not permit any of the Restricted Subsidiaries to, directly or indirectly:

(1) declare or pay any dividend or make any other payment or distribution on account of the Company's or any Restricted Subsidiaries' Equity Interests (including, without limitation, any payment in connection with any merger or consolidation involving the Company or any Restricted Subsidiary) or to the direct or indirect holders of the Company's or any Restricted Subsidiaries' Equity Interests in their capacity as such (in each case other than dividends or distributions payable in the Company's Equity Interests (other than Disqualified Stock) or to the Company or any Restricted Subsidiary);

(2) purchase, redeem, defease or otherwise acquire or retire for value any of the Company's or the Restricted Subsidiaries' Equity Interests (in each case other than any of the Restricted Subsidiaries' Equity Interests owned by the Company or another Restricted Subsidiary or for consideration consisting solely of the Company's Equity Interests other than Disqualified Stock);

(3) make any payment on or with respect to, or purchase, redeem, repurchase, defease or otherwise acquire or retire for value any of the Company's or the Restricted Subsidiaries' Subordinated Indebtedness (other than Subordinated Indebtedness owed to the Company or any of the Restricted Subsidiaries), except (i) a payment of interest or principal at the Stated Maturity thereof, (ii) the purchase, repurchase or other acquisition of any such Indebtedness in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case, due within one year of the date of such purchase, repurchase or other acquisition, or (iii) for consideration consisting solely of the Company's Equity Interests other than Disqualified Stock; or

(4) make any Restricted Investment

(all such payments and other actions set forth in these clauses (1) through (4) above being collectively referred to as "*Restricted Payments*"), unless, at the time of and after giving effect to such Restricted Payment:

(1) other than in the case of amounts attributable to subclause (B) through (E) of clause (3) below, no Event of Default has occurred and is continuing or would immediately occur as a consequence of such Restricted Payment;

(2) the Company would, at the time of such Restricted Payment and after giving pro forma effect thereto as if such Restricted Payment had been made at the beginning of the applicable four-quarter period, have been permitted to incur at least $1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the first paragraph of "—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock"; and

(3) such Restricted Payment, together with the aggregate amount of all other Restricted Payments made by the Company and the Restricted Subsidiaries after the Issue Date (excluding Restricted Payments made pursuant to the next paragraph other than clauses (1), (7), (8), (12) and (14) of the next paragraph), is less than the sum, without duplication, of:

(A) 50% of the Consolidated Net Income of the Company for the period (taken as one accounting period) from the beginning of the first full fiscal quarter of the Company commencing immediately prior to January 1, 2019 to the end of the Company's most recently ended fiscal quarter for which internal financial statements are available at the time of such Restricted Payment (or, if such Consolidated Net Income for such period is a deficit, less 100% of such deficit), *plus*

(B) 100% of the aggregate net cash proceeds or the fair value of property or assets received by the Company or a Restricted Subsidiary after January 1, 2019 as a contribution to the common equity capital of the Company or from the issue or sale of Equity Interests of the Company (other than Disqualified Stock) or from the issue or sale of convertible or exchangeable Disqualified Stock or convertible or exchangeable debt securities of the Company that have been converted into or exchanged for such Equity Interests (other than Equity Interests or Disqualified Stock or debt securities sold to a Subsidiary of the Company), together with the aggregate net cash and Cash Equivalents received by the Company or any Restricted Subsidiaries at the time of such conversion or exchange; *provided, however,* that this clause shall not include the proceeds from Excluded Contributions, *plus*

(C) to the extent that any Restricted Investment that was made after January 1, 2019 is sold for cash or otherwise liquidated or repaid for cash, the proceeds realized from the sale of such Restricted Investment and proceeds representing the return of the capital with respect to such Restricted Investment, in each case to the Company or any Restricted Subsidiary, less the cost of the disposition of such Restricted Investment, *plus*

(D) to the extent that any Unrestricted Subsidiary is redesignated as a Restricted Subsidiary after January 1, 2019, the portion (proportionate to the Company's interest in such Unrestricted Subsidiary) of the fair market value of the net assets of the Unrestricted Subsidiary at the time such Unrestricted Subsidiary is designated a Restricted Subsidiary; *plus*

(E) 50% of any dividends received by the Company or any Restricted Subsidiary from any Unrestricted Subsidiary after January 1, 2019 to the extent the Company's or such Restricted Subsidiary's Investment in such Unrestricted Subsidiary was a Restricted Investment, and to the extent such dividends were not otherwise included in the Consolidated Net Income of the Company for such period.

The preceding provisions will not prohibit:

(1) the payment of any dividend (or other distribution) or the consummation of any irrevocable redemption within 90 days after the date of declaration of the dividend (or other distribution) or giving of the redemption notice, as the case may be, if at the date of declaration or notice the dividend (or other distribution) payment or redemption would have complied with the provisions of the Indenture;

(2) the making of any Restricted Payment in exchange for, or out of the net cash proceeds of the substantially concurrent sale (other than to any Restricted Subsidiary) of, the Company's Equity Interests (other than Disqualified Stock) or from the substantially concurrent contribution of common equity capital to the Company; *provided* that the amount of any such net cash proceeds that are utilized to make any such

Restricted Payment will be excluded from clause (3)(B) of the preceding paragraph and shall not constitute Excluded Contributions;

(3) the purchase, defeasance, redemption, repurchase or other acquisition or retirement of Subordinated Indebtedness of the Company or any Restricted Subsidiary with (i) the net cash proceeds from an incurrence of Permitted Refinancing Indebtedness or (ii) in exchange for, or out of the proceeds of a substantially concurrent Qualified Equity Offering;

(4) in the case of a Restricted Subsidiary, the payment of dividends (or in the case of any partnership or limited liability company, any similar distribution) to the holders of its Capital Stock on a pro rata basis;

(5) repurchases of Equity Interests deemed to occur upon the exercise of options, warrants, restricted stock units or similar rights if such Equity Interests represents all or a portion of the exercise price thereof or are deemed to occur in connection with the satisfaction of any withholding tax obligation incurred relating to the vesting or exercise of such options, warrants, restricted stock units or similar rights;

(6) cash payments, in lieu of issuance of fractional shares in connection with the exercise of warrants, options or other securities convertible into or exchangeable for Equity Interests of the Company or a Restricted Subsidiary;

(7) the repurchase, redemption or other acquisition or retirement for value of any Subordinated Indebtedness following a Change of Control or Asset Sale, as applicable, after the Company shall have complied with the provisions of the covenants described above under the captions "Repurchase at the Option of Holders—Change of Control" and "Asset Sales," including the payment of the applicable purchase price;

(8) the declaration and payment of regularly scheduled or accrued dividends to holders of any class or series of Disqualified Stock of the Company or any preferred stock of any Restricted Subsidiary of the Company issued on or after the Issue Date in accordance with the Fixed Charge Coverage Ratio test described below under the caption "—Incurrence of Indebtedness and Issuance of Preferred Stock";

(9) payments made as disclosed under "Use of Proceeds,"

(10) the repurchase, redemption or other acquisition of the Equity Interests of the Company or any Restricted Subsidiary from Persons who are, or were formerly, employees, officers and directors of the Company and its Subsidiaries and their Affiliates, heirs and executors; *provided* that the Leverage Ratio would not exceed 3.75:1.00 after giving effect to such purchase;

(11) Restricted Payments that are made with Excluded Contributions;

(12) any Restricted Payments so long as the Leverage Ratio, at the time of each such Restricted Payment, after giving Pro Forma Effect to such Restricted Payment is no greater than 3.75 to 1.00; *provided, however*, that at the time of each such Restricted Payment, no Default shall have occurred and be continuing (or result therefrom);

(13) [reserved];

(14) so long as no Default or Event of Default shall have occurred and be continuing or caused thereby, and the Leverage Ratio after giving Pro Forma Effect to such Restricted Payment is no greater than 7.00 to 1.00, Restricted Payments in an amount not to exceed in respect of any fiscal year, 40% of Consolidated Net Income of the Company for such fiscal year which amounts may be paid in installments, the first, no earlier than December of such fiscal year and the last, no later than the following fiscal year; and

(15) so long as no Default has occurred and is continuing or would be caused thereby, other Restricted Payments in an aggregate amount since the Issue Date not to exceed the greater of (i) $400.0 million and (ii) 2.8% of Total Assets of the Company.

The amount of all Restricted Payments (other than cash) will be the fair market value on the date of the Restricted Payment of the asset(s), property or securities proposed to be transferred or issued by the Company or such Restricted Subsidiary, as the case may be, pursuant to the Restricted Payment. The fair market value of any assets or securities that are required to be valued by this covenant will be determined conclusively by the Company.

For purposes of determining compliance with this covenant, in the event that a proposed Restricted Payment (or a portion thereof) meets the criteria of more than one of the categories of Restricted Payments described in clauses (1) through (15) above, or is entitled to be incurred pursuant to the first

paragraph of this covenant, the Company will be entitled to classify or re classify (based on circumstances existing on the date of such reclassification) such Restricted Payment or a portion thereof in any manner that complies with this covenant and such Restricted Payment will be treated as having been made pursuant to only such clause or clauses or the first paragraph of this covenant.

Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock

The Company will not, and will not permit any of the Restricted Subsidiaries to, directly or indirectly, create, incur, issue, assume, guarantee or otherwise become directly or indirectly liable, contingently or otherwise, with respect to (collectively, "*incur*") any Indebtedness (including Acquired Debt), and the Company will not and will not permit any of the Restricted Subsidiaries to issue any shares of Disqualified Stock; *provided*, *however*, that the Company and any of the Restricted Subsidiaries may incur Indebtedness (including Acquired Debt) or issue Disqualified Stock if the Fixed Charge Coverage Ratio for the Company and the Restricted Subsidiaries on a consolidated basis for the most recently ended four full fiscal quarters for which internal financial statements are available immediately preceding the date on which such additional Indebtedness is incurred or such Disqualified Stock or such preferred stock is issued, as the case may be, would have been at least 2.00 to 1.00, determined on a *pro forma* basis (including a *pro forma* application of the net proceeds therefrom including to refinance other Indebtedness), as if the additional Indebtedness had been incurred or the preferred stock or Disqualified Stock had been issued, as the case may be, at the beginning of such four-quarter period.

The first paragraph of this covenant will not prohibit the incurrence of any of the following items of Indebtedness (collectively, "*Permitted Debt*"):

(1) Indebtedness incurred by the Company and the Restricted Subsidiaries pursuant to Credit Facilities, including the Credit Agreement, in an amount outstanding at any time not to exceed the sum of (x) $4,500.0 million plus (y) $500.0 million;

(2) the incurrence by the Company and the Restricted Subsidiaries of the Existing Indebtedness;

(3) the incurrence by the Company and any Guarantor of Indebtedness represented by the notes to be issued on the Issue Date and the Guarantees thereof;

(4) the incurrence by the Company or any Restricted Subsidiary of Indebtedness represented by Capital Lease Obligations, mortgage financings, purchase money obligations, industrial development or similar bonds, or tax-advantaged governmental or quasi-governmental financing, including without limitation the sale and leaseback arrangements described under clause (5) under the exclusions set forth under the definition of Asset Sale, in each case incurred for the purpose of financing all or any part of the purchase price or cost of design, development, construction, installation or improvement (including at any point subsequent to the purchase) of real or personal property, plant or equipment used in the business of the Company or such Restricted Subsidiary (whether through the direct acquisition or otherwise of such assets or the acquisition of Equity Interests of any Person owning such assets), in an aggregate principal amount, including all Indebtedness incurred to refund, refinance or replace any Indebtedness incurred pursuant to this clause (4), not to exceed $500 million at any time outstanding;

(5) the incurrence by the Company or any Restricted Subsidiary of Permitted Refinancing Indebtedness in exchange for, or the net proceeds of which are used to renew, refund, refinance, replace, defease or discharge Indebtedness (other than intercompany Indebtedness) that was incurred under the first paragraph of this covenant or clauses (2), (3), (5) and (15) of this paragraph;

(6) the incurrence by the Company or any Restricted Subsidiary of intercompany Indebtedness owed to the Company or any Restricted Subsidiary; *provided*, *however*, that to the extent the aggregate amount of Indebtedness incurred in reliance on this clause (6) following the Issue Date exceeds $500 million:

(a) if the Company is the obligor on any such Indebtedness owed to any Restricted Subsidiary that is not a Guarantor, such Indebtedness must be expressly subordinated to the prior payment in full in cash of all Obligations then due with respect to the notes;

(b) if a Guarantor is the obligor on any such Indebtedness owed to any Restricted Subsidiary that is not the Company or a Guarantor, such Indebtedness is expressly subordinated to the prior payment in full in cash of all Obligations then due with respect to such Guarantor's Guarantee; and

(c) (i) any subsequent issuance or transfer of Equity Interests that results in any such Indebtedness being held by a Person other than the Company or a Restricted Subsidiary and (ii) any sale or other

transfer of any such Indebtedness (other than the creation of a Permitted Lien upon such intercompany Indebtedness to a Person that is not either the Company or a Restricted Subsidiary shall be deemed, in each case, to constitute an incurrence of such Indebtedness) by the Company or such Restricted Subsidiary, as the case may be, that was not permitted by this clause;

(7) the incurrence by the Company or any Restricted Subsidiary of Hedging Obligations or entry into derivative transactions, in each case, so long as such obligations and transactions are not entered into for speculative purposes;

(8) the incurrence of Guarantees by the Company or any Guarantors of Indebtedness of the Company or any Restricted Subsidiary that was permitted to be incurred by another provision of this covenant provided that if the Indebtedness that is being guaranteed is unsecured or subordinated to the notes, the guaranty shall also be unsecured and/or subordinated to the notes;

(9) the incurrence of Guarantees by any Restricted Subsidiary that is not a Guarantor of Indebtedness of a Restricted Subsidiary that is not a Guarantor that was permitted to be incurred by another provision of this covenant;

(10) the incurrence by the Company and the Restricted Subsidiaries of Indebtedness in respect of workers' compensation claims, self-retention or self-insurance obligations, unemployment insurance, performance, bid, release, appeal, surety and similar bonds and related reimbursement obligations and completion guarantees and letters of credit supporting the foregoing, in each case, provided or incurred by the Company and the Restricted Subsidiaries in the ordinary course of business, guarantees and letters of credit supporting the foregoing, in each case, for the account of suppliers in the ordinary course of business, and obligations in connection with participation in government reimbursement or other programs or other similar requirements;

(11) the incurrence by the Company and the Restricted Subsidiaries of Indebtedness arising from the Company's and the Restricted Subsidiaries' agreements providing for indemnification, contribution, earnout, adjustment of purchase price or similar obligations, in each case, incurred or assumed in connection with the sale of goods or acquisition or disposition of any business, assets or Capital Stock of a Restricted Subsidiary; *provided* that the maximum aggregate liability in respect of all such Indebtedness shall at no time exceed the gross proceeds actually received by the Company and the Restricted Subsidiaries in connection with such acquisition or disposition;

(12) the incurrence by the Company and the Restricted Subsidiaries of Indebtedness arising from the honoring by a bank or other financial institution of a check, draft or similar instrument inadvertently drawn against insufficient funds in the ordinary course of business, *provided*, *however*, that such Indebtedness is extinguished within five Business Days of incurrence;

(13) the incurrence by the Company or any Restricted Subsidiary of Indebtedness to the extent the net proceeds thereof are promptly deposited to defease the notes as described below under the caption "Legal Defeasance and Covenant Defeasance";

(14) the incurrence of Indebtedness consisting of (i) the financing of insurance premiums or (ii) take-or-pay obligations contained in supply arrangements, in each case, in the ordinary course of business;

(15) the incurrence of Indebtedness by the Company or any of its Restricted Subsidiaries (x) incurred or issued to finance any investment or acquisition or (y) Acquired Debt outstanding on the date on which such Person became a Restricted subsidiary or was acquired by or merged into the company or any Restricted Subsidiary in accordance with the terms of the Indenture; provided that, after giving effect to such acquisition, investment, merger, amalgamation or consolidation either: (a) (1) if such Indebtedness, is secured by a Lien, the Secured Leverage Ratio after giving effect to the incurrence of such Indebtedness and the use of proceeds thereof, shall not exceed 4.50 to 1.00, or (2) if such Indebtedness is unsecured, after giving effect to the incurrence of such Indebtedness and the use of proceeds thereof, the Fixed Charge Coverage Ratio of the Company and the Restricted Subsidiaries, shall be greater than or equal to 2.00 to 1.00; or (b) such Indebtedness constitutes Acquired Debt; provided that, in the case of this clause (b), the only obligors with respect to such Indebtedness shall be those Persons who were obligors of such Indebtedness prior to such acquisition, merger, amalgamation or consolidation and the Secured Leverage Ratio after giving effect to the incurrence of such Indebtedness and the use of proceeds thereof shall not exceed 5.00 to 1.00;

(16) Indebtedness of the Company or any Restricted Subsidiary constituting reimbursement obligations with respect to letters of credit or trade Guarantees issued in the ordinary course of business to the extent that such letters of credit or trade Guarantees are not drawn upon or, if drawn upon, to the extent such drawing is reimbursed no later than the 30 days following receipt by the Company or such Restricted Subsidiary of a demand for reimbursement;

(17) Guarantees in the ordinary course of business of the obligations of suppliers, customers, franchisees and licensees of the Company or any Restricted Subsidiary;

(18) to the extent constituting Indebtedness, (i) deferred compensation to employees of the Company and the Restricted Subsidiaries in the ordinary course of business, (ii) unfunded pension fund and other employee benefit plan obligations and liabilities to the extent that they are permitted to remain unfunded under applicable law, (iii) contingent liabilities arising out of endorsements of checks and other negotiable instruments for deposit or collection in the ordinary course of business and (iv) reserves established by the Company or any Restricted Subsidiary for litigation or tax contingencies;

(19) Indebtedness in an amount not to exceed $100 million issued in lieu of cash payments of Restricted Payments permitted by clause (5) of the covenant described under "—Restricted Payments";

(20) unsecured Indebtedness of the Company or any of its Restricted Subsidiaries owed to the employees or non-employees (in either case who are individuals) of the Company or any of its Restricted Subsidiaries in the ordinary course of business in an aggregate amount since the Issue Date not to exceed €500 million; and

(21) the incurrence by the Company or any Restricted Subsidiary of additional Indebtedness or the issuance by the Company of Disqualified Stock or preferred stock in an aggregate principal amount (or accreted value, as applicable) at any time outstanding, including all Indebtedness incurred to refund, refinance or replace any Indebtedness incurred pursuant to this clause (21), not to exceed $250 million.

(22) the incurrence of Indebtedness by the Issuer or Guarantors owed to EIB in an aggregate principal amount at any time outstanding not to exceed $500,000,000 and any Permitted Refinancing thereof with the European Investment Bank so long as the Notes Collateral Agent shall have become party to or otherwise subject to the provisions of the Pari Passu Intercreditor Agreement if not already a party to the Pari Passu Intercreditor Agreement; and

(23) the incurrence of Indebtedness by a Securitization Subsidiary in a Qualified Securitization Financing that is not recourse (except for Standard Securitization Undertakings) to any of the Issuer or the Guarantors provided however that such proceeds are used in accordance with the debt prepayment provision in "Asset Sales".

For purposes of determining compliance with this covenant, in the event that an item of proposed Indebtedness meets the criteria of more than one of the categories of Permitted Debt described in clauses (1) through (23) above as of the date of incurrence thereof or is entitled to be incurred pursuant to the first paragraph of this covenant, the Company shall, in its sole discretion, (x) at the time the proposed Indebtedness is incurred, classify all or a portion of that item of Indebtedness on the date of its incurrence under either the first paragraph of this covenant or under such category of Permitted Debt, as the case may be, (y) reclassify at a later date all or a portion of that or any other item of Indebtedness as being or having been incurred in any manner that complies with this covenant (so long as the Indebtedness being reclassified could have been incurred under the first paragraph or under such category of Permitted Debt on the date of its incurrence) and (z) elect to comply with this covenant and the applicable definitions in any order. The accrual of interest, the accretion or amortization of original issue discount, the payment of interest on any Indebtedness in the form of additional Indebtedness with the same terms, the reclassification of preferred stock as Indebtedness due to a change in accounting principles, and the payment of dividends on Disqualified Stock in the form of additional shares of the same class of Disqualified Stock will not be deemed to be an incurrence of Indebtedness or an issuance of Disqualified Stock for purposes of this covenant; *provided*, in each such case, that the amount of any such accrual, accretion or payment is included in the Company's Fixed Charges as accrued. Notwithstanding any other provision of this covenant, the maximum amount of Indebtedness that the Company or the Restricted Subsidiaries may incur pursuant to this covenant shall not be deemed to be exceeded solely as a result of fluctuations in exchange rates or currency values.

The Company will not incur any Indebtedness that is contractually subordinate or junior in right of payment to any Indebtedness of the Company unless such Indebtedness is also contractually subordinated

in right of payment to the notes and the applicable Guarantee on substantially identical terms; *provided*, *however*, that no Indebtedness of the Company will be deemed to be contractually subordinated in right of payment solely by virtue of being unsecured or secured by a junior Lien or by virtue of being structurally subordinated. No Guarantor will incur any Indebtedness that is subordinate or junior in right of payment to the Indebtedness of such Guarantor unless such Indebtedness is also contractually subordinated in right of payment to the notes and the applicable Guarantee on substantially identical terms; *provided*, *however*, that no Indebtedness of a Guarantor will be deemed to be contractually subordinated in right of payment solely by virtue of being unsecured or secured by a junior Lien.

The Company will not permit any Unrestricted Subsidiary to incur any Indebtedness other than Non-recourse Debt; *provided*, *however*, that if any such Indebtedness ceases to be Non-recourse Debt of an Unrestricted Subsidiary, such event shall be deemed to be an incurrence of Indebtedness by the obligors of such Indebtedness.

For purposes of determining compliance with any U.S. dollar-denominated restriction on the incurrence of Indebtedness, the U.S. dollar-equivalent principal amount of Indebtedness denominated in a foreign currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was incurred, in the case of term debt, or first committed, in the case of revolving credit debt; provided that if such Indebtedness is incurred to refinance other Indebtedness denominated in a foreign currency, and such refinancing would cause the applicable U.S. dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar-denominated restriction shall be deemed not to have been exceeded so long as the principal amount of such refinancing Indebtedness does not exceed (i) the principal amount of such Indebtedness being refinanced plus (ii) the aggregate amount of fees, underwriting discounts, premiums and other costs and expenses incurred in connection with such refinancing.

Liens

The Company will not, and will not permit any of the Restricted Subsidiaries to, directly or indirectly, create, incur, assume or suffer to exist any Lien of any kind securing Indebtedness, Attributable Debt or trade payables on any property, asset, or any proceeds therefrom ("*Initial Lien*"), now owned or hereafter acquired, except Permitted Liens, unless:

(1) in the case of Initial Liens on any Collateral, (i) such Initial Lien expressly has Junior Lien Priority on the Collateral relative to the notes and related Guarantees or (ii) such Lien is a Permitted Lien; or

(2) in the case of any Initial Lien on any asset or property that is not Collateral, (i) the notes or the Guarantees are equally and ratably secured with (or on a senior basis to, in the case such Initial Lien secured any Subordinated Indebtedness) the Obligations secured by such Initial Lien until such time as such Obligations are no longer secured by such Initial Lien or (ii) such Initial Lien is a Permitted Lien, except that the foregoing shall not apply to Liens securing the notes and the related Guarantees.

Any Lien created for the benefit of the Holders of the notes pursuant to the immediately preceding paragraph shall automatically and unconditionally be released and discharged upon the release and discharge of the Primary Lien, without any further action on the part of any Person.

With respect to any Lien securing Indebtedness that was permitted to secure such Indebtedness at the time of the incurrence of such Indebtedness, such Lien shall also be permitted to secure any Increased Amount of such Indebtedness. The "*Increased Amount*" of any Indebtedness in connection with any accrual of interest, the accretion of accreted value, the amortization of original issue discount, the payment of interest in the form of additional Indebtedness with the same terms, accretion of original issue discount or liquidation preference and increases in the amount of Indebtedness outstanding solely as a result of fluctuations in the exchange rate of currencies or increases in the value of property securing Indebtedness.

Dividend and Other Payment Restrictions Affecting Restricted Subsidiaries

The Company will not, and will not permit any of the Restricted Subsidiaries to, directly or indirectly, create or permit to exist or become effective any consensual encumbrance or restriction on the ability of any Restricted Subsidiary to:

(1) pay dividends or make any other distributions on or in respect of its Capital Stock to the Company or any Restricted Subsidiary, or with respect to any other interest or participation in, or measured by, its profits, or pay any Indebtedness owed to the Company or any other Restricted Subsidiary, *provided* that

the priority of any preferred stock in receiving dividends or liquidation distributions prior to dividends or liquidation distributions being paid on any common stock shall not be deemed to constitute such encumbrance or restriction.

(2) make any loans or advances to the Company or any other Restricted Subsidiary;

(3) transfer any of its properties or assets to the Company or any other Restricted Subsidiary; or

(4) Guarantee the Company's or any Restricted Subsidiary's Indebtedness.

However, the preceding restrictions will not apply to encumbrances or restrictions existing under or by reason of:

(1) any Credit Facility (including the Credit Agreement and the EIB Facility), the Existing Notes and any other agreements as in effect on the Issue Date or subsequent agreements relating to Indebtedness, Disqualified Stock or preferred stock of the Company or any Restricted Subsidiary and any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings of those agreements; *provided* that the amendments, modifications, restatements, renewals, increases, supplements, refundings, replacement or refinancings are not materially more restrictive, taken as a whole, with respect to such dividend and other payment restrictions than those contained in those agreements on the Issue Date unless in the good faith determination of the Company, such restrictions are not likely to result in the Company being unable to make scheduled payments of principal and interest on the notes as they come due;

(2) the Indenture, the notes and the Guarantees;

(3) applicable law, rules, regulations and orders;

(4) any instrument governing Indebtedness or Capital Stock of a Person acquired by the Company or any Restricted Subsidiary as in effect at the time of such acquisition, which encumbrance or restriction is not applicable to any Person, or the properties or assets of any Person, other than the Person, or the property or assets of the Person, so acquired; *provided* that, in the case of Indebtedness, such Indebtedness was permitted by the terms of the Indenture to be incurred;

(5) customary non assignment provisions in contracts, licenses and leases entered into in the ordinary course of business;

(6) purchase money obligations for property acquired in the ordinary course of business and Capital Lease Obligations that impose restrictions on the property purchased or leased of the nature described in clause (3) of the preceding paragraph;

(7) any agreement for the sale or other disposition of a Restricted Subsidiary or of all or substantially all of its assets that restricts distributions of assets by, or Equity Interests of, that Restricted Subsidiary pending its sale or other disposition;

(8) Permitted Refinancing Indebtedness; *provided* that the restrictions contained in the agreements governing such Permitted Refinancing Indebtedness are not materially more restrictive, taken as a whole, than those contained in the agreements governing the Indebtedness being refinanced;

(9) Liens permitted to be incurred under the provisions of the "—Liens" covenant that limit the right of the debtor to dispose of the assets subject to such Liens;

(10) restrictions on cash or other deposits or net worth imposed by customers (including governmental entities) under contracts entered into in the ordinary course of business;

(11) provisions limiting the disposition or distribution of assets or property in joint venture agreements, asset sale agreements, sale and leaseback transactions, stock sale agreements and other similar agreements entered into in the ordinary course of business or with the approval of the Company's Board of Directors, which limitation is applicable only to the assets that are the subject of such agreements;

(12) any encumbrance or restriction on our ability or the ability of any Restricted Subsidiary to transfer its interest in any Investment not prohibited under "—Restricted Payments;"

(13) customary restrictions imposed on the transfer of, or in licenses related to, copyrights, patents or other intellectual property and contained in agreements entered into in the ordinary course of business;

(14) any other agreement governing Indebtedness, preferred stock or Disqualified Stock entered into after the Issue Date that contains encumbrances and restrictions that are not more restrictive than would be permitted by clause (1) of this paragraph;

(15) restrictions created in connection with any Qualified Securitization Financing that, in the good faith determination of the Board of Directors of the Company, are necessary or advisable to effect such Qualified Securitization Financing; and

(16) agreements pursuant to any tax sharing arrangement between the Company and any one or more of its direct or indirect Subsidiaries.

Merger, Consolidation or Sale of Assets

The Company may not, directly or indirectly:

(1) consolidate or merge with or into another Person (whether or not the Company is the surviving entity); or

(2) sell, assign, transfer, lease, convey (not including any conveyance, if any, resulting solely from the creation of any Lien, unless remedies are exercised in connection therewith) or otherwise dispose of all or substantially all of the properties and assets of the Company and its Restricted Subsidiaries, taken as a whole, in one or more related transactions, to another Person or Persons; unless:

(a) either: (x) the Company is the surviving entity; or (y) the Person formed by or surviving any such consolidation or merger (if other than the Company) or to which such sale, assignment, transfer, lease, conveyance or other disposition has been made is a corporation, limited partnership or limited liability company organized or existing under the laws of any member state of the European Union, the United Kingdom, Switzerland, Canada, any state of the United States or the District of Columbia;

(b) the Person formed by or surviving any such consolidation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all obligations of the Company under the notes and the Indenture, the Security Documents and the Pari Passu Intercreditor Agreement, pursuant to an agreement in a form reasonably satisfactory to the Trustee;

(c) immediately after such transaction no Default or Event of Default exists; and

(d) the Company or the Person formed by or surviving any such consolidation or merger (if other than the Company), or to which such sale, assignment, transfer, conveyance or other disposition has been made would, on the date of such transaction after giving *pro forma* effect thereto and any related financing transactions as if the same had occurred at the beginning of the applicable four-quarter period, (i) be permitted to incur at least $1.00 of additional Indebtedness pursuant to the Fixed Charge Coverage Ratio test set forth in the "—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock" covenant or (ii) the Company's Fixed Charge Coverage Ratio would not be less than the Company's Fixed Charge Coverage Ratio immediately prior to such transaction or series of transactions.

In addition, the Company and its Restricted Subsidiaries may not, directly or indirectly, lease all or substantially all of the Company's and its Restricted Subsidiaries' properties and assets, taken as a whole, in one or more related transactions, to any other Person.

The Person formed by or surviving any consolidation or merger (if other than the Company) will succeed to, and be substituted for, and may exercise every right and power of the Company under the Indenture; *provided* that the Company shall not be released in the case of a lease of all or substantially all of its assets.

Clauses (c) and (d) of the first paragraph of this "Merger, Consolidation or Sale of Assets" covenant will not apply to:

(1) a merger of the Company with an Affiliate solely for the purpose of reincorporating the Company in another jurisdiction; or

(2) any consolidation or merger, or any sale, assignment, transfer, conveyance, lease or other disposition of assets between or among the Company and its Restricted Subsidiaries.

Designation of Restricted and Unrestricted Subsidiaries

The Company's Board of Directors may designate any Restricted Subsidiary to be an Unrestricted Subsidiary if that designation would not cause a Default. If a Restricted Subsidiary is designated as an Unrestricted Subsidiary, the aggregate fair market value of all outstanding Investments owned by the Company and the Restricted Subsidiaries in the Subsidiary properly designated will be deemed to be an Investment made as of the time of the designation and will reduce the amount available for Restricted Payments under the first paragraph of the "—Restricted Payments" covenant or Permitted Investments, as determined by the Company. That designation will only be permitted if the Investment would be permitted at the time and if the Restricted Subsidiary otherwise meets the definition of an Unrestricted Subsidiary. The Company's Board of Directors may redesignate any Unrestricted Subsidiary to be a Restricted Subsidiary if the redesignation would not cause a Default.

Transactions with Affiliates

The Company will not, and will not permit any of the Restricted Subsidiaries to, make any payment to, or sell, lease, transfer or otherwise dispose of any of the Company's or the Restricted Subsidiaries' respective properties or assets to, or purchase any property or assets from, or enter into or make or amend any transaction, contract, agreement, understanding, loan, advance or guarantee with, or for the benefit of, any Affiliate involving aggregate payments of consideration in excess of $62.5 million (each, an "*Affiliate Transaction*"), unless:

(1) the Affiliate Transaction is on terms that taken as a whole are no less favorable to the Company or the relevant Restricted Subsidiary than those that would have been obtained in a comparable transaction by the Company or such Restricted Subsidiary with an unrelated Person; and

(2) with respect to any Affiliate Transaction or series of related Affiliate Transactions involving aggregate consideration in excess of $125 million, a majority of the Company's Board of Directors (and, if any, a majority of the disinterested members of the Company's Board of Directors with respect to such transaction) confirms that such Affiliate Transaction complies with this covenant.

The following items will not be deemed to be Affiliate Transactions and, therefore, will not be subject to the provisions of the prior paragraph:

(1) any customary consulting or employment agreement or arrangement, benefit arrangement or plan, incentive compensation plan, stock option or stock ownership plan, employee benefit plan, severance or termination arrangements, expense reimbursement arrangements, officer or director indemnification agreement or any similar arrangement entered into by the Company or any of the Restricted Subsidiaries for the benefit of their directors, officers, employees and consultants and payments and transactions pursuant thereto, in each case, in the ordinary course of business;

(2) transactions between or among the Company and/or the Restricted Subsidiaries;

(3) payment of reasonable directors compensation and indemnification costs permitted by the Company's and the Restricted Subsidiaries' organizational documents for the benefit of directors, officers and employees, in each case, in the ordinary course of business;

(4) Permitted Investments or Restricted Payments that are permitted by the "—Restricted Payments" covenant;

(5) any agreement (including any certificate of designations relating to Capital Stock) as in effect as of the Issue Date or any amendment thereto or any transaction contemplated thereby (including pursuant to any amendment thereto) in any replacement agreement thereto so long as any such amendment or replacement agreement is not more disadvantageous to the Holders in any material respect than the original agreement as in effect on the Issue Date;

(6) the granting or performance of customary registration rights in respect of restricted Equity Interests held or acquired by Affiliates;

(7) loans and advances to employees in the ordinary course of business not to exceed $62.5 million in the aggregate amount at any one time outstanding;

(8) the consummation of the Transactions and the payment of all fees, expenses and other amounts, and the performance of all obligations of the Company and the Restricted Subsidiaries, in connection therewith;

(9) transactions with customers, clients, suppliers or purchasers or sellers of goods or services, in each case, in the ordinary course of business and consistent with past practice and on terms that are not materially less favorable to the Company or such Restricted Subsidiary, as the case may be, determined in good faith by the Company, that those that could be obtained in a comparable arm's length transaction with a Person that is not an Affiliate of the Company;

(10) the issuance or repurchase of Equity Interests (other than Disqualified Stock) of the Company to any Affiliate of the Company;

(11) licenses of, or other grants of rights to use, intellectual property granted by the Company or any Restricted Subsidiary in the ordinary course of business;

(12) any transactions disclosed under "Certain Relationships and Related Party Transactions" and any amendment thereto or any transaction contemplated thereby (including pursuant to an amendment thereto) in any replacement agreement thereto so long as any such amendment or replacement agreement is not more disadvantageous to the Holders in any material respect than the original agreements as in effect on the Issue Date; and

(13) transactions in which the Company or any Restricted Subsidiary, as the case may be, receives a letter from an independent financial advisor stating that such transaction is fair to the Company or such Restricted Subsidiary from a financial point of view or meets the requirements of clause (1) of the preceding paragraph.

Additional Guarantees

If the Company or any Restricted Subsidiary acquires or creates another Restricted Subsidiary (other than any Immaterial Subsidiary) after the Issue Date that guarantees any Obligations under any Credit Facility or any other Pari Passu Lien Obligation or Obligation with Junior Lien Priority, then that newly acquired or created Restricted Subsidiary will execute and deliver to the Trustee a supplemental Indenture providing for a Guarantee and deliver an opinion of counsel satisfactory to the Trustee as to the due authorization, execution and delivery and the enforceability of such Guarantee within 45 Business Days of the date on which it was acquired or created.

Each Person that becomes a Guarantor after the Issue Date shall also become a party to the applicable Security Documents and Intercreditor Agreements (as applicable) and shall as promptly as practicable execute and deliver such security instruments, financing statements, mortgages, deeds of trust and other related real estate deliverables (in substantially the same form as those executed and delivered with respect to the Collateral on the Issue Date or on the date first delivered in the case of Collateral that the Indenture provides may be delivered after the Issue Date (to the extent, and substantially in the form, delivered on the Issue Date or the date first delivered, as applicable (but no greater scope)) as may be necessary to vest in the Notes Collateral Agent a perfected first-priority security interest (subject to Permitted Liens) in properties and assets that constitute Collateral as security for such Guarantor's Guarantee and as may be necessary to have such property or asset added to the Collateral as required under the Security Documents and the Indenture and thereupon all provisions of the Indenture relating to the Collateral shall be deemed to relate to such properties and assets to the same extent and with the same force and effect.

Each additional Guarantee will be limited as necessary to recognize certain defenses generally available to Guarantors (including those that relate to fraudulent conveyance or transfer, voidable preference, financial assistance, corporate purpose, capital maintenance or similar laws, regulations or defenses affecting the rights of creditors generally) or other considerations under applicable law.

Maintenance of Listing

The Company will use its commercially reasonable efforts to maintain the listing of the notes on the official list of the Irish Stock Exchange and trading on its Global Exchange Market for so long as such notes are outstanding; *provided* that if at any time the Company determines that it will not maintain such listing, it will obtain prior to the delisting of the notes from the official list of the Irish Stock Exchange, and thereafter use its commercially reasonable efforts to maintain, a listing of such notes on another recognized stock exchange or exchange regulated market in western Europe. The Company will notify the Trustee in writing of any delisting or change in listing.

Reports

Whether or not required by rules and regulations of the SEC, so long as any notes are outstanding, the Company will furnish to the Trustee:

(1) within the time periods specified in the SEC's rules and regulations, all annual financial information that would be required to be contained in a filing with the SEC on Form 20-F if the Company were a "foreign private issuer" required to file such Form pursuant to Section 13(a) or 15(d) of the Exchange Act or any successor provision thereto, including an "Operating and Financial Review and Prospects" and a report on the Company's consolidated annual financial statements by the Company's certified independent accountants; and

(2) within 60 days of the first three fiscal quarters of each fiscal year of the Company, quarterly financial information prepared on a substantially consistent basis as the audited financial information referred to in clause (1) above, together with a narrative report describing the operations of the Company and its Subsidiaries in the form prepared for presentation to senior management thereof for such fiscal quarter.

The Company will be deemed to have furnished such reports to the Trustee and the Holders if the Company has filed such information or reports with the SEC via the EDGAR filing system and such information or reports are publicly available or if the Company files annual and quarterly reports with the SEC as required for a domestic issuer.

Delivery of such reports, information and documents to the Trustee shall be for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of the covenants contained in the Indenture (as to which the Trustee will be entitled to conclusively rely upon an officer's certificate).

The Company and the Guarantors have agreed that, for so long as any notes remain outstanding, if at any time the Company is not required to file with the SEC the information and reports required by clauses (1) and (2) above, the Company will furnish to the Holders and to securities analysts and prospective investors, upon their request, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

Notwithstanding anything herein to the contrary, the Company will not be deemed to have failed to comply with any of its agreements hereunder for purposes of clause (4) under "—Events of Default and Remedies" until 120 days after the date any information or report hereunder is required to be furnished to Holders of notes or filed with the SEC pursuant to this covenant.

Events of Default and Remedies

Each of the following is an "*Event of Default*" with respect to notes of a series under the Indenture:

(1) default for 30 days in the payment when due of interest on the notes of such series;

(2) default in payment when due of the principal of or premium, if any, on the notes of such series;

(3) failure by the Company or any Restricted Subsidiary to comply with the "—Merger, Consolidation or Sale of Assets" covenant or with the provision described under the heading "Repurchase at the Option of Holders—Change of Control";

(4) failure by the Company or any Restricted Subsidiary for 60 days after notice to comply with any other covenant or agreement in the Indenture or the notes of a series after written notice thereof is given to the Company by the Trustee or to the Company and the Restricted Subsidiaries and to the Trustee by Holders of at least 25% in aggregate principal amount of the then outstanding notes of such series voting as a single class;

(5) default under any agreement, bond, mortgage, Indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by the Company or any Restricted Subsidiary (or the payment of which is guaranteed by the Company or any Restricted Subsidiary) whether such Indebtedness or Guarantee now exists, or is created after the Issue Date, if that default:

(a) is caused by a failure to pay any scheduled installment of principal on such Indebtedness prior to the expiration of the grace period provided in such Indebtedness on the date of such default (a "*Payment Default*"); or

(b) results in the acceleration of such Indebtedness prior to its express maturity,

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a Payment Default or the maturity of which has been so accelerated, aggregates $375.0 million or more or such acceleration is with respect to the EIB Obligations; *provided*, *however*, where (i) neither the Company nor any Restricted Subsidiary has general liability with respect to such Indebtedness, and (ii) the creditor has agreed in writing that such creditor's recourse is solely to specified assets or Unrestricted Subsidiaries, the amount of such Indebtedness shall be deemed to be the lesser of (x) the principal amount of such Indebtedness, and (y) the fair market value of such specified assets to which the creditor has recourse;

(6) failure by the Company or any Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary to pay final and non-appealable judgments entered by a court or courts of competent jurisdiction aggregating in excess of $375.0 million (net of any amounts covered by insurance), which judgments are not paid, discharged or stayed for a period of 60 days;

(7) except as permitted by the Indenture, any Guarantee of a Significant Subsidiary, or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, shall be held in any judicial proceeding to be unenforceable or invalid or shall cease for any reason to be in full force and effect or any Guarantor that is a Significant Subsidiary, or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, or any Person acting on behalf of any Guarantor that is a Significant Subsidiary, or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary, shall deny or disaffirm in writing its obligations under its Guarantee;

(8) certain events of bankruptcy or insolvency described in the Indenture with respect to the Company or any Restricted Subsidiary that is a Significant Subsidiary or any group of Restricted Subsidiaries that, taken together, would constitute a Significant Subsidiary; and

(9) any Security Document ceases to be in full force and effect (other than by reason of a release of Collateral in accordance with the terms of the Indenture or Pari Passu Intercreditor Agreement or the satisfaction in full of the notes Obligations in accordance with the terms of the Indenture) or shall be declared null and void, or the Notes Collateral Agent shall not have or shall cease to have a valid and perfected Lien in any Collateral purported to be covered by the Security Documents with the priority required by the relevant Security Document, in each case for any reason other than the failure of the Collateral Agent or any Secured Party to take any action within its control.

In the case of an Event of Default arising from certain events of bankruptcy or insolvency, with respect to the Company, all outstanding notes will become due and payable immediately without further action or notice. If any other Event of Default occurs and is continuing, the Trustee or the Holders of at least 25% in aggregate principal amount of the then outstanding notes of a series may declare all the notes of such series to be due and payable immediately.

Holders of the notes may not enforce the Indenture or the notes except as provided in the Indenture. Subject to certain limitations, Holders of a majority in aggregate principal amount of the then outstanding notes of a series may direct the Trustee in its exercise of any trust or power with respect to such series. The Trustee may withhold from Holders of the notes of a series notice of any continuing Default or Event of Default with respect to such series if it determines that withholding notices is in their interest, except a Default or Event of Default relating to the payment of principal or interest.

Subject to the provisions of the Indenture relating to the duties of the Trustee, in case an Event of Default occurs and is continuing, neither the Trustee nor the Notes Collateral Agent will be under any obligation to exercise any of the rights or powers under the Indenture at the request or direction of any Holders of notes of a series unless such Holders have offered to the Trustee and the Notes Collateral Agent, as applicable, indemnity or security, satisfactory to it, against any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, or interest when due, no Holder of a note of any series may pursue any remedy with respect to the Indenture or the notes of such series unless:

(1) such Holder has previously given the Trustee notice that an Event of Default is continuing;

(2) Holders of at least 25% in aggregate principal amount of the then outstanding notes of such series have requested the Trustee to pursue the remedy;

(3) such Holders have offered, and, if requested, have provided, the Trustee security or indemnity reasonably satisfactory to it against any loss, liability or expense;

(4) the Trustee has not complied with such request within 60 days after the receipt of the request and the offer of security or indemnity; and

(5) Holders of a majority in aggregate principal amount of the then outstanding notes of such series have not given the Trustee a direction inconsistent with such request within such 60-day period.

The Holders of a majority in aggregate principal amount of the notes of a series then outstanding by notice to the Trustee may on behalf of the Holders of all of the notes of such series rescind an acceleration or waive any existing Default or Event of Default and its consequences under the Indenture except a continuing Default or Event of Default in the payment of interest on, or the principal of, the notes of such series.

The Company is required to deliver to the Trustee annually a statement regarding compliance with the Indenture. Within 20 Business Days of an executive officer becoming actually aware of any Default or Event of Default, the Company is required to deliver to the Trustee a statement specifying such Default or Event of Default.

No Personal Liability of Directors, Officers, Employees and Stockholders

No past, present or future director, officer, employee, partner, manager, agent, member, incorporator (or Person forming any limited liability company) or stockholder of the Company or of any Guarantor, as such, will have any liability for any obligations of the Company or of the Guarantors under the notes, the Indenture, the Guarantees, or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder of notes by accepting a note and guarantee waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes and guarantees. The waiver may not be effective to waive liabilities under the U.S. federal securities laws.

Legal Defeasance and Covenant Defeasance

The Company may, at its option and at any time, elect to have all of the Company's obligations discharged with respect to the outstanding notes of any series and all obligations of the Guarantors with respect to such series discharged with respect to their Guarantees ("*Legal Defeasance*") except for:

(1) the rights of Holders of outstanding notes of such series to receive payments in respect of the principal of, or interest or premium on, such notes of such series when such payments are due from the trust referred to below;

(2) the Company's obligations with respect to the notes of such series concerning issuing temporary notes, mutilated, destroyed, lost or stolen notes of such series and the maintenance of an office or agency for payment and money for security payments held in trust;

(3) the rights, powers, trusts, duties and immunities of the Trustee, and the Company's and the Guarantors' obligations with respect to such series in connection therewith; and

(4) the Legal Defeasance and Covenant Defeasance provisions of the Indenture.

In addition, the Company may, at its option and at any time, elect to have the Company's obligations and the obligations of the Guarantors released with respect to certain covenants (including the obligation to make Change of Control Offers and Asset Sale Offers) that are described in the Indenture ("*Covenant Defeasance*") and thereafter any omission to comply with those covenants will not constitute a Default or Event of Default with respect to such series of notes. In the event Covenant Defeasance occurs, certain events (not including non-payment, bankruptcy, receivership, rehabilitation and insolvency events) described under the heading "—Events of Default and Remedies" will no longer constitute an Event of Default with respect to such series of the notes.

In order to exercise either Legal Defeasance or Covenant Defeasance:

(1) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the Holders of the notes of a series, cash in euros, non-callable Government Securities, or a combination of cash in euros and non-callable Government Securities, in amounts as will be sufficient, in the opinion of an internationally recognized investment bank, appraisal firm or firm of independent public accountants as selected by the Company, to pay the principal of, or interest and premium on the outstanding notes of such series on the Stated Maturity or on the applicable redemption date, as the case may be, and the Company must specify whether the notes of such series are being defeased to maturity or to a particular redemption date;

(2) in the case of Legal Defeasance, the Company must deliver to the Trustee an opinion of U.S. counsel reasonably acceptable to the Trustee (which opinion of counsel may be subject to customary assumptions and exclusions) confirming that (a) the Company has received from, or there has been published by, the Internal Revenue Service a ruling or (b) since the Issue Date, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such opinion of U.S. counsel will confirm that, the Holders of the outstanding notes of such series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Legal Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(3) in the case of Covenant Defeasance, the Company must deliver to the Trustee an opinion of U.S. counsel reasonably acceptable to the Trustee (which opinion of counsel may be subject to customary assumptions and exclusions) confirming that the Holders of the outstanding notes of such series will not recognize income, gain or loss for U.S. federal income tax purposes as a result of such Covenant Defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(4) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit);

(5) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (including, without limitation, the Credit Agreement, but excluding the Indenture) to which the Company or any Guarantor is a party or by which the Company or any Guarantor is bound;

(6) the Company must deliver to the Trustee an officer's certificate stating that the deposit was not made by the Company with the intent of preferring the Holders of notes of such series over the Company's or any Restricted Subsidiary's other creditors with the intent of defeating, hindering, delaying or defrauding the Company's or any Restricted Subsidiary's creditors or others; and

(7) the Company must deliver to the Trustee an officer's certificate and a customary opinion of U.S. counsel (which opinion of counsel may be subject to customary assumptions and exclusions), each stating that all conditions precedent relating to the Legal Defeasance or the Covenant Defeasance have been complied with.

Amendment, Supplement and Waiver

Except as provided in the next three succeeding paragraphs, the Indenture or the notes or the Guarantees may be amended or supplemented with the consent of the Holders of at least a majority in aggregate principal amount of the notes then outstanding (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes), and any existing Default or Event of Default or compliance with any provision of the Indenture or the notes or the Guarantees may be waived with the consent of the Holders of a majority in aggregate principal amount of the then outstanding notes (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes); *provided* that (x) if any such amendment, supplement or waiver will only affect one series of Notes (or less than all series of Notes) then outstanding under the Indenture, then only the consent of the Holders of a majority in principal amount of the Notes of such series then outstanding (including, in each case, consents obtained in connection with a tender offer or exchange offer for Notes) shall be required and (y) if any such amendment or waiver by its terms will affect a series of Notes in a manner different and materially adverse relative to the manner such amendment or waiver affects other series of Notes, then the consent of the Holders of a majority in principal amount of the Notes of such series then outstanding (including, in each case, consents obtained in connection with a purchase of or tender offer or exchange offer for Notes) shall be required..

Without the consent of each Holder of notes of the applicable series of notes adversely affected, an amendment, supplement or waiver may not (with respect to any notes held by a non-consenting Holder):

(1) reduce the principal amount of notes of such series whose Holders must consent to an amendment, supplement or waiver;

(2) reduce the principal of or change the fixed maturity of any note of such series or alter the provisions with respect to the redemption of the notes (other than the minimum notice provisions required with respect to redemption of the notes);

(3) reduce the rate of or change the time for payment of interest on the notes of such series (other than the minimum notice provisions required with respect to redemption of such series);

(4) waive a Default or Event of Default in the payment of principal of, or interest or premium on the notes of such series (except a rescission of acceleration of the notes of such series by the Holders of at least a majority in aggregate principal amount of the then outstanding notes of such series and a waiver of the Payment Default that resulted from such acceleration);

(5) make any note of such series payable in currency other than that stated in the notes;

(6) impair the right of any Holder of such series to institute suit for the enforcement of any payment of principal of and interest on such Holder's Notes of such series on or after the due dates therefor;

(7) waive a redemption payment with respect to any note of such series (other than a payment required by one of the covenants);

(8) make any change in the preceding amendment and waiver provisions; or

(9) release all or substantially all of the Guarantors from their Guarantees, in each case, except in accordance with the Indenture.

Additionally, without the consent of Holders of at least 90% in principal amount of the notes then outstanding of a series, no such amendment, waiver or modification will release all or substantially all of the Collateral from the Liens securing such series of notes and Guarantees or change or alter the priority of the Liens.

Notwithstanding the preceding, without the consent of any Holder of notes, the Company, the Guarantors, the Trustee and/or the Notes Collateral Agent, as applicable, may amend or supplement the Indenture, the notes of any series, the Guarantees, the Pari Passu Intercreditor Agreement or the Security Documents:

(1) to cure any ambiguity, mistake, defect or inconsistency;

(2) to provide for uncertificated notes of such series in addition to or in place of certificated notes;

(3) to provide for the assumption by a successor corporation of the Company's or a Guarantor's obligations under the notes, the Indenture, the Security Documents and/or a Guarantee in the case of a merger or consolidation or sale of all or substantially all of the Company's or such Guarantor's assets;

(4) to make any change that would provide any additional rights or benefits to the Holders of notes or that does not adversely affect the legal rights under the Indenture of any such Holder;

(5) to add additional assets as Collateral or to release Collateral from the Lien pursuant to the Indenture and the Security Documents when permitted or required by the Indenture, the Security Documents and/or the Pari Passu Intercreditor Agreement or to modify the Security Documents and/or the Pari Passu Intercreditor Agreement to secure additional extensions of credit and add additional secured creditors holding Obligations that are permitted to constitute Pari Passu Lien Obligations under the Security Documents pursuant to the terms of the Indenture;

(6) add covenants for the benefit of the Holders or to surrender any right or power conferred upon the Company or any Guarantor;

(7) to add a Guarantor under the Indenture;

(8) to conform the text of the Indenture, the Guarantees or the notes to any provision of this "Description of Notes" to the extent that such provision in this "Description of Notes" was intended to be a verbatim recitation of a provision of the Indenture, Guarantee or the notes;

(9) to provide for the issuance of additional notes of a series in accordance with the limitations as set forth in the Indenture;

(10) to provide for a successor Trustee or Notes Collateral Agent in accordance with the terms of the Indenture or Security Documents, as applicable, or to otherwise comply with any requirement of the Indenture or Security Documents; or

(11) to comply with the rules of any applicable securities depositary.

Where the consent of the Holders of the notes of a series is required to approve an amendment, supplement, waiver or consent under the Indenture, it is not necessary for the consent of the Holders of notes of such series to approve the particular form of any proposed amendment, supplement, waiver and

consent, but it is sufficient if such consent approves the substance thereof. For the avoidance of doubt, no amendment to, or deletion of, any of the covenants described above under "Certain Covenants" shall be deemed to impair or affect any rights of Holders to receive payment of principal of, or premium, if any, or interest, if any, in respect of the notes.

For the avoidance of doubt, the determination of whether any amendment, supplement or waiver has been consented to by holders of a series of notes shall, where applicable, include any additional notes of such series that have been issued under the Indenture at any time prior to, concurrently or contemporaneously with the time that such amendment, supplement or waiver becomes operative. The Trustee shall not be obligated to enter into any such amended or supplemented Indenture that affects its own rights, duties or immunities under such Indenture or otherwise.

Satisfaction and Discharge

The Indenture will be discharged and will cease to be of further effect as to all notes of a series issued thereunder, when:

(1) either:

(a) all notes of such series that have been authenticated, except lost, stolen or destroyed notes that have been replaced or paid and notes of such series for whose payment money has been deposited in trust, have been delivered to the Trustee for cancellation; or

(b) all notes of such series that have not been delivered to the Trustee for cancellation have become due and payable by reason of the delivery of a notice of redemption or otherwise or will become due and payable within one year, and the Company has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust solely for the benefit of the Holders of notes of such series, cash in euros, non-callable Government Securities, or a combination of cash in euros and non-callable Government Securities, in such amounts as will be sufficient without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness on the notes of such series not delivered to the Trustee for cancellation for principal, premium and accrued interest to the date of maturity or redemption;

(2) no Default or Event of Default has occurred and is continuing on the date of the deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit) and the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Company or any Guarantor is a party or by which the Company or any Guarantor is bound;

(3) the Company or any Guarantor has paid or caused to be paid all other sums payable by the Company under the Indenture with respect to such series of notes; and

(4) the Company has delivered irrevocable instructions to the Trustee under the Indenture to apply the deposited money and/or non-callable Government Securities toward the payment of the notes of such series at maturity or the redemption date, as the case may be.

In addition, the Company must deliver an officer's certificate and an opinion of counsel (which opinion of counsel may be subject to customary assumptions and exclusions) to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

Concerning the Trustee

The Indenture will provide that, except during the continuance of an Event of Default, the Trustee thereunder will perform only such duties as are specifically set forth in the Indenture. If an Event of Default has occurred and is continuing, the Trustee will exercise such rights and powers vested in it under the Indenture and use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

If the Trustee becomes a creditor of the Company or of any Guarantor, the Indenture limits its right to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions; however, if it acquires any conflicting interest, it must (i) eliminate such conflict within 90 days or (ii) resign.

The Holders of a majority in aggregate principal amount of the then outstanding notes will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee, subject to certain exceptions. The Indenture provides that in case an Event of Default occurs

and is continuing, the Trustee will be required, in the exercise of its power, to use the degree of care of a prudent man in the conduct of his own affairs. Subject to such provisions, the Trustee will be under no obligation to exercise any of its rights or powers under the Indenture at the request of any Holder of notes, unless such Holder has offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

The Indenture provides that neither the Trustee nor the Notes Collateral Agent shall be responsible for the existence, genuineness, value or protection of any Collateral (except for the safekeeping of Collateral in its possession), for the legality, effectiveness or sufficiency of any Security Document, or for the creation, perfection, priority, sufficiency or protection of any Lien securing the notes and Guarantees.

Judgment Currency

Euro is the sole currency of account and payment for all sums payable by the Company or any Guarantor under the notes, any Guarantee thereof and the Indenture. Any payment on account of an amount that is payable in Euro, in respect of the notes, which is made to or for the account of any Holder or the Trustee in lawful currency of any other jurisdiction (the "*Judgment Currency*"), whether as a result of any judgment or order or the enforcement thereof or the liquidation of the Company or any Guarantor, shall constitute a discharge of the Company or the Guarantor's obligation under the Indenture and the notes or Guarantee and/or any supplemental Indenture, as the case may be, only to the extent of the amount of Euro which such Holder could purchase in the London foreign exchange markets with the amount of the Judgment Currency in accordance with normal banking procedures at the rate of exchange prevailing on the first Business Day following receipt of the payment in the Judgment Currency. If the amount of Euro that could be so purchased is less than the amount of Euro originally due to such Holder or the Trustee, as the case may be, the Company and the Guarantors shall indemnify and hold harmless the Holder or the Trustee, as the case may be, from and against all loss or damage arising out of, or as a result of, such deficiency. The indemnity shall constitute an obligation separate and independent from the other obligations contained in this Indenture or the notes, shall give rise to a separate and independent cause of action, shall apply irrespective of any indulgence granted by any Holder or the Trustee from time to time and shall continue in full force and effect notwithstanding any judgment or order for a liquidated sum in respect of an amount due hereunder or under any judgment or order.

Listing

Application has been made to list the notes on the official list of the Euronext Dublin and to admit the notes to trading on the Global Exchange Market of the Euronext Dublin. There can be no assurance that the application to list the notes on the official list of the Euronext Dublin and to admit the notes on the Global Exchange Market of the Euronext Dublin will be approved and settlement of the notes is not conditioned on obtaining this listing.

Governing Law

The Indenture, the notes and the Pari Passu Intercreditor Agreement will be governed by the laws of the State of New York, without regard to the principles of conflicts of law that would result in the application of the laws of another jurisdiction. The Security Documents will be governed by the laws of the State of New York or the laws of the location of the relevant asset that is part of the Collateral, as applicable.

Consent to Jurisdiction and Service of Process

The Indenture will provide that the Company and each Guarantor will appoint Grifols Shared Services North America, Inc., with the address 2410 Lillyvale Ave., Los Angeles, CA 90032-3514 as its agent for service of process in any suit, action or proceeding with respect to the Indenture, the notes and the Guarantees brought in federal or state court located in the City of New York and will submit to such jurisdiction.

Enforceability of Judgments

Since a substantial portion of the assets of the Company and the Guarantors are outside of the United States, any judgment obtained in the United States against the Company or any Guarantor may not be collectable within the United States.

Certain Definitions

Set forth below are certain defined terms used in the Indenture. Reference is made to the Indenture for a full disclosure of all such terms, as well as any other capitalized terms used herein for which no definition is provided.

"*Acquired Debt*" means, with respect to any specified Person:

(1) Indebtedness of any other Person existing at the time such other Person is merged with or into or became a Subsidiary of such specified Person, whether or not such Indebtedness is incurred in connection with, or in contemplation of, such other Person merging with or into, or becoming a Subsidiary of, such specified Person; and

(2) Indebtedness secured by a Lien encumbering any asset acquired by such specified Person.

"*Additional Amounts*" has the meaning set forth under "—Additional Amounts."

"*Affiliate*" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, "control," as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; *provided* that beneficial ownership of 10% or more of the Voting Stock of a Person will be deemed to be control. For purposes of this definition, the terms "controlling," "controlled by" and "under common control with" have correlative meanings.

"*Agreed Security Principles*" means those principles set forth in Schedule 1.01(c) to the Credit Agreement, as applied mutatis mutandis with respect to the notes in good faith.

"*2025 Notes Applicable Premium*" means, as determined by the Company, with respect to any 2025 note on any redemption date, the greater of:

(1) 1.0% of the principal amount of such 2025 note; and

(2) the excess, if any, of (a) the present value at such redemption date of (i) the redemption price of such note at February 15, 2022 (such redemption price being set forth in the tables appearing above under the fourth paragraph under the caption "Optional Redemption"), plus (ii) all required interest payments due on such note through February 15, 2022 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the 2025 Notes Bund Rate as of such redemption date (or, if greater than such 2025 Notes Bund Rate, zero) plus 50 basis points; over (b) the principal amount of such 2025 note.

"2027 Notes *Applicable Premium*" means, as determined by the Company, with respect to any 2027 note on any redemption date, the greater of:

(1) 1.0% of the principal amount of such 2027 note; and

(2) the excess, if any, of (a) the present value at such redemption date of (i) the redemption price of such note at November 15, 2022 (such redemption price being set forth in the tables appearing above under the fourth paragraph under the caption "Optional Redemption"), plus (ii) all required interest payments due on such note through November 15, 2022 (excluding accrued but unpaid interest to the redemption date), computed using a discount rate equal to the 2027 Notes Bund Rate as of such redemption date (or, if greater than such 2027 Notes Bund Rate, zero) plus 50 basis points; over (b) the principal amount of such 2027 note.

"*Asset Sale*" means the sale, lease (as lessor), conveyance or other disposition of any assets or rights; *provided* that the sale, lease, conveyance or other disposition of all or substantially all of the assets of the Company and the Restricted Subsidiaries taken as a whole or the Company and its Restricted Subsidiaries taken as a whole will be governed by the provisions of the Indenture described above under "Repurchase at the Option of Holders—Change of Control" and/or the provisions described above under "Certain Covenants—Merger, Consolidation or Sale of Assets" and not by the provisions of "Repurchase at the Option of Holders—Asset Sales."

Notwithstanding the preceding, the following items will not be deemed to be Asset Sales:

(1) any single transaction or series of related transactions that involves assets or rights having a fair market value of less than $100.0 million;

(2) a transfer of assets or rights between or among the Company and the Restricted Subsidiaries or between or among the Restricted Subsidiaries;

(3) the sale, lease, conveyance or other disposition of equipment, inventory (including, but not limited to, raw materials, work-in-progress and finished goods) or other assets or rights in the ordinary course of business, or if excess, obsolete, damaged, worn-out, scrap or surplus or no longer used or useful in the conduct of business as then being conducted;

(4) a Restricted Payment that is permitted by "Certain Covenants—Restricted Payments" or a Permitted Investment;

(5) the sale, lease, conveyance or other disposition of property or assets acquired within the twelve month period prior to such sale, lease, conveyance or disposition in preparation for a sale and leaseback transaction relating to such property or assets;

(6) an issuance of Equity Interests by a Restricted Subsidiary to the Company or another Restricted Subsidiary;

(7) the sale or other disposition of cash or Cash Equivalents;

(8) the license or sub-license of, or other arrangements involving the grant of rights in or to, patents, trademarks, copyrights, know how, process technology or other intellectual property to third Persons by the Company or a Restricted Subsidiary;

(9) the granting or assumption of a Lien permitted by "Certain Covenants—Liens," including a Permitted Lien;

(10) any sale or disposition of Securitization Assets to a Securitization Subsidiary in connection with a Qualified Securitization Financing;

(11) the sale or disposition of accounts receivable in connection with the collection or compromise thereof in the ordinary course of business;

(12) Project Dispositions;

(13) the sale or disposition of real property and related assets in the ordinary course of business in connection with relocation activities for directors, officers, members of management, employees or consultants of the Company or any Restricted Subsidiary;

(14) the unwinding of Hedging Obligations;

(15) the disposition of Investments in joint ventures to the extent required by, or made pursuant to, buy/sell arrangements between joint venture parties set forth in joint venture agreements or similar binding agreements; *provided* that such disposition is at fair market value (as determined in good faith by the Company's Board of Directors) and any cash or Cash Equivalents received in such disposition is applied in accordance with the covenant described under "Repurchase at the Option of Holders—Asset Sales"; and

(16) any disposition of Capital Stock of a Restricted Subsidiary pursuant to an agreement or other obligation with or to a Person (other than the Company or a Restricted Subsidiary) from whom such Restricted Subsidiary was acquired or from whom such Restricted Subsidiary acquired its business and assets (having been newly formed in connection with such acquisition), made as part of such acquisition and in each case comprising all or a portion of the consideration in respect of such sale or acquisition.

"*Asset Sale Offer*" has the meaning assigned to that term under "—Repurchase at the Option of Holders—Asset Sales".

"*Attributable Debt*" in respect of a sale and leaseback transaction means, at the time of determination, the present value of the obligation of the lessee for net rental payments during the remaining term of the lease included in such sale and leaseback transaction, including any period for which such lease has been extended or may, at the option of the lessor, be extended. Such present value shall be calculated using a discount rate equal to the rate of interest implicit in such transaction, determined in accordance with IFRS.

"*Board of Directors*" means:

(1) with respect to a corporation, the board of directors of the corporation or any committee thereof duly authorized to act on behalf of such board of directors;

(2) with respect to a partnership, the board of directors of the general partner of the partnership;

(3) with respect to a limited liability company, the managing member or members or any controlling committee of managing members thereof; and

(4) with respect to any other Person, the board or committee of such Person serving a similar function.

"*2025 Notes Bund Rate*" means, as of any redemption date, the rate per annum equal to the equivalent yield to maturity as of such redemption date of the 2025 Notes Comparable German Bund Issue, assuming a price for the 2025 Notes Comparable German Bund Issue (expressed as a percentage of its principal amount) equal to the 2025 Notes Comparable German Bund Price for such relevant date, where:

(1) "*2025 Notes Comparable German Bund Issue*" means the German Bundesanleihe security selected by any 2025 Notes Reference German Bund Dealer as having a fixed maturity most nearly equal to the period from such redemption date to February 15, 2022, and that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of Euro denominated corporate debt securities in a principal amount approximately equal to the then outstanding principal amount of the 2025 notes and of a maturity most nearly equal to February 15, 2022; *provided*, *however*, that, if the period from such redemption date to February 15, 2022 is less than one year, a fixed maturity of one year shall be used;

(2) "*2025 Notes Comparable German Bund Price*" means, with respect to any relevant date, the average of all 2025 Notes Reference German Bund Dealer Quotations for such date (which, in any event, must include at least two such quotations), after excluding the highest and lowest such 2025 Notes Reference German Bund Dealer Quotations, or if the Company obtains fewer than four such 2025 Notes Reference German Bund Dealer Quotations, the average of all such quotations;

(3) "*2025 Notes Reference German Bund Dealer*" means any dealer of German Bundesanleihe securities appointed by the Company in good faith; and

(4) "*2025 Notes Reference German Bund Dealer Quotations*" means, with respect to each 2025 Notes Reference German Bund Dealer and any relevant date, the average as determined by the Company of the bid and offered prices for the 2025 Notes Comparable German Bund Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Company by such 2025 Notes Reference German Bund Dealer at 3:30 p.m. Frankfurt am Main, Germany time on the third Business Day preceding the relevant date.

"2027 Notes *Bund Rate*" means, as of any redemption date, the rate per annum equal to the equivalent yield to maturity as of such redemption date of the 2027 Notes Comparable German Bund Issue, assuming a price for the 2027 Notes Comparable German Bund Issue (expressed as a percentage of its principal amount) equal to the 2027 Notes Comparable German Bund Price for such relevant date, where:

(1) "2027 Notes *Comparable German Bund Issue*" means the German Bundesanleihe security selected by any 2027 Notes Reference German Bund Dealer as having a fixed maturity most nearly equal to the period from such redemption date to November 15, 2022, and that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of Euro denominated corporate debt securities in a principal amount approximately equal to the then outstanding principal amount of the 2027 notes and of a maturity most nearly equal to November 15, 2022; *provided*, *however*, that, if the period from such redemption date to November 15, 2022 is less than one year, a fixed maturity of one year shall be used;

(2) "2027 Notes *Comparable German Bund Price*" means, with respect to any relevant date, the average of all 2027 Notes Reference German Bund Dealer Quotations for such date (which, in any event, must include at least two such quotations), after excluding the highest and lowest such 2027 Notes Reference German Bund Dealer Quotations, or if the Company obtains fewer than four such 2027 Notes Reference German Bund Dealer Quotations, the average of all such quotations;

(3) "2027 Notes *Reference German Bund Dealer*" means any dealer of German Bundesanleihe securities appointed by the Company in good faith; and

(4) "2027 Notes *Reference German Bund Dealer Quotations*" means, with respect to each 2027 Notes Reference German Bund Dealer and any relevant date, the average as determined by the Company of the bid and offered prices for the 2027 Notes Comparable German Bund Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Company by such 2027 Notes Reference

German Bund Dealer at 3:30 p.m. Frankfurt am Main, Germany time on the third Business Day preceding the relevant date.

"*Business Day*" means any day other than a Saturday or Sunday, (i) which is not a day on which banking institutions in the City of New York or London are authorized or required by law, regulation or executive order to close and, (ii) in the event that any payment by the Company of the principal of, and premium, if any, and interest on, the notes is to be made in Euro, on which the Trans-European Automated Real-Time Gross Settlement Express Transfer system (the TARGET2 system), or any successor thereto, is open.

"*Capital Lease Obligation*" of any Person means the obligations of such Person to pay rent or other amounts under any lease of (or other arrangement conveying the right to use) real or personal property, or a combination thereof, which obligations are required to be classified and accounted for as capital leases on a balance sheet of such Person in accordance with IFRS (or GAAP to the extent required by applicable law) and the amount of such obligations shall be the capitalized amount thereof required to be set forth on a balance sheet of such Person in accordance with IFRS (or GAAP to the extent required by applicable law).

"*Capital Stock*" means:

(1) in the case of a corporation, any and all shares, including common stock and preferred stock;

(2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock;

(3) in the case of a partnership or limited liability company, partnership or membership interests (whether general or limited); and

(4) any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing Person, but excluding from all of the foregoing any debt securities convertible into Capital Stock, whether or not such debt securities include any right of participation with Capital Stock.

"*Cash Equivalents*" means:

(1) direct obligations (or certificates representing an interest in such obligations) issued by, or unconditionally guaranteed by, the government of a member state of the European Union, the United Kingdom, the United States of America, Switzerland or Canada (including, in each case, any agency or instrumentality thereof), as the case may be, the payment of which is backed by the full faith and credit of the relevant member state of the European Union, the United Kingdom or the United States of America, Switzerland or Canada, as the case may be, and which are not callable or redeemable at the option of the Company or any of its Restricted Subsidiaries;

(2) overnight bank deposits, time deposit accounts, certificates of deposit, banker's acceptances and money market deposits with maturities (and similar instruments) of 12 months or less from the date of acquisition issued by a bank or trust company which is organized under, or authorized to operate as a bank or trust company under, the laws of a member state of the European Union, the United Kingdom or of the United States of America or any state thereof, Switzerland or Canada; *provided* that such bank or trust company has capital, surplus and undivided profits aggregating in excess of $400.0 million (or the foreign currency equivalent thereof as of the date of such investment) and whose long-term debt is rated "A-1" or higher by Moody's or A+ or higher by S&P or the equivalent rating category of another internationally recognized rating agency;

(3) repurchase obligations with a term of not more than 30 days for underlying securities of the types described in clauses (1) and (2) above entered into with any financial institution meeting the qualifications specified in clause (2) above;

(4) commercial paper having one of the two highest ratings obtainable from Moody's or S&P and, in each case, maturing within one year after the date of acquisition; and

(5) money market funds at least 95% of the assets of which constitute Cash Equivalents of the kinds described in clauses (1) through (4) of this definition.

"*Change of Control*" means the occurrence of any of the following:

(1) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all of the property and assets of the Company and the Restricted Subsidiaries, taken as a

whole, to any Person or group of related Persons for purposes of Section 13(d) of the Exchange Act (a "Group"), together with any Affiliates thereof (whether or not otherwise in compliance with the provisions of the Indenture), other than to the Company or one or more Guarantors;

(2) the adoption of any plan or proposal for the liquidation or dissolution of the Company (whether or not otherwise in compliance with the provisions of the Indenture); or

(3) (a) any Person or Group (other than a Permitted Holder Group) shall be or become the owner, directly or indirectly, beneficially or of record, of shares representing more than 35% of the aggregate ordinary voting power represented by the Company's issued and outstanding Capital Stock or (b) the Permitted Holder Group becomes the owner, directly or indirectly, beneficially or of record, of shares representing more than 50% of the aggregate ordinary voting power represented by our issued and outstanding Capital Stock.

"*Change of Control Offer*" has the meaning set forth under "—Change of Control."

"*Clearstream*" means Clearstream Banking, *société anonyme*.

"*Collateral*" means all the assets and properties subject to the Liens created by the Collateral Documents.

"*Collateral Documents*" means, collectively, any security agreements, hypotecs, intellectual property security agreements, mortgages, collateral assignments, security agreement supplements, pledge agreements, bond or any similar agreements, guarantees and each of the other agreements, instruments or documents, in each case, that creates or purports to create a Lien in favor of the Notes Collateral Agent and/or the Trustee for its benefit and the benefit of the Trustee and the Holders of the notes in all or any portion of the Collateral, as amended, extended, renewed, restated, refunded, replaced, refinanced, supplemented, modified or otherwise changed from time to time.

"*Company*" means Grifols, S.A.

"*Consolidated Cash Flow*" means (a) Consolidated Net Income of the Company and its Subsidiaries, *plus*, to the extent deducted in determining Consolidated Net Income of the Company and its Subsidiaries the sum, without duplication, of amounts for (i) all financial results including interest expense, amortization or write off of debt discount, other deferred financing costs, other fees and charges associated with Indebtedness, (ii) any losses on ordinary course hedging obligations or other derivative instruments entered into for the purpose of hedging interest rate risk, (iii) any foreign currency translation, transaction or exchange losses (including currency remeasurements of Indebtedness and any losses resulting from ordinary course hedging obligations or other derivative instruments for currency exchange risk), (iv) any loss of any equity accounted investee in which the Company or any of its Subsidiaries has a joint or minority interest, (v) expenses for taxes based on income or gain, (vi) depreciation, (vii) amortization, write-offs, write-downs, and other non-cash charges, losses and expenses, (viii) impairment of intangibles, including, without limitation, goodwill, (ix) non-recurring items (as determined in accordance with IFRS) realized other than in the ordinary course of business, without duplication, resulting in a loss, (x) fees and expenses incurred in connection with the Transactions or, to the extent permitted hereunder, any Investment, Asset Sale, or incurrence of Indebtedness, in each case, whether or not consummated, (xi) extraordinary, unusual, or non-recurring charges and expenses including transition, restructuring and "carveout" expenses, (xii) legal, accounting, consulting, and other costs and expenses relating to the Company's potential or actual issuance of Equity Interests, including without limitation an initial public offering of common stock and (xiii) the amount of cost savings, adjustments, operating expense reductions, operating improvements and synergies, in each case on a "run rate" basis and in connection with acquisitions, investments, restructurings, business optimization projects and other operational changes and initiatives ("*Run Rate Amounts*") that are identifiable and projected in good faith to result from actions that have been or are expected to be taken within twelve (12) months of such date of determination; *provided,* that (x) the Trustee shall have received a reasonably detailed statement or schedule of such Run Rate Amounts, (y) such amounts are reasonably identifiable, reasonably attributable to the actions specified and reasonably anticipated to result from such actions and (z) the benefits resulting therefrom are anticipated by the Company to be realized within twelve (12) months of the end of such date on which Consolidated Cash Flow is tested; *provided further,* that for any such period, the amount added back in calculating Consolidated Cash Flow pursuant to this clause (xiii) shall not, in the aggregate, exceed 10% of Consolidated Cash Flow for such period (determined prior to giving effect to such add-backs), *minus* (b) to the extent included in consolidated income from operations, (i) interest income, (ii) non-recurring gains (as determined in accordance with IFRS) realized other than in the ordinary course of business, (iii) income or gains on ordinary course hedging obligations or other derivative instruments entered into

for the purpose of hedging interest rate risk, (iv) foreign currency translation, transaction or exchange gains (including currency remeasurements of Indebtedness and any gains resulting from ordinary course hedging obligations or other derivative instruments for currency exchange risk), (v) any income of any equity-accounted investee in which the Company or any of its Subsidiaries has a joint or minority interest, except to the extent of the amount of dividends or other distributions actually paid to the Company or any Subsidiary by such Person an included in the Consolidated Net Income of the Company or such Subsidiary during such period, all calculated without duplication for the Company and its Subsidiaries on a consolidated basis.

For purposes of the maximum Leverage Ratio, Secured Leverage Ratio and Fixed Charge Coverage Ratio, Consolidated Cash Flow shall be calculated giving Pro Forma Effect to material acquisitions and disposals, such that Consolidated Cash Flow would be adjusted to (a) include net income before net interest expense, taxes, depreciation and amortization attributable to the acquired entity (or assets) prior to its becoming a Subsidiary of the Company during the relevant period, and (b) exclude net income before net interest expense, taxes, depreciation and amortization attributable to the disposed of entity (or assets) prior to its being disposed of by the Group during the relevant period.

"*Consolidated Net Income*" means, for any period (subject to the proviso to the definition of Limited Condition Acquisition), the total net income (or loss) attributable to the Company and its Subsidiaries on a consolidated basis for such period taken as a single accounting period determined in conformity with IFRS (before any adjustment for profit and loss attributable to minority interests and capitalized interest) *minus* any after tax non-cash gains (or losses) attributable to Asset Sales or returned surplus assets of any Pension Plan.

"*Consolidated Net Total Debt*" means, as of any date of determination, the aggregate stated balance sheet amount of all funded Indebtedness (including Guarantees) of the Company and the Restricted Subsidiaries determined on a consolidated basis in accordance with IFRS (exclusive of obligations in respect of derivative transactions that have not been terminated) *minus* the amount of unrestricted cash and Cash Equivalents of the Company and the Restricted Subsidiaries determined on a consolidated basis in accordance with IFRS.

"*Consolidated Senior Secured Debt*" means, as of any date of determination, Consolidated Net Total Debt minus unsecured Indebtedness of the Company and the Restricted Subsidiaries on a consolidated basis

"*Contingent Liability*" means any agreement, undertaking or arrangement by which any Person guarantees, endorses or otherwise becomes or is contingently liable upon the Indebtedness of any other Person (other than by endorsements of instruments in the course of collection). The amount of any Person's obligation under any Contingent Liability shall (subject to any limitation with respect thereto) be deemed to be the outstanding principal amount of the Indebtedness guaranteed thereby.

"*Controlled Foreign Corporation*" means any Subsidiary of a Guarantor organized in the United States or any state, district or territory thereof that is a "controlled foreign corporation" within the meaning of Section 957(a) of the Internal Revenue Code.

"*Credit Agreement*" means that certain credit and guaranty agreement of the Company and certain of its Subsidiaries with Bank of America, N.A., as administrative agent (the "*Administrative Agent*"), and the other parties thereto, dated on or about the Issue Date, including any related notes, Guarantees, instruments and agreements executed in connection therewith, and, in each case, as amended, modified, renewed, refunded, replaced (whether after or upon termination or otherwise), restructured, restated or refinanced (including any agreement to extend the maturity thereof and adding additional borrowers or guarantors and including by means of sales of debt securities) in whole or in part under such agreement or agreements or any successor agreement or agreements from time to time under the same or any other agent, lender or group of lenders and including increasing the amount of available borrowings thereunder.

"*Credit Agreement Collateral Documents*" means the Security Documents (as defined in the Credit Agreement or any similar term in any refinancing thereof) and each other agreement entered into in favor of the Senior Credit Facilities Collateral Agent for the purpose of securing any Senior Credit Facilities Obligations.

"*Credit Agreement Secured Parties*" means the Senior Credit Facilities Collateral Agent and the holders of the Senior Credit Facilities Obligations.

"*Credit Facilities*" means one or more debt facilities or agreements (including, without limitation, the Credit Agreement) or commercial paper facilities or Indentures, in each case with banks or other

institutional lenders providing for, or acting as initial purchasers of, revolving credit loans, term loans, notes, debentures, securities, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, refunded, replaced (whether after or upon termination or otherwise), restructured, restated or refinanced (including any agreement to extend the maturity thereof and adding additional borrowers or guarantors and including by means of sales of debt securities to institutional investors) in whole or in part from time to time and including increasing the amount of available borrowings thereunder; *provided* that such increase is permitted under "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock."

"*Default*" means any event that is, or with the passage of time or the giving of notice or both would be, an Event of Default.

"*Designated Non-Cash Consideration*" means the fair market value of non-cash consideration received by the Company or any Restricted Subsidiary in connection with an Asset Sale that is so designated as Designated Non-Cash Consideration pursuant to an officer's certificate, setting forth the basis of such valuation, less the amount of cash or Cash Equivalents received in connection with a subsequent sale, redemption or payment of, on or with respect to, such Designated Non-Cash Consideration.

"*Disqualified Stock*" means any Capital Stock that, by its terms (or by the terms of any security into which it is convertible, or for which it is exchangeable, in each case at the option of the holder of the Capital Stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option of the holder of the Capital Stock, in whole or in part, on or prior to the date that is 91 days after the date on which the notes mature. Notwithstanding the preceding sentence, any Capital Stock that would constitute Disqualified Stock solely because the holders of the Capital Stock have the right to require the Company or any of its Restricted Subsidiaries to repurchase such Capital Stock upon the occurrence of a Change of Control or an Asset Sale will not constitute Disqualified Stock if the terms of such Capital Stock provide that the Company or such Restricted Subsidiary may not repurchase or redeem any such Capital Stock pursuant to such provisions unless such repurchase or redemption complies with "Certain Covenants—Restricted Payments." The amount of Disqualified Stock deemed to be outstanding at any time for purposes of the Indenture will be the maximum amount that the Company and the Restricted Subsidiaries may become obligated to pay upon the maturity of, or pursuant to any mandatory redemption provisions of, such Disqualified Stock, exclusive of accrued dividends.

"EIB" means the European Investment Bank.

"*EIB Agreement*" means any credit agreement or similar agreement relating to the EIB Facility.

"*EIB Documents*" has the meaning assigned to it in the Parri Passu Intercreditor Agreement.

"*EIB Facility*" means Indebtedness of the Company and its Restricted Subsidiaries owed to the EIB.

"EIB Obligations" means Obligations of each borrower and guarantor under the EIB Documents.

"EIB Secured Parties" means EIB and its successors and assigns.

"*Equity Interests*" means Capital Stock and all warrants, options, restricted stock units, performance units or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock)..

"*ERISA*" means the Employee Retirement Income Security Act of 1974, as amended from time to time, the regulations promulgated thereunder and any successor thereto.

"*Euroclear*" means Euroclear Bank S.A./N.V.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder.

"*Excluded Assets"* means (i) any lease, license, contract or agreement to which any Grantor is a party, and any of its rights or interest thereunder, if and to the extent that a security interest is prohibited by or in violation of (x) any law, rule or regulation applicable to such Grantor, or (y) a term, provision or condition of any such lease, license, contract or agreement (unless such law, rule, regulation, term, provision or condition would be rendered ineffective with respect to the creation of the security interest hereunder pursuant to Sections 9-406, 9-407, 9-408 or 9-409 of the UCC (or any successor provision or provisions) of any relevant jurisdiction or any other applicable law (including the Bankruptcy Code) or principles of

equity); provided however that the Collateral shall be included (and such security interest shall attach) immediately at such time as the contractual or legal prohibition shall no longer be applicable and to the extent severable, shall attach immediately to any portion of such lease, license, contract or agreement not subject to the prohibitions specified in (x) or (y) above; provided further that the exclusions referred to in clause (i) shall not include any proceeds of any such lease, license, contract or agreement; (ii) any of the outstanding capital stock of an Immaterial Subsidiary, Securitization Subsidiary or Unrestricted Subsidiary; (iii) any "intent-to-use" application for registration of a Trademark filed pursuant to Section 1(b) of the Lanham Act, 15 U.S.C. § 1051, prior to the filing of a "Statement of Use" pursuant to Section 1(d) of the Lanham Act or an "Amendment to Allege Use" pursuant to Section 1(c) of the Lanham Act with respect thereto, solely to the extent, if any, that, and solely during the period, if any, in which, the grant of a security interest therein would impair the validity or enforceability of any registration that issues from such intent-to-use application under applicable federal law; (iv) any Deposit Account or Securities Account of a Grantor to the extent exclusively used for payroll, taxes, employee benefits or other similar fiduciary purposes; (v) margin stock; (vi) Equity Interests in Grifols Diagnostic Solutions Inc.; (vii) leasehold interests in real property; and (viii) any specifically identified asset with respect to which the collateral agent under the Credit Agreement has determined in consultation with Grifols Worldwide Operations Limited that the burden or cost of providing a Lien in such asset is excessive in view of the benefit to be obtained by the Collateral Agent and lenders.

"*Excluded Contribution*" means net cash proceeds or property or assets received by the Company from

(1) capital contributions to the equity of the Company (other than through the issuance of Disqualified Stock), and

(2) the sale (other than to a Subsidiary of the Company or to any management equity plan or stock option plan or any other management or employee benefit plan or agreement of the Company) of Capital Stock (other than Disqualified Stock) of the Company,

in each case designated as Excluded Contributions pursuant to an officer's certificate of the Company delivered to the Trustee.

"*Existing Indebtedness*" means Indebtedness of the Company and its Restricted Subsidiaries (without duplication) in existence on the Issue Date (other than Indebtedness under the Credit Agreement or in respect of the notes), until such amounts are repaid.

"*Existing Notes*" means the Company's €1.0 billion aggregate principal amount of 3.200% senior notes due 2025.

"*Fitch*" means Fitch Ratings Inc. and any successor to its rating agency business.

"*Fixed Charge Coverage Ratio*" means, with respect to any specified Person for any period, the ratio of the Consolidated Cash Flow of such Person for such period to the Fixed Charges of such Person for such period. In the event that the specified Person or any of its Restricted Subsidiaries incurs, assumes, Guarantees, repays, repurchases or redeems any Indebtedness (other than ordinary working capital borrowings) or issues, repurchases or redeems preferred stock subsequent to the commencement of the period for which the Fixed Charge Coverage Ratio is being calculated and on or prior to the date on which the event for which the calculation of the Fixed Charge Coverage Ratio is made (the "*Calculation Date*"), then the Fixed Charge Coverage Ratio will be calculated giving Pro Forma effect to such incurrence, assumption, Guarantee, repayment, repurchase or redemption of Indebtedness, or such issuance, repurchase or redemption of preferred stock, and the use of the proceeds therefrom (including use on the Calculation Date) as if the same had occurred at the beginning of the applicable four-quarter reference period; *provided*, *however*, that the Fixed Charges of such Person attributable to interest on any Indebtedness under a revolving credit facility computed on a Pro Forma basis will be computed based on the average daily balance of such Indebtedness during the four-quarter reference period and using the interest rate in effect at the end of such period (taking into account any interest rate option, swap, cap or similar agreement applicable to such Indebtedness).

"*Fixed Charges*" means, with respect to any specified Person for any period, the sum, without duplication, of:

(1) the consolidated interest expense of such Person and its Restricted Subsidiaries for such period, whether paid or accrued (including, without limitation, amortization of original issue discount, non-cash interest payments, the interest component of all payments associated with Capital Lease Obligations, commissions, discounts and other fees and charges incurred in respect of letter of credit or bankers'

acceptance financings, and net of the effect of all payments made or received pursuant to Hedging Obligations in respect of interest rates); plus

(2) the consolidated interest expense of such Person and its Restricted Subsidiaries that was capitalized during such period; plus

(3) any interest actually paid on Indebtedness of another Person that is Guaranteed by such Person or one of its Restricted Subsidiaries or secured by a Lien on assets of such Person or one of its Restricted Subsidiaries, whether or not such Guarantee or Lien is called upon; plus

(4) the product of (a) all dividends, whether paid or accrued and whether or not in cash, on any series of preferred stock of such Person or any of its Restricted Subsidiaries, other than (i) dividends on Equity Interests payable solely in Equity Interests of such Person (other than Disqualified Stock) or to such Person or one of its Restricted Subsidiaries and (ii) dividends on any series of preferred stock of such Person or any of its Restricted Subsidiaries (to the extent held by Persons other than the Company or a Subsidiary of the Company) where such dividends are also payable pro rata on common stock of such Person or any of its Restricted Subsidiaries, times (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined federal, state and local statutory tax rate of such Person, expressed as a decimal, in each case, on a consolidated basis and in accordance with IFRS.

"*GAAP*" means generally accepted accounting principles in the United States or Spain, as applicable, which are in effect from time to time.

"*GDS*" means Grifols Diagnostic Solutions Inc., a Delaware corporation.

"*GDS Contributed Equity*" means the following Equity Interests of GDS owned by the Company: 40.0% of the issued and outstanding GDS Voting Equity Interests and 50.0% of the issued and outstanding GDS Non-Voting Equity Interests.

"*GDS Equity Interest Contribution*" means the contribution by the Company to Shanghai RAAS of the GDS Contributed Equity.

"*GDS Non-Voting Equity Interests*" means the Series B Common Stock in GDS, par value $0.0001 per share.

"*GDS Retained Equity*" means the following Equity Interests of GDS owned by the Parent on the Closing Date: 60.0% of the issued and outstanding GDS Voting Equity Interests and 50.0% of the issued and outstanding GDS Non-Voting Equity Interests that are not to be contributed to Shanghai RAAS in connection with the Shanghai RAAS Transactions.

"*GDS Voting Equity Interests*" means the Series A Common Stock in GDS, par value $0.0001 per share.

"*Government Securities*" means securities that are:

(1) direct obligations (or certificates representing an interest in such obligations) of the government of a member state of the European Union, the United Kingdom, the United States of America or Switzerland for the timely payment of which its full faith and credit is pledged; or

(2) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the government of such member state of the European Union, the United Kingdom, the United States of America or Switzerland and the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by the government of a member state of the European Union, the United Kingdom, the United States of America or Switzerland, which, in either case, are not callable or redeemable at the option of the issuers thereof, and shall also include a depository receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act), as custodian with respect to any such Government Securities or a specific payment of principal of or interest on any such Government Securities held by such custodian for the account of the holder of such depository receipt; *provided, however*, that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the Government Securities or the specific payment of principal of or interest on the Government Securities evidenced by such depository receipt.

"*GSSNA*" means Grifols Shared Services North America, Inc., a Delaware corporation, an indirect wholly owned subsidiary of the Company.

"*Guarantee*" means a guarantee other than by endorsement of negotiable instruments for collection in the ordinary course of business, direct or indirect, in any manner including, without limitation, by way of a pledge of assets or through letters of credit or reimbursement agreements in respect thereof, of all or any part of any Indebtedness.

"*Grantor*" means each of Grifols, S.A. Grifols Worldwide Operations Limited, Grifols Worldwide Operations USA, Inc. Biomat USA, Inc., Grifols Biologicals LLC, Grifols Shared Services North America, Inc,. Grifols Therapeutics LLC, Grifols USA, LLC.

"*Guarantor*" means each Person that Guarantees the notes in accordance with the terms of the Indenture governing the notes.

"*Hedging Obligations*" means, with respect to any specified Person, the obligations of such Person under:

(1) interest rate swap agreements (whether from fixed to floating or floating to fixed), interest rate cap agreements and interest rate collar agreements;

(2) other agreements or arrangements designed to manage interest rates or interest rate risk; and

(3) foreign exchange contracts, currency swap agreements or other agreements or arrangements designed to protect such Person against fluctuations in currency exchange rates or commodity prices.

"*Holder*" means a Person in whose name a note is registered.

"*IFRS*" means the International Financial Reporting Standards, as promulgated by the International Accounting Standards Board (or any successor board or agency), as in effect on the Issue Date. At any time on or after the Issue Date, the Issuer may elect to establish that IFRS shall mean IFRS as in effect on or prior to the date of such election, *provided* that any such election, once made, shall be irrevocable.

If there occurs a change in IFRS and such change would cause a change in the method of calculation of any standards, terms or measures (including all computations of amounts and ratios) used in the Indenture (an "*Accounting Change*") then the Issuer may elect that such standards, terms or measures shall be calculated as if such Accounting Change had not occurred.

"*Immaterial Subsidiary*" means, as of any date, any Restricted Subsidiary (other than, in any event, GDS) that is not a Material Subsidiary.

"*Indebtedness*" means, with respect to any specified Person, any indebtedness (excluding accrued expenses or trade payables), of such Person, whether or not contingent:

(1) in respect of borrowed money;

(2) evidenced by bonds, notes, debentures or similar instruments or letters of credit (or reimbursement agreements in respect thereof);

(3) in respect of banker's acceptances;

(4) representing Capital Lease Obligations;

(5) representing the balance deferred and unpaid of the purchase price of any property due more than six months after such property is acquired, except any such balance that constitutes an accrued expense or trade payable; or

(6) representing the net amount of any Hedging Obligations,

if and to the extent any of the preceding items (other than letters of credit and Hedging Obligations) would appear as a liability upon a balance sheet of the specified Person prepared in accordance with IFRS. In addition, the term "Indebtedness" includes all Indebtedness of others secured by a Lien on any asset of the specified Person (whether or not such Indebtedness is assumed by the specified Person) and, to the extent not otherwise included, the Guarantee by the specified Person of any Indebtedness of any other Person.

The amount of any Indebtedness outstanding as of any date will be (without duplication):

(1) the accreted value of the Indebtedness, in the case of any Indebtedness issued with original issue discount;

(2) the principal amount of the Indebtedness, together with any interest on the Indebtedness that is more than 30 days past due, in the case of any other Indebtedness; and

(3) in respect of Indebtedness of another Person secured by a Lien on the assets of the specified Person, the lesser of:

(a) the fair market value of such assets that are subject to such Lien at the date of determination; and

(b) the amount of the Indebtedness of the other Person secured by such assets.

(4) the amount of Indebtedness of any Person at any time in the case of a revolving credit or similar facility shall be the total amount of funds borrowed and then outstanding.

"*Intercreditor Secured Parties*" means the Credit Agreement Secured Parties, the Noteholder Secured Parties, the EIB Secured Parties and the holders of Other Pari Passu Lien Obligations.

"*Investment Grade Rating*" means a rating equal to or higher than Baa3 (or the equivalent) by Moody's and BBB− (or the equivalent) by S&P or BBB− (or the equivalent with respect to Fitch), or an equivalent rating by any other Rating Agency.

"*Investment Grade Status*" means an Investment Grade Rating by two or more of Moody's, S&P or Fitch.

"*Investments*" means, with respect to any Person, all direct or indirect investments by such Person in other Persons (including Affiliates) in the forms of loans (including Guarantees or other obligations), advances or capital contributions (excluding commission, travel and similar advances to officers and employees made in the ordinary course of business), purchases or other acquisitions for consideration of Indebtedness, Equity Interests or other securities, together with all items that are or would be classified as investments on a balance sheet prepared in accordance with IFRS (or GAAP to the extent required by applicable law) (it being understood that capital expenditures shall not be deemed to be "Investments"). If the Company or any of its Restricted Subsidiaries sells or otherwise disposes of any Equity Interests of any direct or indirect Subsidiary of the Company such that, after giving effect to any such sale or disposition, such Person is no longer a Subsidiary of the Company, the Company will be deemed to have made an Investment on the date of any such sale or disposition equal to the fair market value of the Equity Interests of such Subsidiary not sold or disposed of in an amount determined as provided in the final paragraph of "Certain Covenants—Restricted Payments." The acquisition by the Company or any of its Restricted Subsidiaries of a Person that holds an Investment in a third Person will be deemed to be an Investment by the Company or such Restricted Subsidiary in such third Person in an amount equal to the fair market value of the Investment held by the acquired Person in such third Person in an amount determined as provided in the final paragraph of "Certain Covenants—Restricted Payments." Except as otherwise provided in the Indenture, the amount of an Investment will be determined at the time the Investment was made and without giving effect to subsequent changes in value.

"*Issue Date*" means November 15, 2019.

"*Junior Lien Priority*" means Indebtedness that is secured by a Lien on the Collateral that is junior in priority to the Liens on the Collateral securing the Obligations under the notes and is subject to an intercreditor agreement (it being understood that junior Liens are not required to rank equally and ratably with other junior Liens, and that Indebtedness secured by junior Liens may be secured by Liens that are senior in priority to, or rank equally and ratably with, or junior in priority to, other Liens constituting junior Liens).

"*Leverage Ratio*" means the ratio as of the last day of any fiscal quarter of (a) Consolidated Net Total Debt as of such day to (b) Consolidated Cash Flow of the Company and the Restricted Subsidiaries on a consolidated basis for the four fiscal quarter period ending on such date.

"*Lien*" means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction.

"*Limited Condition Acquisition*" means any acquisition, including by way of merger, amalgamation or consolidation, by the Company or one or more of its Restricted Subsidiaries whose consummation is not conditioned upon the availability of, or on obtaining, third party financing; *provided* that the Consolidated Net Income (and any other financial term derived therefrom), other than for purposes of calculating any ratios in connection with the Limited Condition Acquisition, shall not include any Consolidated Net Income of or attributable to the target company or assets associated with any such Limited Condition Acquisition unless and until the closing of such Limited Condition Acquisition shall have actually occurred.

"*Material Subsidiary"* means, as of any date, any Restricted Subsidiary (other than, in any Event, GDS) that has earnings before interest, tax, depreciation and amortization (calculated on the same basis as the defined term "Consolidated Cash Flow") representing 10.0% or more of the Consolidated Cash Flow

"*Moody's*" means Moody's Investors Service, Inc. and any successor to its rating agency business.

"*Net Proceeds*" means the aggregate cash proceeds received by the Company or any Restricted Subsidiary in respect of any Asset Sale (including, without limitation, any cash received upon the sale or other disposition of any non-cash consideration received in any Asset Sale), net of (i) the direct costs directly attributable to such Asset Sale, including, without limitation, legal, accounting and investment banking fees, and sales commissions, (ii) taxes paid or payable as a result of the Asset Sale, in each case, after taking into account any available tax credits or deductions and any tax sharing arrangements, (iii) amounts required to be applied to the repayment of Indebtedness secured by a Lien on the asset or assets that were the subject of such Asset Sale, (iv) any reserve for adjustment in respect of the sale price of such asset or assets established in accordance with IFRS (or GAAP to the extent required by applicable law) (unless such reserve is not used) against any liabilities associated with such Asset Sale and retained by the Company or any Restricted Subsidiary, as the case may be, after such Asset Sale, including, without limitation, pension and other post-employment benefit liabilities, liabilities related to environmental matters and liabilities under any indemnification obligations (whether fixed or contingent) associated with such Asset Sale.

"*Non-recourse Debt*" means Indebtedness:

(1) as to which neither the Company nor any of the Restricted Subsidiaries (a) provides credit support of any kind (including any undertaking, agreement or instrument that would constitute Indebtedness) or (b) is directly or indirectly liable as a guarantor or otherwise;

(2) no default with respect to which (including any rights that the holders thereof may have to take enforcement action against an Unrestricted Subsidiary) would permit upon notice, lapse of time or both any holder of any other Indebtedness of the Company or any of the Restricted Subsidiaries to declare a default on such other Indebtedness or cause the payment thereof to be accelerated or payable prior to its Stated Maturity; and

(3) as to which the lenders have been notified in writing that they will not have any recourse to the stock or assets of the Company or any of the Restricted Subsidiaries.

"*non U.S. Guarantor*" has the meaning set forth under "—Additional Amounts."

"*Notes Documents*" means the notes (including additional notes), the Guarantees, the Collateral Documents, the Pari Passu Intercreditor Agreement and the Indenture.

"*Notes Obligations*" means any Indebtedness or other Obligations under the Indenture.

"*Obligations*" means any principal, interest, penalties, fees, indemnifications, reimbursements, damages and other liabilities payable under the documentation governing any Indebtedness.

"*Other Pari Passu Lien Obligations*" means any Indebtedness or other Obligations (including Hedging Obligations) having Pari Passu Lien Priority relative to the notes with respect to the Collateral; *provided* that an authorized representative of the holders of such Indebtedness shall have executed a joinder to the Pari Passu Intercreditor Agreement.

"*Pari Passu Indebtedness*" means any Indebtedness that is *pari passu* in right of payment with the notes.

"*Pari Passu Intercreditor Agreement*" means the pari passu intercreditor agreement, dated as of the Issue Date, among the Company, the other grantors party thereto, the Notes Collateral Agent and the Senior Credit Facilities Collateral Agent.

"*Pari Passu Lien Priority*" means, relative to specified Indebtedness, having equal Lien priority on specified Collateral and the holders of which are subject to the Pari Passu Intercreditor Agreement.

"*Pension Plan*" means any Employee Benefit Plan, other than a Multiemployer Plan, which is subject to Section 412 or Section 430 of the Internal Revenue Code or Section 302 or Section 303 of ERISA.

"*Permitted Business*" means healthcare products and services (including the lines of business conducted by the Company, the Restricted Subsidiaries on the date of the Indenture) and any businesses ancillary, complementary or reasonably related thereto.

"*Permitted Holder Group*" means any group comprised solely of the Grifols family, holding directly or indirectly (the "*Existing Holders*"), or (ii) a person or group of related persons for purposes of Section 13(d) of the Exchange Act that includes the Existing Holders where the Existing Holders control (whether through exercise of voting rights, by contract or otherwise) the Company.

"*Permitted Investment*" means:

(1) any Investment in the Company or in a Restricted Subsidiary;

(2) any Investment in cash and Cash Equivalents and Investments that were Cash Equivalents when made;

(3) loans and advances to employees, officers, consultants and directors of the Company or a Restricted Subsidiary in the ordinary course of business for bona fide business purposes not in excess of $12.5 million at any one time outstanding;

(4) any Investment by the Company or a Restricted Subsidiary in a Person, if as a result of such Investment:

(a) such Person becomes a Restricted Subsidiary; or

(b) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated into, the Company or a Restricted Subsidiary;

(5) any Investment made as a result of the receipt of non-cash consideration from an Asset Sale that was made pursuant to and in compliance under "Repurchase at the Option of Holders—Asset Sales;"

(6) any acquisition of assets or Capital Stock solely in exchange for the issuance of the Company's Equity Interests (other than Disqualified Stock);

(7) any Investments received (A) in compromise of obligations of trade creditors or customers that were incurred in the ordinary course of business of the Company or the Restricted Subsidiaries, including pursuant to any plan of reorganization or similar arrangement upon the bankruptcy or insolvency or other reorganization of any trade creditor or customer or (B) in resolution of litigation, arbitration or other disputes or (C) as a result of foreclosure, perfection or enforcement of any Lien;

(8) Hedging Obligations;

(9) any Investments in one or more Permitted Joint Ventures or Unrestricted Subsidiaries, in each case so long as the Leverage Ratio, at the time of each such Investment, after giving pro forma effect to such Investment, would not be greater than 4.00 to 1.00 plus an additional amount not to exceed $500 million ("*Additional JV Investment Basket*"), with respect to which the amount of such Investment shall be reduced by any amounts received in cash in respect of the sale, transfer or other disposition of Investments in Permitted Joint Ventures made pursuant to this Additional JV Investment Basket; *provided however*, that if any Investment pursuant to this clause (9) is made in any Person that is not a Restricted Subsidiary at the time of such Investment and such Person becomes a Restricted Subsidiary after such time, such Investment shall, at the time such Person becomes a Restricted Subsidiary, be deemed to have been made pursuant to clause (1) above and shall cease to have been made pursuant to this clause (9) for so long as such Person continues to be a Restricted Subsidiary;

(10) payroll, travel, moving and similar advances to cover matters that are expected at the time of such advances ultimately to be treated as expenses for accounting purposes and that are made in the ordinary course of business;

(11) repurchases of the notes;

(12) notes, chattel paper and accounts receivable owing to the Company or the Restricted Subsidiaries created or acquired in the ordinary course of business (including concessionary trade terms the Company deems reasonable under the circumstances);

(13) Investments in existence or made pursuant to legally binding written commitments in existence on the Issue Date, and any extension, modification, replacement, refunding, refinancing or renewal thereof in whole or in part;

(14) performance or completion Guarantees in the ordinary course of business;

(15) Investments of a Restricted Subsidiary acquired after the Issue Date, or of an entity acquired by, merged into, amalgamated with, or consolidated with a Restricted Subsidiary in a transaction that is not

prohibited by the covenant described under the heading "Certain Covenants—Merger, Consolidation or Sale of Assets" after the Issue Date, to the extent that such Investments were not made in contemplation of such acquisition, merger, amalgamation or consolidation and were in existence on the date of such acquisition, merger, amalgamation or consolidation;

(16) Investments consisting of purchases and acquisitions of inventory, supplies, material or equipment, including pre payments therefor;

(17) deposits, prepayments and other credits to suppliers in the ordinary course of business consistent with past practice;

(18) Investments representing amounts held for employees of the Company and the Restricted Subsidiaries under deferred compensation plans; provided that the amount of such Investments (excluding income earned thereon) shall not exceed the amount otherwise payable to such employees the payment of which was deferred under such plan and any amounts matched by the Company or the Restricted Subsidiaries under such plan;

(19) Investments consisting of the licensing or contribution of intellectual property pursuant to development, marketing or manufacturing agreements or arrangements or similar agreements or arrangements with other Persons in the ordinary course of business;

(20) any Investment in exchange for, or out of the net proceeds of the substantially concurrent sale (other than to a Subsidiary of the Company or a Restricted Subsidiary or an employee stock ownership plan or similar trust) of Capital Stock (other than Disqualified Stock) of the Company; provided that the amount of any net cash proceeds that are utilized for such Investment will be excluded from clause 3(B) of the second part of the first paragraph set forth under "Certain Covenants—Restricted Payments;"

(21) Investments consisting of advances or loans to Persons building, developing or overseeing the construction of plasma collection centers expected to supply principally the Company or the Restricted Subsidiaries in the ordinary course of business and consistent with past practice;

(22) Investments relating to any Securitization Subsidiary of the Company or any Restricted Subsidiary organized in connection with a Qualified Securitization Financing that, in the good faith determination of the Board of Directors of the Company, are necessary or advisable to effect such Qualified Securitization Financing;

(23) Investments in the ordinary course of business consisting of UCC Article 3 endorsements for collection or deposit and UCC Article 4 customary trade arrangements with customers consistent with past practices;

(24) other Investments in any Person having an aggregate fair market value (measured on the date each such Investment was made and without giving effect to subsequent changes in value), when taken together with all other Investments made pursuant to this clause (24) that are at the time outstanding, not to exceed $500.0 million;

(25) Investments in Shanghai RAAS Equity Interest in connection with the Shanghai RAAS Transaction; and

(26) Investments by the Issuer in the Equity Interests of Shanghai RAAS (with par value of RMB1.00) in exchange for all or any portion of GDS Retained Equity so long as the consideration received for such GDS Retained Equity shall be in an amount at least equal to the fair market value thereof as determined by the Parent in good faith.

"*Permitted Joint Venture*" means any joint venture that the Company or any Restricted Subsidiary is a party to that is engaged in a Permitted Business.

"*Permitted Liens*" means:

(1) Liens to secure Obligations in respect of any Indebtedness incurred under clause (1) of the second paragraph of "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock";

(2) Liens securing Indebtedness incurred under the first paragraph of "—Limitation on Indebtedness and Issuance of Disqualified Stock and Preferred Stock"; *provided* that at the time of incurrence and after giving *pro forma* effect to the incurrence of such Indebtedness and the application of the proceeds therefrom on such date, the Secured Leverage Ratio would not exceed 4.50 to 1.00;

(3) Liens in favor of the Company or any Restricted Subsidiary;

(4) Liens and deposits to secure the performance of bids, trade contracts, leases, statutory obligations, letters of credit or trade guarantees, surety or appeal bonds, performance bonds or other obligations of a like nature, in each case in the ordinary course of business;

(5) Liens to secure Indebtedness (including Capital Lease Obligations) permitted by clause (4) of the second paragraph of "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock" covering only the assets acquired, or financed, with such Indebtedness;

(6) Liens existing on the date of the Indenture and any extensions, renewals or replacements thereof;

(7) Liens for taxes, assessments or governmental charges or claims that are not yet delinquent or that are being contested in good faith by appropriate proceedings promptly instituted and diligently concluded; *provided* that any reserve or other appropriate provision as is required in conformity with IFRS (or GAAP to the extent required by applicable law) has been made therefor and Liens for taxes assessed on real estate assets that are not delinquent;

(8) Liens, pledges or deposits in the ordinary course of business to secure workers' compensation claims, self retention or self-insurance obligations, unemployment insurance, performance, bid, release, appeal, surety and similar bonds and related reimbursement obligations and completion guarantees provided or incurred by the Company and the Restricted Subsidiaries in the ordinary course of business, lease obligations or non-delinquent obligations under social security laws and obligations in connection with participation in government insurance, benefits, reimbursement or other programs or other similar requirements, return of money bonds and other similar obligations, including obligations to secure health and safety and environmental obligations (exclusive of obligations for the payment of borrowed money or Indebtedness);

(9) Liens imposed by law, such as carrier's, supplier's, workmen's, warehousemen's, landlord's, materialmen's, repairmen's and mechanic's Liens and other similar Liens arising in the ordinary course of business or are being contested in good faith;

(10) easements, rights of way, restrictions and encroachments and other minor defects or irregularities in title (including matters indicated on a survey of an affected property), in each case, which do not interfere in any material respect with the use of the affected property by us and our Restricted Subsidiaries and that do not secure any monetary obligations which are not otherwise Liens permitted hereunder;

(11) Liens securing Hedging Obligations so long as the related Indebtedness permitted to be incurred under the Indenture and is secured by the same property securing the Hedging Obligations;

(12) [reserved];

(13) Liens securing Permitted Refinancing Indebtedness, *provided* that such Liens do not extend to any property or assets other than the property or assets that secure the Indebtedness being refinanced;

(14) Liens arising from judgments in circumstances not constituting an Event of Default as described under the heading "Events of Default and Remedies";

(15) Liens arising out of conditional sale, title retention, consignment or similar arrangements for sale of goods in the ordinary course of business;

(16) Liens in favor of customs or revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods;

(17) bankers' Liens, rights of setoff or similar rights and remedies as to deposit accounts;

(18) Liens on specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;

(19) Liens on insurance policies and proceeds thereof, or other deposits, to secure insurance premium financings in the ordinary course of business;

(20) Liens on accounts receivable and related assets of a Securitization Subsidiary incurred in connection with a Qualified Securitization Financing;

(21) Liens on property (including Capital Stock) of a Person existing at the time such Person becomes a Restricted Subsidiary of the Company or is merged with or into or consolidated with the Company or any

of its Restricted Subsidiaries; *provided* that such Liens were in existence prior to the contemplation of such Person becoming a Restricted Subsidiary of the Company or such merger or consolidation, were not incurred in contemplation thereof and do not extend to any assets other than those of the Person that becomes a Restricted Subsidiary of the Company or is merged with or into or consolidated with the Company or any of its Restricted Subsidiaries;

(22) filing of Uniform Commercial Code financing statements under U.S. state law (or similar filings under applicable jurisdiction) in connection with operating leases in the ordinary course of business;

(23) operating leases, licenses, subleases and sublicenses of assets (including real property and intellectual property rights), in each case entered into in the ordinary course of business;

(24) Liens (including put and call arrangements) on Capital Stock or other securities of any Unrestricted Subsidiary that secure Indebtedness of such Unrestricted Subsidiary;

(25) limited recourse Liens in respect of the ownership interests in, or assets owned by, any joint ventures which are not Restricted Subsidiaries securing obligations of such joint ventures;

(26) Liens on assets which do not constitute Collateral securing Indebtedness incurred by the Company or any Restricted Subsidiary that do not exceed $40 million at any one time outstanding;

(27) Liens created for the benefit of the notes and guarantees (other than additional notes);

(28) Liens solely on cash earnest money deposits made by the Company or any Restricted Subsidiary in connection with any letter of intent or purchase agreement entered into in connection with any Investment permitted under the Indenture;

(29) any interest of a lessor or sublessor under any lease of real estate permitted hereunder and covering only the assets so leased and any Liens encumbering such lessor's or sublessor's interest or title;

(30) any zoning or similar law or right reserved or vested in any governmental office or agency to control or regulate the use of any real property not inconsistent with the present use or operation of the real property

(31) Liens to secure Obligations in respect of Indebtedness incurred under clause (22) of the second paragraph of "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock"; and

(32) Liens to secure a Permitted Refinancing of the Existing Notes provided that at the time of incurrence and after giving pro forma effect to the incurrence of such Permitted Refinancing the Secured Leverage Ratio would not exceed 4.50 to 1.00.

"*Permitted Refinancing Indebtedness*" means any Indebtedness of the Company or any of the Restricted Subsidiaries issued in exchange for, or the net proceeds of which are used to extend, refinance, renew, replace, defease, refund or discharge other Indebtedness of the Company or any of the Restricted Subsidiaries (other than intercompany Indebtedness); *provided* that:

(1) the principal amount (or accreted value, if applicable) of such Permitted Refinancing Indebtedness does not exceed the principal amount (or accreted value, if applicable) of the Indebtedness extended, refinanced, renewed, replaced, defeased, refunded or discharged (plus all accrued interest on the Indebtedness and the amount of all fees, expenses and premiums incurred in connection therewith);

(2) such Permitted Refinancing Indebtedness has a final maturity date later than the final maturity date of, and has a Weighted Average Life to Maturity equal to or greater than the Weighted Average Life to Maturity of, the Indebtedness being extended, refinanced, renewed, replaced, defeased, refunded or discharged;

(3) if the Indebtedness being extended, refinanced, renewed, replaced, defeased, refunded or discharged is subordinated in right of payment to the notes, such Permitted Refinancing Indebtedness is subordinated in right of payment to, the notes on terms at least as favorable to the Holders of notes as those contained in the documentation governing the Indebtedness being extended, refinanced, renewed, replaced, defeased, refunded or discharged; and

(4) such Indebtedness is incurred either by the Company, a Guarantor or by the Restricted Subsidiary who is the obligor on the Indebtedness being extended, refinanced, renewed, replaced, defeased, refunded or discharged.

"*Person*" means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization, limited liability company or government or other entity.

"*Pro Forma Effect*" means:

(1) acquisitions that have been made or are, on the Calculation Date, being made by the specified Person or any of its Restricted Subsidiaries, including through mergers or consolidations, or any Person or any of its Restricted Subsidiaries acquired by (including acquisitions on the Calculation Date) the specified Person or any of its Restricted Subsidiaries, and including any related financing transactions and including any increase in ownership of Restricted Subsidiaries, during the four quarter reference period or subsequent to such reference period and on or prior to the Calculation Date will be given pro forma effect as if they had occurred on the first day of the four quarter reference period and Consolidated Cash Flow for such reference period will be calculated without giving effect to the deduction set forth in the definition of Consolidated Net Income;

(2) the Consolidated Cash Flow attributable to discontinued operations, as determined in accordance with IFRS and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded; and

(3) the Fixed Charges attributable to discontinued operations, as determined in accordance with IFRS and operations or businesses (and ownership interests therein) disposed of prior to the Calculation Date, will be excluded, but only to the extent that the obligations giving rise to such Fixed Charges will not be obligations of the specified Person or any of its Restricted Subsidiaries following the Calculation Date;

provided that whenever *pro forma* effect is to be given to an acquisition or a disposition, the amount of income or earnings related thereto (including the incurrence of any Indebtedness and any *pro forma* expense and cost reductions that have occurred or are reasonably expected to occur, regardless of whether those expense and cost reductions could then be reflected in *pro forma* financial statements in accordance with Regulation S-X promulgated under the Securities Act or any regulation or policy of the SEC related thereto) shall be reasonably determined in good faith by one of the Company's responsible senior financial or accounting officers so long as such cost savings are actually expected to be achieved within 12 months of such acquisition or disposition; *provided further* that any Run Rate Amounts shall be determined in accordance with the determination set forth in the definition of Consolidated Cash Flow.

"*Project Disposition*" means any sale, assignment, conveyance, transfer or other disposition of facilities under construction of the Company and its Restricted Subsidiaries as of the Issue Date (including the real estate related thereto) which are intended by the Company upon completion of construction to be repurchased or leased by the Company or one of its Restricted Subsidiaries or any business related, ancillary or complementary thereto; *provided*, that the consideration received for such assets shall be cash in an amount at least equal to the book value.

"*Qualified Equity Offering*" means any public or any private offering of the Company's Capital Stock (excluding Disqualified Stock).

"*Qualified Securitization Financing*" means any transaction or series of transactions entered into by the Company or any of its Restricted Subsidiaries pursuant to which the Company or such Restricted Subsidiary sells, conveys, contributes, assigns, grants an interest in or otherwise transfers to a Securitization Subsidiary, Securitization Assets (and/or grants a security interest in such Securitization Assets transferred or purported to be transferred to such Securitization Subsidiary), and which Securitization Subsidiary funds the acquisition of such Securitization Assets (a) with cash, (b) through the issuance to the Company's or such Seller's Retained Interests or an increase in the Company's or such Seller's Retained Interests, and/or (c) with proceeds from the sale, pledge or collection of Securitization Assets.

"*Rating Agencies*" means Moody's and S&P or if Moody's or S&P or both shall not make a rating on the notes publicly available, an internationally recognized statistical rating agency or agencies, as the case may be, selected by the Company which shall be substituted for Moody's or S&P or both, as the case may be.

"*Replacement Assets*" means any properties or assets used or useful in a Permitted Business.

"*Restricted Investment"* means any Investment other than a Permitted Investment.

"*Restricted Subsidiary*" means, at any time, each direct and indirect Subsidiary of the Company that is not then an Unrestricted Subsidiary; *provided*, *however*, that upon the occurrence of an Unrestricted Subsidiary ceasing to be an Unrestricted Subsidiary, such Subsidiary shall be included in the definition of "Restricted Subsidiary."

"*S&P*" means S&P Global Ratings and any successor to its rating agency business.

"*SEC*" means the Securities and Exchange Commission.

"*Security Documents*" means the U.S. Security Agreements, the Mortgages, if any, the Intellectual Property Security Agreements, each Foreign Law Security Document, if any, any collateral allocation mechanism and all other instruments, documents and agreements delivered by any Loan Party pursuant to this Agreement or any of the other Loan Documents in order to grant to the Collateral Agent, for the benefit of the Secured Parties, a Lien on any Collateral of that Loan Party as security for all or certain of the Obligations, including UCC financing statements and amendments thereto and filings with the United States Patent and Trademark Office and the United States Copyright Office.

"Secured Leverage Ratio" means the ratio as of the last day of any Fiscal Quarter of (a) Consolidated Secured Debt as of such day to (b) Consolidated Cash Flow for the four-Fiscal Quarter period ending on such date.

"*Secured Obligations*" means the Notes Obligations, the Senior Credit Facilities Obligations, the EIB Obligations and the Other Pari Passu Lien Obligations.

"*Securities Act*" means the Securities Act of 1933, as amended, and the rules and regulations of the SEC promulgated thereunder.

"*Securitization Assets*" means any accounts receivable owed to the Company or any of its Subsidiaries (whether now existing or arising or acquired in the future) arising in the ordinary course of business from the sale of goods or services, all collateral securing such accounts receivable, all contracts and contract rights and all guarantees or other obligations in respect of such accounts receivable, all proceeds of such accounts receivable and other assets (including contract rights) which are of the type customarily transferred or in respect of which security interests are customarily granted in connection with securitizations of accounts receivable and which are sold, conveyed, contributed, assigned, pledged or otherwise transferred by such Company or any of its Subsidiaries to a Securitization Subsidiary.

"*Securitization Repurchase Obligation*" means any obligation of a seller of Securitization Assets in a Qualified Securitization Financing to repurchase Securitization Assets arising as a result of a breach of a representation, warranty or covenant with respect to such Securitization Assets, including as a result of a receivable or portion thereof becoming subject to any asserted defense, dispute, off set, counterclaim or other dilution of any kind as a result of any action taken by, any failure to take action by or any other event relating to the seller, but in each case, not as a result of such receivable being or becoming uncollectible for credit reasons.

"*Securitization Subsidiary*" means a Restricted Subsidiary of the Company that engages in no activities other than in connection with the acquisition and/or financing of Securitization Assets, all proceeds thereof and all rights (contingent and other), collateral and other assets relating thereto, and any business or activities incidental or related to such business, and which is designated by the Board of Directors of the Company (or a duly authorized committee thereof) or such other Person (as provided below) as a Securitization Subsidiary and (a) no portion of the Indebtedness or any other obligations (contingent or otherwise) of which (i) is guaranteed by the Company or any of its Subsidiaries, other than another Securitization Subsidiary (excluding guarantees of obligations (other than the principal of, and interest on, Indebtedness) pursuant to Standard Securitization Undertakings), (ii) is recourse to or obligates the Company or any of its Subsidiaries, other than another Securitization Subsidiary, in any way other than pursuant to Standard Securitization Undertakings or (iii) subjects any property or asset (other than Securitization Assets) of the Company or any of its Subsidiaries, other than another Securitization Subsidiary, directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings, (b) with which none of the Company nor any of its Subsidiaries, other than another Securitization Subsidiary, has any material contract, agreement, arrangement or understanding other than (i) the applicable receivables purchase agreements and related agreements, in each case, having reasonably customary terms, or (ii) on terms which the Company reasonably believes to be no less favorable to the Company or the applicable Subsidiary than those that might be obtained at the time from Persons that are not Affiliates of the Company or any of its Subsidiaries and (c) to which neither the Company nor any of its Subsidiaries other than another Securitization Subsidiary, has any obligation to maintain or preserve such entity's financial condition or cause such entity to achieve certain levels of operating results. Any such designation by the Board of Directors of the Company (or a duly authorized committee thereof) or such other Person shall be evidenced to the Trustee by delivery to the Trustee of a certified copy of the resolution of the board of directors of the Company or such other Person giving effect

to such designation and a certificate executed by an authorized officer certifying that such designation complied with the foregoing conditions.

"*Seller's Retained Interests*" means the debt or equity interests held by the Company or any of its Subsidiaries in a Securitization Subsidiary to which Securitization Assets have been transferred, including any such debt or equity received as consideration for or as a portion of the purchase price for the Securitization Assets transferred, or any other instrument through the Company or such Subsidiary has rights to or receives distributions in respect of any residual or excess interest in the Securitization Assets.

"*Senior Credit Facilities Collateral Agent*" means the collateral agent pursuant to the Credit Agreement or any other first lien senior secured Credit Facility.

"*Senior Credit Facilities Obligations*" means the Obligations of the Company pursuant to the Credit Agreement or any other first lien senior secured Credit Facility.

"*Shanghai RAAS*" means Shanghai RAAS Blood Products Co., Ltd., a company limited by shares listed at the Shenzhen Stock Exchange with the approval of the China Securities Regulatory Commission under the stock code of 002252.

"*Shanghai RAAS Equity Interests*" means the issuance to the Company of RMB ordinary shares ("A" shares) with the par value of RMB1.00 per share of Shanghai RAAS in an amount equal to 26.2% of the fully diluted share capital of Shanghai RAAS.

"*Shanghai RAAS Strategic Alliance Agreement*" means that certain Exclusive Master Strategic Alliance Agreement, dated as of March 2019, by and among the Company, Shanghai RAAS, Creat Tiancheng Investment Holdings Co., Ltd. and Ningbo Creat Jinding Investment Partnership (Limited Partnership).

"*Shanghai RAAS Transaction*" means (a) the GDS Equity Interest Contribution, (b) the Investment by the Company in the Shanghai RAAS Equity Interests in exchange for the GDS Contributed Equity and (c) the performance by the Company and its Subsidiaries in connection with the above transaction and the Shanghai RAAS Strategic Alliance Agreement.

"*Shared Collateral*" means, at any time, Collateral in which any two or more of the Senior Credit Facilities Collateral Agent, the Notes Collateral Agent, EIB and the holders of any Other Pari Passu Lien Obligations hold a valid and perfected Lien at such time; *provided* that, for the avoidance of doubt, (i) the Capital Stock of Instituto Grifols, S.A. and (ii) proceeds of title insurance with respect to each Mortgaged Property (as defined in the Credit Agreement) shall be deemed to constitute Shared Collateral for all purposes under the Indenture and the proceeds of which shall be applied in accordance with the Pari Passu Intercreditor Agreement.

"*Significant Subsidiary*" means any Subsidiary that would be a "significant subsidiary" as defined in Article 1, Rule 1 02 of Regulation S X, promulgated pursuant to the Securities Act, as in effect on the Issue Date.

"*Standard Securitization Undertakings*" means representations, warranties, covenants, Securitization Repurchase Obligations and indemnities entered into by the Company or any of its Subsidiaries that are reasonably customary in accounts receivable securitization transactions.

"*Stated Maturity*" means, with respect to any installment of interest or principal on any series of Indebtedness, the date on which the payment of interest or principal was scheduled to be paid in the documentation governing such Indebtedness as of the Issue Date, and will not include any contingent obligations to repay, redeem or repurchase any such interest or principal prior to the date originally scheduled for the payment thereof.

"*Subordinated Indebtedness*" means all Indebtedness (whether outstanding on the Issue Date or thereafter incurred) that is subordinated or junior in right of payment to the notes pursuant to a written agreement, executed by the Person to whom such Indebtedness is owed, to that effect.

"*Subsidiary*" means, with respect to any Person, any corporation, partnership, limited liability company, association, joint venture or other business entity of which more than 50.0% of the total voting power of shares of stock or other ownership interests entitled (without regard to the occurrence of any contingency) to vote in the election of the Person or Persons (whether directors, managers, Trustees or other Persons performing similar functions) having the power to direct or cause the direction of the management and policies thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of

the other Subsidiaries of that Person or a combination thereof. Unless otherwise specified herein, all references to any "Subsidiary" shall refer to a Subsidiary of the Company.

"*Tax*" means any tax, duty, levy, impost, assessment or other governmental charge (including penalties, interest and any other liabilities related thereto).

"*Taxing Authority*" means any government or political subdivision or territory or possession of any government or any authority or agency therein or thereof having power to impose or collect any Tax.

"*Taxing Jurisdiction*" has the meaning set forth under "—Additional Amounts."

"*Total Assets*" means the total consolidated assets of the Company and the Restricted Subsidiaries, as shown on the most recent internal balance sheet of the Company prepared on a consolidated basis (excluding Unrestricted Subsidiaries) in accordance with IFRS.

"*Transactions*" means (i) the entry into the Credit Agreement and the incurrence of loans thereunder and the repayment of certain of the Company's and the Restricted Subsidiaries' existing Indebtedness in connection therewith and (iii) the issuance and sale of the notes offered hereby and the other transactions in connection therewith described in this offering memorandum under "Use of Proceeds."

"*Unrestricted Subsidiary*" means any Subsidiary (or any successor to any of them) that is designated by the Company's Board of Directors as an Unrestricted Subsidiary pursuant to a board resolution, but only to the extent that such Subsidiary:

(1) has no Indebtedness other than Non-recourse Debt;

(2) except as permitted by the covenant described under the heading "Certain Covenants—Transactions with Affiliates," is not party to any agreement, contract, arrangement or understanding with the Company or any Restricted Subsidiary unless the terms of any such agreement, contract, arrangement or understanding are no less favorable to the Company or such Restricted Subsidiary than those that might be obtained at the time from Persons who are not Affiliates of the Company and/or the Restricted Subsidiaries;

(3) is a Person with respect to which neither the Company nor any Restricted Subsidiary has any direct or indirect obligation (a) to subscribe for additional Equity Interests or (b) to maintain or preserve such Person's financial condition or to cause such Person to achieve any specified levels of operating results;

(4) has not Guaranteed or otherwise directly or indirectly provided credit support for any Indebtedness of the Company or any Restricted Subsidiary; and

(5) has at least one director on its Board of Directors that is not a director or executive officer of the Company or any Restricted Subsidiary and has at least one executive officer that is not a director or executive officer of the Company or any Restricted Subsidiary.

Any designation of a Subsidiary as an Unrestricted Subsidiary will be evidenced to the Trustee by filing with the Trustee a certified copy of the board resolution giving effect to such designation and an officer's certificate certifying that such designation complied with the preceding conditions and was permitted under "Certain Covenants—Restricted Payments." If, at any time, any Unrestricted Subsidiary would fail to meet the preceding requirements as an Unrestricted Subsidiary, it will thereafter cease to be an Unrestricted Subsidiary for purposes of the Indenture and any Indebtedness of such Subsidiary will be deemed to be incurred by a Restricted Subsidiary as of such date and, if such Indebtedness is not permitted to be incurred as of such date under "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock," the Company will be in default of such covenant. The Company's Board of Directors may at any time designate any Unrestricted Subsidiary to be a Restricted Subsidiary; *provided* that such designation will be deemed to be an incurrence of Indebtedness by a Restricted Subsidiary of any outstanding Indebtedness of such Unrestricted Subsidiary and such designation will only be permitted if (1) such Indebtedness is permitted under "Certain Covenants—Incurrence of Indebtedness and Issuance of Disqualified Stock and Preferred Stock," calculated on a pro forma basis as if such designation had occurred at the beginning of the four quarter reference period; (2) no Default or Event of Default would be in existence following such designation and (3) such Subsidiary executes and delivers to the Trustee a supplemental Indenture providing for a Guarantee.

"*Voting Stock*" of any Person as of any date means the Capital Stock of such Person that is at the time entitled to vote in the election of the Board of Directors of such Person.

"*Weighted Average Life to Maturity*" means, when applied to any Indebtedness at any date, the number of years obtained by dividing:

(1) the sum of the products obtained by multiplying (a) the amount of each then remaining installment, sinking fund, serial maturity or other required payments of principal, including payment at final maturity, in respect of the Indebtedness, by (b) the number of years (calculated to the nearest one twelfth) that will elapse between such date and the making of such payment; by

(2) the then outstanding principal amount of such Indebtedness.

NOTICE TO INVESTORS

Because the following restrictions will apply unless we cause one or more registration statements with respect to the resale of the notes to be declared effective under the Securities Act, purchasers are advised to consult legal counsel prior to making any offer, resale, pledge or transfer of any of the Notes. See "Description of Notes".

None of the Notes have been (or will be) registered under the Securities Act and they may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. Accordingly, the Notes are being offered and sold only (A) to "qualified institutional buyers", or QIBs (as defined in Rule 144A promulgated under the Securities Act, or Rule 144A) in compliance with Rule 144A and (B) outside the United States to persons other than U.S. persons, or non-U.S. purchasers, which term shall include dealers or other professional fiduciaries in the United States acting on a discretionary basis for non-U.S. beneficial owners (other than an estate or trust)) in reliance upon Regulation S under the Securities Act, or Regulation S. As used herein, the terms "United States" and "U.S. person" have the meanings given to them in Regulation S.

Each purchaser of Notes will be deemed to have represented and agreed as follows:

1. It is purchasing the Notes for its own account or an account with respect to which it exercises sole investment discretion and that it and any such account is either (A) a QIB and is aware that the sale to it is being made in reliance on Rule 144A or (B) a non-U.S. purchaser that is outside the United States (or a non-U.S. purchaser that is a dealer or other fiduciary as referred to above).

2. It acknowledges that the Notes have not been registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except as set forth below.

3. It agrees on its own behalf and on behalf of any investor account for which it is purchasing the Notes, and each subsequent holder of the Notes prior to the date (the "Resale Termination Date") that is one year (in the case of Rule 144A Notes) or 40 days (in the case of Regulation S Notes) after the later of the date of the original issue and the last date on which the Issuer or any of its affiliates were the owner of such Notes (or any predecessor thereto) only (i) the Issuer or the Guarantors (ii) pursuant to a registration statement that has been declared effective under the U.S. Securities Act or (iii) for so long as the Notes are eligible for resale pursuant to Rule 144A, to a person it reasonably believes is a QIB that purchases for its own account or for the account of a QIB to whom notice is given that the transfer is being made in reliance on Rule 144A; (iv) pursuant to offers and sales that occur outside the United States in offshore transactions in compliance with Regulation S; or (v) pursuant to any other available exemption from the registration requirements of the U.S. Securities Act, subject in each of the foregoing cases to any requirement of law that the disposition of its property or the property of such investor account or accounts be at all times within its or their control and in compliance with any applicable state securities laws, and any applicable local laws and regulations, and further subject to the Issuer and the Holders' Representative's rights prior to any such offer, sale or transfer (I) pursuant to clause (v) above to require the delivery of an opinion of counsel, certification and other information satisfactory to each of them and (II) in each of the foregoing cases, to require that a certificate of transfer is completed and delivered by the transferor to the Holders' Representative. The foregoing restrictions on resale will not apply subsequent to the Resale Restriction Termination Date.

4. It agrees that it will give to each person to whom it transfers the Notes notice of any restrictions on transfer of such Notes.

5. It acknowledges that prior to any proposed transfer of Notes in certificated form or of beneficial interests in a note in global form, or a global note (in each case other than pursuant to an effective registration statement) the holder of Notes or the holder of beneficial interests in a global note, as the case may be, may be required to provide certifications and other documentation relating to the manner of such transfer and submit such certifications and other documentation as provided in the Indenture.

6. It understands that all of the Notes will bear a legend substantially to the following effect unless otherwise agreed by us and the holder thereof;

THIS SECURITY HAS NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "U.S. SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION. NEITHER THIS SECURITY NOR ANY INTEREST OR PARTICIPATION HEREIN MAY BE REOFFERED, SOLD, ASSIGNED, TRANSFERRED, PLEDGED, ENCUMBERED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS SUCH TRANSACTION IS EXEMPT FROM THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT. THE HOLDER OF THIS SECURITY, BY ITS ACCEPTANCE HEREOF, (1) REPRESENTS THAT (A) IT IS A "QUALIFIED INSTITUTIONAL BUYER" (AS DEFINED IN RULE 144A UNDER THE U.S. SECURITIES ACT ("RULE 144A")) OR (B) IT IS NOT A U.S. PERSON AND IS ACQUIRING THIS NOTE IN AN "OFFSHORE TRANSACTION" PURSUANT TO RULE 904 OF REGULATION S UNDER THE U.S. SECURITIES ACT, AND (2) AGREES ON ITS OWN BEHALF AND ON BEHALF OF ANY INVESTOR FOR WHICH IT HAS PURCHASED SECURITIES TO OFFER, SELL OR OTHERWISE TRANSFER SUCH SECURITY, PRIOR TO THE RESALE RESTRICTION TERMINATION DATE, WHICH IS IN THE CASE OF REGULATION S NOTES: 40 DAYS AFTER THE LATER OF THE ORIGINAL ISSUE DATE HEREOF AND THE DATE ON WHICH THIS SECURITY WAS FIRST OFFERED TO PERSONS OTHER THAN DISTRIBUTORS (AS DEFINED IN RULE 902 OF THE REGULATION S) IN THE CASE OF RULE 144A NOTES: ONE YEAR AFTER THE LATEST OF THE ORIGINAL ISSUE DATE HEREOF, AND THE LAST DATE ON WHICH THE ISSUER OR ANY AFFILIATE OF THE ISSUER WAS THE OWNER OF THIS SECURITY (OR ANY PREDECESSOR OF THIS SECURITY), ONLY (A) TO THE ISSUER OR THE GUARANTORS, (B) PURSUANT TO A REGISTRATION STATEMENT WHICH HAS BEEN DECLARED EFFECTIVE UNDER THE U.S. SECURITIES ACT, (C) FOR SO LONG AS THE SECURITIES ARE ELIGIBLE FOR RESALE PURSUANT TO RULE 144A, TO A PERSON IT REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER THAT PURCHASES FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER TO WHOM NOTICE IS GIVEN THAT THE TRANSFER IS BEING MADE IN RELIANCE ON RULE 144A, (D) PURSUANT TO OFFERS AND SALES THAT OCCUR OUTSIDE THE UNITED STATES IN COMPLIANCE WITH REGULATION S UNDER THE U.S. SECURITIES ACT, OR (E) PURSUANT TO ANY OTHER AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE U.S. SECURITIES ACT, SUBJECT IN EACH OF THE FOREGOING CASES TO ANY REQUIREMENT OF LAW THAT THE DISPOSITION OF ITS PROPERTY OR THE PROPERTY OF SUCH INVESTOR ACCOUNT OR ACCOUNTS BE AT ALL TIMES WITHIN ITS OR THEIR CONTROL AND IN COMPLIANCE WITH ANY APPLICABLE STATE SECURITIES LAWS, AND ANY APPLICABLE LOCAL LAWS AND REGULATIONS AND FURTHER SUBJECT TO THE ISSUER'S AND THE HOLDERS' REPRESENTATIVE'S RIGHTS PRIOR TO ANY SUCH OFFER, SALE OR TRANSFER PURSUANT TO CLAUSE (E) TO REQUIRE THE DELIVERY OF AN OPINION OF COUNSEL, CERTIFICATION AND OTHER INFORMATION SATISFACTORY TO EACH OF THEM.

7. It acknowledges that each purchaser and subsequent transferee of a Note will be deemed to have represented and warranted that either (i) no portion of the assets used by such purchaser or transferee to acquire and hold the Notes constitutes assets of any "employee benefit plan" (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended, or "ERISA") subject to Title I of ERISA, any plan, individual retirement account or other arrangement subject to Section 4975 of the Internal Revenue Code of 1986, as amended from time to time, including the regulations promulgated and the rules issued thereunder (the "Code") or provisions under any federal, state, local, non U.S. or regulations that are similar to such provisions of ERISA or the Internal Revenue Code (collectively, "Similar Law") or (ii) (A) all or a portion of the assets used by such purchaser or transferee to acquire and hold the Notes constitutes assets of any such employee benefit plan, plan, account or other arrangement, (B) the acquisition, holding and disposition of the Notes will not constitute or result in a nonexempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or similar violation under any applicable Similar Law, and (C) (1) none of the Issuer, Initial Purchaser, the Trustee or other persons that provide marketing services, nor any of their affiliates, has provided, and none of them will provide, any investment recommendation or investment advice on which it, or any fiduciary or other person investing the assets of the applicable plan ("Plan Fiduciary"), has relied as a primary basis in connection with its decision to invest in the

Notes, and they are not otherwise acting as a fiduciary, as defined in Section 3(21) of ERISA or Section 4975(e)(3) of the Code, to such investor or the Plan Fiduciary in connection with the investor's acquisition of the Notes, and (2) the Plan Fiduciary is exercising its own independent judgment in evaluating the investment in the Notes.

8. It acknowledges that neither we nor the initial purchasers, nor any person representing us or the initial purchasers, has made any representation to you with respect to the offering or sale of any Notes, other than the information contained in this offering memorandum, which offering memorandum has been delivered to it and upon which are relying in making your investment decision with respect to the Notes. It acknowledges that neither the initial purchasers nor any person representing the initial purchasers makes any representation or warranty as to the accuracy or completeness of the information contained in this offering memorandum. It also has had access to such financial and other information concerning us and the Notes have deemed necessary in connection with your decision to purchase any of the Notes.

9. It acknowledges that the trustee will not be required to accept for registration of transfer any Notes acquired by it, except upon presentation of evidence satisfactory to us and the trustee that the restrictions set forth herein have been complied with.

10. It acknowledges that we, the initial purchasers and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements and agrees that if any of the acknowledgments, representations or agreements deemed to have been made by its purchase of the Notes are no longer accurate, it shall promptly notify Grifols, S.A. and the initial purchasers. If it is acquiring the Notes as a fiduciary or agent for one or more investor accounts, it represents that it has sole investment discretion with respect to each such account and it has full power to make the foregoing acknowledgments, representations, and agreements on behalf of each account.

BOOK-ENTRY; DELIVERY AND FORM

General

The 2025 Notes issued to qualified institutional buyers (as defined in Rule 144A under the Securities Act) in reliance on Rule 144A (the "2025 Rule 144A Global Notes") will in each case initially be represented by one or more global 2025 Notes in registered form without interest coupons attached and the 2025 Notes issued to non-U.S. persons outside the Unites States in reliance on Regulation S under the Securities Act (the "2025 Regulation S Global Notes") will in each case initially be represented by one or more global 2025 Notes in registered form without interest coupons attached.

The 2027 Notes issued to qualified institutional buyers (as defined in Rule 144A under the Securities Act) in reliance on Rule 144A (the "2027 Rule 144A Global Notes" and with the 2025 Rule 144A Global Notes, the "Rule 144A Global Notes") will in each case initially be represented by one or more global 2027 Notes in registered form without interest coupons attached and the 2027 Notes issued to non-U.S. persons outside the Unites States in reliance on Regulation S under the Securities Act (the "2027 Regulation S Global Notes" and with the 2025 Regulation S Global Notes, the "Regulation S Global Notes")) will in each case initially be represented by one or more global 2027 Notes in registered form without interest coupons attached. The Rule 144A Global Notes together with the Regulation S Global Notes are collectively referred to as the "Global Notes". The Global Notes will be deposited with a common depositary, and registered in the name of the nominee of the common depositary for the accounts of Euroclear and Clearstream.

Ownership of interests in the Rule 144A Global Notes (the "Restricted Book-Entry Interests") and ownership of interests in the Regulation S Global Notes (the "Unrestricted Book-Entry Interests" and, together with the Restricted Book-Entry Interests, the "Book-Entry Interests") will be limited to persons that have accounts with Euroclear or Clearstream or persons that hold interests through such participants.

Euroclear and Clearstream will hold interests in the Global Notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositaries. Except under the limited circumstances described below, Notes will not be issued in definitive form.

Book-Entry Interests will be shown on, and transfers thereof will be effected only through, records maintained by Euroclear and Clearstream and their participants. The laws of some jurisdictions, including some states of the United States, may require that certain purchasers of securities take physical delivery of those securities in definitive form. The foregoing limitations may impair your ability to own, transfer or pledge Book-Entry Interests. In addition, while the Notes are in global form, holders of Book-Entry Interests will not be considered the owners or "holders" of Notes for any purpose.

So long as the Notes are held in global form, Euroclear or Clearstream, as applicable, will be considered the sole holder(s) of the Global Notes for all purposes under the Indenture governing the Notes. In addition, participants must rely on the procedures of Euroclear or Clearstream, as applicable, and indirect participants must rely on the procedures of the participants through which they own Book-Entry Interests to transfer their interests or to exercise any rights of holders under the Indenture governing the Notes. Neither we nor the trustee under the indenture, BNY Mellon Corporate Trustee Services Limited, or the Trustee, will have any responsibility or be liable for any aspect of the records relating to the Book-Entry Interests.

Payments on Global Notes

Payments of any amounts owing in respect of the Global Notes of each series (including principal, premium, if any, interest and Additional Amounts, if any) will be made by us to the common depositary or its nominee for Euroclear and Clearstream. The common depositary or its nominee will distribute such payments to participants in accordance with their procedures. Payments of all such amounts will be made without deduction or withholding for or on account of any present or future taxes, duties, assessments or governmental charges of whatever nature except as may be required by law. If any such deduction or withholding is required to be made by any applicable law or regulation of Spain or otherwise as described under "Description of Notes", then, to the extent described under "Description of Notes", such Additional Amounts will be paid as may be necessary in order that the net amounts received by any holder of the Global Notes or owner of Book-Entry Interests after such deduction or withholding will equal the net amounts that such holder or owner would have otherwise received in respect of such Global Note or Book-Entry Interest, as the case may be, absent such withholding or deduction. We expect that payments by participants to owners of Book-Entry Interests held through those participants will be governed by

standing customer instructions and customary practices. Under the terms of the Indenture governing the Notes, we and the Trustee will treat the registered holder of the Global Notes of either series (e.g. Euroclear or Clearstream (or their respective nominees)) as the owner thereof for the purpose of receiving payments and for all other purposes. Consequently, neither we, the Trustee nor any of our or the Trustee's agents have or will have any responsibility or liability for:

(1) any aspect of the records of Euroclear or Clearstream or of any participant or indirect participant relating to or payments made on account of a Book-Entry Interest, or for maintaining, supervising or reviewing the records of Euroclear or Clearstream or any participant or indirect participant relating to or payments made on account of a Book-Entry Interest;

(2) Euroclear or Clearstream or any participant or indirect participant; or

(3) the records of the common depositary.

Currency of payment for the Global Notes

The principal of, premium, if any, and interest on, and all other amounts payable in respect of the Global Notes of a series will be paid to holders of interest in such Notes of such series through Euroclear or Clearstream in euros.

Action by Owners of Book-Entry Interests

Euroclear and Clearstream have advised us that they will take any action permitted to be taken by a holder of Notes only at the direction of one or more participants to whose account the Book-Entry Interests in the Global Notes are credited and only in respect of such portion of the aggregate principal amount of Notes as to which such participant or participants has or have given such direction. Euroclear and Clearstream will not exercise any discretion in the granting of consents, waivers or the taking of any other action in respect of the Global Notes. However, if there is an Event of Default under the Notes, Euroclear and Clearstream reserve the right to exchange the Global Notes for Definitive Registered Notes in certificated form, and to distribute such Definitive Registered Notes to its participants.

Transfers

Transfers between participants in Euroclear and Clearstream will be effected in accordance with Euroclear and Clearstream rules and will be settled in immediately available funds. If a holder of Notes requires physical delivery of Definitive Registered Notes for any reason, including to sell Notes to persons in states which require physical delivery of such securities or to pledge such securities, such holder of Notes must transfer its interest in the Global Notes in accordance with the normal procedures of Euroclear and Clearstream and in accordance with the procedures set forth in the Indenture governing the Notes.

The Global Notes of each series will bear a legend to the effect set forth in "Notice to Investors". Book-Entry Interests in the Global Notes will be subject to the restrictions on transfers and certification requirements discussed under "Notice to Investors".

Transfer of Restricted Book-Entry Interests to persons wishing to take delivery of Restricted Book-Entry Interests will at all times be subject to such transfer restrictions.

Restricted Book-Entry Interests may be transferred to a person who takes delivery in the form of any Unrestricted Book-Entry Interest only upon delivery by the transferor of a written certification (in the form provided in the Indenture governing the Notes) to the effect that such transfer is being made in accordance with Regulation S or Rule 144 (if available) under the Securities Act.

Any Book-Entry Interest in one of the Global Notes that is transferred to a person who takes delivery in the form of a Book-Entry Interest in the other Global Note will, upon transfer, cease to be a Book-Entry Interest in the first mentioned Global Note and become a Book-Entry Interest in such other Global Note, and, accordingly, will thereafter be subject to all transfer restrictions, if any, and other procedures applicable to Book-Entry Interests in such other Global Note for as long as it remains such a Book-Entry Interest.

Definitive Registered Notes

Under the terms of the Indenture governing the Notes, owners of the Book-Entry Interests will receive Definitive Registered Notes of a series only:

(1) if Euroclear or Clearstream notifies us that it is unwilling or unable to continue to act and a successor is not appointed by us within 90 days; or

(2) if Euroclear or Clearstream so requests following an Event of Default under the Indenture governing the Notes.

Information concerning Euroclear and Clearstream

Euroclear and Clearstream hold securities for participating organizations and facilitate the clearance and settlement of securities transactions between their respective participants through electronic book-entry changes in accounts of such participants. Euroclear and Clearstream provide to their participants, among other things, services for safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream interface with domestic securities markets. Euroclear and Clearstream participants are financial institutions such as underwriters, securities brokers and dealers, banks, trust companies and certain other organizations. Indirect access to Euroclear or Clearstream is also available to others such as banks, brokers, dealers and trust companies that clear through or maintain a custodian relationship with Euroclear or Clearstream participants, either directly or indirectly.

Trustee's Powers

In considering the interests of the holders of the Notes, while title to the Notes is registered in the name of a nominee for a clearing system, the Trustee may have regard to any information provided to it by that clearing system as to the identity (either individually or by category) of its accountholders with entitlements to Notes and may consider such interests as if such accountholders were the holders of the Notes.

Enforcement

For the purposes of enforcement of the provisions of the Indenture governing the Notes against the Trustee, the persons named in a certificate of the holder of the Notes in respect of which a Global Note is issued shall be recognized as the beneficiaries of the trusts set out in the Indenture governing the Notes to the extent of the principal amounts of their interests in Notes set out in the certificate of the holder, as if they were themselves the holders of Notes in such principal amounts.

PLAN OF DISTRIBUTION

Subject to the terms and conditions set forth in a purchase agreement among us, as issuer of the Notes, and Merrill Lynch International, BNP Paribas, HSBC Bank plc, Banco Bilbao Vizcaya Argentaria, S.A., and J.P. Morgan Securities plc, as the initial purchasers, we have agreed to sell to the initial purchasers, and each of the initial purchasers has agreed, severally and not jointly, to purchase from us, the principal amount of Notes offered hereby.

Subject to the terms and conditions set forth in the purchase agreement, the initial purchasers have agreed, severally and not jointly, to purchase all of the Notes sold under the purchase agreement if any of these Notes are purchased. If an initial purchaser defaults, the purchase agreement provides that the purchase commitments of the non-defaulting initial purchasers may be increased or the purchase agreement may be terminated.

We have agreed to indemnify the initial purchasers against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the initial purchasers may be required to make in respect of those liabilities.

Commissions and Discounts

The initial purchasers propose initially to offer the Notes at the offering price set forth on the cover page of this offering memorandum. After the initial offering, the offering price or any other term of the offering may be changed. The initial purchasers may offer and sell the Notes through certain of their affiliates.

Notes Are Not Being Registered

The Notes have not been registered under the Securities Act or any state securities laws. The initial purchasers propose to offer the Notes for resale in transactions not requiring registration under the Securities Act or applicable state securities laws, including sales pursuant to Rule 144A and Regulation S. The initial purchasers will not offer or sell the Notes except to persons they reasonably believe to be qualified institutional buyers or pursuant to offers and sales to non-U.S. persons that occur outside of the United States within the meaning of Regulation S. In addition, until 40 days following the commencement of this offering, an offer or sale of Notes within the United States by a dealer (whether or not participating in the offering) may violate the registration requirements of the Securities Act unless the dealer makes the offer or sale in compliance with Rule 144A or another exemption from registration under the Securities Act. Each purchaser of the Notes will be deemed to have made acknowledgments, representations and agreements as described under "Notice to Investors".

New Issue of Notes

Currently, there is no public market for either series of Notes. Application has been made to Euronext Dublin for each series of the Notes to be admitted to the Official List and to be traded on the Global Exchange Market of Euronext Dublin. The Global Exchange Market is not a regulated market for the purposes of Directive 2014/65/EU. There is no assurance that either series of Notes will be listed on the Official List of Euronext Dublin and admitted to be traded on the Global Exchange Market of Euronext Dublin, and we cannot assure you that an active trading market for either series of Notes will develop.

Settlement

We expect that delivery of the Notes will be made to investors on or about November 15, 2019, which will be the fifth business day following the date of this offering memorandum (such settlement being referred to as "T+5"). Under Rule 15c6-1 under the Securities Exchange Act of 1934, trades in the secondary market are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade the Notes prior to the delivery of the Notes hereunder will be required, by virtue of the fact that the notes initially settle in T+5, to specify an alternate settlement arrangement at the time of any such trade to prevent a failed settlement. Purchasers of the Notes who wish to trade the Notes prior to their date of delivery hereunder should consult their advisors.

No Sales of Similar Securities

We have agreed that we will not, for a period of 90 days after the date of this offering memorandum, without first obtaining the prior written consent of the initial purchasers, directly or indirectly, issue, sell, offer to contract or grant any option to sell, pledge, transfer or otherwise dispose of, any debt securities or

securities exchangeable for or convertible into debt securities, except for the Notes sold to the initial purchasers pursuant to the purchase agreement.

Short Positions

In connection with the offering, the initial purchasers may purchase and sell the Notes in the open market. These transactions may include short sales and purchases on the open market to cover positions created by short sales. Short sales involve the sale by the initial purchasers of a greater principal amount of Notes than they are required to purchase in the offering. The initial purchasers must close out any short position by purchasing Notes in the open market. A short position is more likely to be created if the initial purchasers are concerned that there may be downward pressure on the price of the Notes of a series in the open market after pricing that could adversely affect investors who purchase in the offering.

Similar to other purchase transactions, the initial purchasers' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of the Notes or preventing or retarding a decline in the market price of the Notes of a series. As a result, the price of the Notes of a series may be higher than the price that might otherwise exist in the open market.

Neither we nor any of the initial purchasers make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Notes. In addition, neither we nor any of the initial purchasers make any representation that the initial purchasers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

MIFID II Product Governance / Professional Investors and ECPs Only Target Market

Solely for the purposes of each manufacturer's product approval process, the target market assessment in respect of the Notes has led to the conclusion that: (i) the target market for the Notes is eligible counterparties and professional clients only, each as defined in MiFID II; and (ii) all channels for distribution of the Notes to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Notes (a "**distributor**") should take into consideration the manufacturers' target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Notes (by either adopting or refining the manufacturers' target market assessment) and determining appropriate distribution channels.

European Economic Area

The Notes are not intended to be offered, sold, or otherwise made available to and should not be offered, sold, or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the "Prospectus Regulation"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering, selling the Notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering, selling or distributing the Notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPS Regulation. This offering memorandum has been prepared on the basis that any offer of Notes in any Member State of the EEA will be made pursuant to an exemption under the Prospectus Regulation from the requirement to publish a prospectus for offers of Notes. This offering memorandum is not a prospectus for the purposes of the Prospectus Regulation.

Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order") and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied on in the

United Kingdom by persons who are not relevant persons. In the United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons.

Notice to Prospective Investors in Spain

Neither the Notes nor this offering memorandum have been, nor it is intended that they will be, registered with the Spanish Securities Market Commission (*Comisión Nacional del Mercado de Valores*) and therefore this offering memorandum is not intended for any public offer of the Notes in Spain. Therefore, the Notes may not be offered, sold, distributed, or subject to any subsequent resale in Spain, except in circumstances which do not constitute a public offer of securities in Spain within the meaning of the Restated Text of the Spanish Securities Market Law approved by Legislative Royal Decree 4/2015 of 23 October (*Real Decreto Legislativo 4/2015, de 23 de Octubre, por el que se aprueba el texto refundido de la Ley del Mercado de Valores*), as amended, or without complying with all legal and regulatory requirements under Spanish securities laws.

This offering memorandum has not been registered with the Comisión Nacional del Mercado de Valores, or the CNMV, and therefore the Notes may not be offered or sold or distributed in Spain except in circumstances which do not qualify as a public offer of securities in Spain in accordance with article 35 of the revised Securities Market Act (Real Decreto Legislativo 4/2015, de 23 de octubre, por el que se aprueba el texto refundido de la Ley del Mercado de Valores) as amended and restated, or pursuant to an exemption from registration in accordance with article 41 of the Royal Decree 1310/2005 (Real Decreto 1310/2005, de 4 de noviembre, por el que se desarrolla parcialmente la Ley 24/1988, de 28 de julio, del Mercado de Valores, en materia de admisión a negociación de valores en mercados secundarios oficiales, de ofertas públicas de venta o suscripción y del folleto exigible a tales efectos).

Notice to Prospective Investors in Ireland

The Notes may not be offered, sold, placed or underwritten in Ireland, otherwise than in conformity with the provisions of:

(i) Regulation (EU) 2017/1129 (the Prospectus Regulation), Commission Delegated Regulation (EU) 2019/980 (PR Regulation), Commission Delegated Regulation (EU) 2019/979 (RTS Regulation) and any Central Bank of Ireland ("**Central Bank**") rules issued and / or in force pursuant to Section 1363 of the Companies Act 2014 (as amended) (the "**Companies Act**")

(ii) the Companies Act;

(iii) the European Union (Markets in Financial Instruments) Regulations 2017 (as amended) and it will conduct itself in accordance with any rules or codes of conduct and any conditions or requirements, or any other enactment, imposed or approved by the Central Bank;

(iv) Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse, the European Union (Market Abuse) Regulations 2016 and any Central Bank rules issued and / or in force pursuant to Section 1370 of the Companies Act, and will assist the Issuer in complying with its obligations thereunder;

(v) Regulation (EU) No 1286/2014 of the European Parliament and of the Council of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs); and the Central Bank Acts 1942 to 2018 (as amended) and any codes of conduct rules made under Section 117(1) of the Central Bank Act 1989.

Notice to Prospective Investors in Switzerland

This offering memorandum does not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations and the Notes will not be listed on the SIX Swiss Exchange. Therefore, this offering memorandum may not comply with the disclosure standards of the listing rules (including any additional listing rules or prospectus schemes) of the SIX Swiss Exchange. Accordingly, the Notes may not be offered to the public in or from Switzerland, but only to a selected and limited circle of investors who do not subscribe to the Notes with a view to distribution. Any such investors will be individually approached by the initial purchasers from time to time.

Notice to Prospective Investors in Italy

The offering has not been cleared by the *Commissione Nazionale per le Societ'a e la Borsa* ("**CONSOB**") (the Italian securities exchange commission) pursuant to Italian securities legislation and will not be subject to formal review by CONSOB. Accordingly, no Notes may be offered, sold or delivered, directly or indirectly nor may copies of this offering memorandum or of any other document relating to the Notes be distributed in the Republic of Italy, except (a) to qualified investors (*investitori qualificati*) as defined in Article 35, first paragraph, letter (d) of CONSOB Regulation No. 20307 of February 15, 2018, as amended ("**Regulation 20307**"), pursuant to Article 34-*ter*, first paragraph letter (b) of CONSOB Regulation No. 11971 of May 14, 1999, as amended ("**Regulation 11971**"), implementing Article 100 of Legislative Decree No. 58 of February 24, 1998, as amended (the "**Italian Financial Act**"); and (b) in any other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Italian Financial Act and the implemented CONSOB regulations, including Regulation 11971.

For the purposes of this provision, the expression "**offer of Notes to the public**" in Italy means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe the Notes, including the placement through authorized intermediaries.

Any such offer, sale or delivery of the Notes or distribution of copies of this offering memorandum or any other document relating to the Notes in the Republic of Italy must be in compliance with the selling restrictions under (a) and (b) above and must be:

(i) made by *soggetti abilitati* (including investment firms, banks or financial intermediaries, as defined by Article 1, first paragraph, letter r), of the Italian Financial Act), to the extent duly authorized to engage in the placement or underwriting or purchase of financial instruments in the Republic of Italy in accordance with the relevant provisions of the Italian Financial Act, Regulation 20307, as amended, Italian Legislative Decree No. 385 of September 1, 1993, as amended (the "**Italian Banking Act**"), Regulation 11971 and any other applicable laws and regulations;

(ii) in compliance with all relevant Italian securities, tax, exchange control and any other applicable laws and regulations and any other applicable requirement or limitation that may be imposed from time to time by CONSOB, the Bank of Italy (including, the reporting requirements, where applicable, pursuant to Article 129 of the Italian Banking Act and the implementing guidelines of the Bank of Italy, as amended from time to time) or any other relevant Italian competent authorities; and

(iii) in compliance with any other applicable laws and regulations or requirement imposed by CONSOB or the Bank of Italy or any other Italian authority.

Any investor purchasing the Notes is solely responsible for ensuring that any offer, sale, delivery or resale of the Notes by such investor occurs in compliance with applicable Italian laws and regulations.

Notice to Prospective Investors in Canada

The Notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the Notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this offering memorandum (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the initial purchasers are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Other Relationships

Certain of the initial purchasers or their respective affiliates have committed to become agents, arrangers, book-runners, managers or lenders under the New First Lien Facilities and will receive customary fees and expenses in connection therewith. Additionally, certain of the initial purchasers or their respective affiliates are lenders to us and our subsidiaries under the Existing Credit Facilities and accordingly, will receive a portion of the net proceeds from this offering through the repayment by us of amounts outstanding under the Existing Credit Facilities. See "Use of Proceeds". Furthermore, some of the initial purchasers and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the initial purchasers and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. Certain of the underwriters or their affiliates that have a lending relationship with us routinely hedge their credit exposure to us consistent with their customary risk management policies. Typically, such underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the Notes offered hereby. Any such short positions could adversely affect future trading prices of the Notes offered hereby. The initial purchasers and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

SERVICE OF PROCESS AND ENFORCEMENT OF CIVIL LIABILITIES

The Issuer is organized in Spain, and the Guarantors are incorporated, or organized, in the United States, Ireland and Spain. Grifols, S.A. is a company (*sociedad anónima*) organized under the laws of Spain. The large majority of the Issuer's and Guarantors' board members and senior management reside outside the United States. Many of the assets of the Issuer, the Guarantors and those other persons are located outside the United States. Although we will appoint an agent for service of process in the United States and will submit to the jurisdiction of New York courts, in each case, in connection with any action under U.S. securities laws, it may not be possible for investors to effect service of process on us or on such persons within the United States in any action, including actions predicated upon the civil liability provisions of U.S. federal securities laws.

If a judgment is obtained in a U.S. court against the Issuer or any Guarantor, investors will need to enforce such judgment in jurisdictions where the relevant company has assets, which may not be such investors' jurisdiction of domicile. In addition, Spanish counsel have informed us that it is questionable whether a Spanish court would accept jurisdiction and impose civil liability if proceedings were commenced in Spain predicated solely upon U.S. federal or state securities laws. If a judgment is obtained in a U.S. court against the Issuer, any Guarantor, or any of their respective directors or senior management, investors will need to enforce such judgment in jurisdictions where the relevant company or individual has assets. Therefore, a final judgment for the payment of money rendered by any federal or state court in the United States based on civil liability, whether or not based on United States federal or state securities laws, would not be automatically enforceable in such countries. You should consult with your own advisers in any pertinent jurisdictions as needed to enforce a judgment in those countries or elsewhere outside the United States.

The statute of limitations applicable to payment of interest and repayment of principal under New York law is six years.

Spain

Grifols is advised by its Spanish legal counsel, Osborne Clarke España, S.L.P., (i) that there is doubt as to the enforceability in Spain in original actions or in actions, for enforcement of judgments of U.S. courts, of liabilities predicated solely upon the securities laws of the United States and (ii) that any final and binding judgment obtained against Grifols in the United States would be recognized and enforced by the courts of Spain in accordance with the Law of Civil Procedure (Ley *de Enjuiciamiento Civil*) if the appropriate order *(exequatur)* were obtainable, for which prior to the time such judgment is introduced into a Spanish court for enforcement, there should be no material contradiction or incompatibility between the referred judgment with a judgment rendered or judicial proceedings outstanding in Spain, and (a) according to the provisions of any applicable treaty (there is none currently in existence with the United States), or (b) in the absence of any such treaty, if it could be proven that the judgment does not infringe any of the requirements set out by Spanish Act 29/2015 on International legal cooperation in civil matters, to be recognized.

Pursuant to article 44 of Spanish Act 29/2015, the recognition (throughout the *exequatur*'s process) shall be refused: (1) if such recognition is manifestly contrary to public policy in Spain; or (2) if the judgment or decision has been rendered in a procedure where the rights of the defendant have been violated, placing the defendant in a situation in which the defendant's due process rights are denied, or infringing the defendant's right to an effective judicial protection; or (3) where the judgment was given in default of appearance, if the defendant was not served with the document which instituted the proceedings or with an equivalent document in sufficient time and in such a way as to enable the defendant to arrange for its defense; or (4) the judgment or decision must not have been rendered on matters falling within the exclusive jurisdiction of the Spanish courts or, with regard to other matters, if the jurisdiction of the court of origin does not obey any reasonable connection; or (5) if the judgment is irreconcilable with an earlier judgment given in another State, provided that the earlier judgment fulfills the conditions necessary for its recognition in Spain.

Ireland

As the United States is not a party to a convention with Ireland in respect of the enforcement of judgments, common law rules apply in order to determine whether a judgment of the courts of the State of

New York is enforceable in Ireland. A judgment of the courts of the State of New York will be enforced by the courts of Ireland if the following general requirements are met:

(i) the courts of the State of New York must have had jurisdiction in relation to the particular defendant according to Irish conflict of law rules (the submission to jurisdiction by the defendant would satisfy this rule); and

(ii) the judgment must be final and conclusive and the decree must be final and unalterable in the court which pronounces it. A judgment can be final and conclusive even if it is subject to appeal or even if an appeal is pending. However, where the effect of lodging an appeal under the applicable law is to stay execution of the judgment, it is possible that, in the meantime, the judgment should not be actionable in Ireland. It remains to be determined whether final judgment given in default of appearance is final and conclusive.

However, Irish courts may refuse to enforce a judgment of the courts of the State of New York which meets the above requirements for one of the following reasons:

(i) if the judgment is not for a definite sum of money;

(ii) if the judgment was obtained by fraud;

(iii) the enforcement of the judgment in Ireland would be contrary to natural or constitutional justice;

(iv) the judgment is contrary to Irish public policy or involves certain U.S. laws which will not be enforced in Ireland;

(v) jurisdiction cannot be obtained by the Irish courts over the judgment debtors in the enforcement proceedings by personal service in Ireland or outside Ireland under Order 11 of the Superior Courts Rules;

(vi) if the judgment is irreconcilable with an earlier judgment of the courts of the State of New York; or

(vii) if enforcement proceedings are not instituted in Ireland within six years of the date of the judgment of the courts of the State of New York.

TAXATION

Certain Material U.S. Federal Income Tax Considerations

The following is a discussion of the material U.S. federal income tax considerations applicable to the acquisition, ownership and disposition of Notes. This discussion is based on the United States Internal Revenue Code of 1986, as amended (the "Code"), the final, temporary and proposed Treasury regulations promulgated thereunder, judicial decisions and administrative pronouncements, all as in effect on the date hereof and all of which are subject to change, possibly with retroactive effect. Unless otherwise indicated, this summary deals only with Holders who purchase the Notes upon their initial issuance at their "issue price" (i.e., the first price at which a substantial amount of the issue is sold to purchasers other than bond houses, brokers or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers) for cash and that will hold the Notes as capital assets for U.S. federal income tax purposes (generally, property held for investment). The discussion does not cover all aspects of U.S. federal income taxation that may be relevant to, or the actual tax effect that any of the matters described herein will have on, the acquisition, ownership or disposition of Notes by particular investors, and does not address state, local, non-U.S. (except as provided in this offering memorandum) or other U.S. federal tax laws. In particular, this summary does not discuss all of the tax considerations that may be relevant to certain types of investors subject to special treatment under the U.S. federal income tax laws (such as financial institutions, insurance companies, investors liable for the alternative minimum tax, individual retirement accounts and other tax-deferred accounts, tax-exempt organizations, dealers in securities or currencies, investors that will hold the Notes as part of straddles, hedging transactions or conversion transactions for U.S. federal income tax purposes, U.S Holders (defined below) whose functional currency is not the U.S. dollar or accrual method taxpayers that are required to recognize income for U.S. federal income tax purposes no later than when such income is taken into account in the taxpayer's applicable financial statements under Section 451 of the Code).

There is no assurance that the Internal Revenue Service ("IRS") will not disagree with any of the conclusions discussed herein, and the Issuer has not obtained, and does intend to obtain, a ruling from the IRS with respect to the matters discussed herein.

As used herein, the term "U.S. Holder" means a beneficial owner of Notes that is, for U.S. federal income tax purposes, (i) an individual who is a citizen or resident of the United States, (ii) a corporation (or any other entity treated as a corporation) created or organized under the laws of the United States, any State thereof or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income tax without regard to its source or (iv) a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust (or for certain trusts formed prior to August 20, 1996, if such trust has a valid election in effect under U.S. law to be treated as a United States person).

The U.S. federal income tax treatment of a partner in a partnership (or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) that holds Notes will depend on the status of the partner and the activities of the partnership (or other such entity). Prospective purchasers that are partnerships (or entities or arrangements treated as partnerships for U.S. federal income tax purposes) should consult their own tax advisors concerning the U.S. federal income tax consequences to their partners of the acquisition, ownership and disposition of Notes by the partnership.

THE SUMMARY OF U.S. FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. ALL PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE NOTES, INCLUDING THE APPLICABILITY AND EFFECT OF STATE, LOCAL, NON-U.S. AND OTHER FEDERAL TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.

Characterization of the Notes

In certain circumstances (see, "Description of Notes"), the Issuer may be obligated to pay amounts on the Notes that are in excess of stated interest or principal on the Notes. Although the issue is not free from doubt, the Issuer intends to take the position that the possibility of such payments does not result in the Notes being treated as contingent payment debt instruments under the applicable Treasury regulations. The Issuer's position is binding on a U.S. Holder unless such U.S. Holder discloses its contrary position in the manner required by applicable Treasury regulations. However, the Issuer's position is not binding on the IRS, and if the IRS were to take a contrary position, U.S. Holders may be required to treat any gain

recognized on the sale or other disposition of the Notes as ordinary income rather than as capital gain. Furthermore, U.S. Holders would be required to accrue interest income on a constant yield basis at an assumed yield determined at the time of issuance of the Notes, with adjustments to such accruals when any contingent payments are made that differ from the payments calculated based on the assumed yield. U.S. Holders are urged to consult their own tax advisors regarding the potential application to the Notes of the contingent payment debt instrument rules and the consequences thereof. The remainder of this discussion assumes that the Notes will not be treated as contingent payment debt instruments.

Payments of Interest

It is expected, and this discussion assumes, that either the issue price of the Notes will equal the stated principal amount of the Notes or the Notes will be issued with less than a de minimis amount of original issue discount for U.S. federal income tax purposes. Accordingly, payments of stated interest on the Notes, including any additional amounts and non-U.S. tax withheld on such payments, if any, will be taxable to a U.S. Holder as ordinary income at the time they are received or accrued in accordance with the U.S. Holder's method of accounting for tax purposes.

Interest received by a U.S. Holder will be treated as foreign source income and, for purposes of calculating that U.S. Holder's foreign tax credit limitation, generally will be considered passive category income. The limitation on foreign taxes eligible for the U.S. foreign tax credit is calculated separately with respect to specific classes of income. The rules governing foreign tax credits are complex and, therefore, U.S. Holders should consult their own tax advisors regarding the availability of foreign tax credits in their particular circumstances.

The amount of interest income recognized by a U.S. Holder that uses the cash basis method of accounting for U.S. federal income tax purposes will be the U.S. dollar value of the euro interest payment, based on the exchange rate in effect on the date of receipt of such interest payment, regardless of whether the payment is, in fact, converted into U.S. dollars. A U.S. Holder that uses the cash basis method of accounting for U.S. federal income tax purposes will not realize foreign currency exchange gain or loss on the receipt of stated interest income but may recognize exchange gain or loss attributable to the actual disposition of the euro received.

A U.S. Holder that uses the accrual basis method of accounting for U.S. federal income tax purposes may determine the amount of income recognized with respect to an interest payment denominated in euros using either of two methods. Under the first method, the amount of income accrued will be based on the average exchange rate in effect during the interest accrual period (or, in the case of an interest accrual period that spans two taxable years, the average exchange rate for the portion of such period within the taxable year). Under the second method, a U.S. Holder may elect to determine the amount of income accrued on the basis of the exchange rate on the last day of the accrual period (or, in the case of an interest accrual period that spans two taxable years, the exchange rate that is in effect on the last day of the part of such period within the taxable year). Additionally, if a payment of interest is actually received within five business days of the last day of an interest accrual period, a U.S. Holder using the accrual method of accounting for U.S. federal income tax purposes, which elected to use the second method, may instead translate the accrued interest into U.S. dollars at the exchange rate in effect on the day the payment is received. If a U.S. Holder elects the second method, the U.S. Holder must apply it consistently to all debt instruments held by such U.S. Holder at the beginning of the first taxable year to which the election applies and any debt instruments thereafter acquired by the U.S. Holder, and the U.S. Holder cannot revoke the election without the consent of the IRS. U.S. Holders should consult their own advisers as to the effect of such an election in their individual circumstances. A U.S. Holder that uses the accrual basis method of accounting for U.S. federal income tax purposes will recognize foreign currency exchange gain or loss with respect to accrued euro denominated stated interest income on the date the interest payment is actually received. The amount of foreign currency exchange gain or loss recognized will equal the difference, if any, between the U.S. dollar value of the interest payment received (determined based on the exchange rate on the date the payment is received) in respect of the accrual period and the U.S. dollar value of stated interest income that has accrued during the accrual period (as determined above), regardless of whether the payment is, in fact, converted to U.S. dollars.

Sale, Retirement, Redemption or other Disposition of the Notes

A U.S. Holder will generally recognize taxable gain or loss on the sale, retirement, redemption or other disposition of a Note equal to the difference between the amount realized upon the disposition and the

U.S. Holder's basis in the Note. A U.S. Holder's basis in the Note will generally be the U.S. dollar cost (as defined below) of the Note. The amount realized does not include the amount attributable to accrued but unpaid interest not previously included in income, which will be treated like a payment of interest as described above. Gain or loss that a U.S. Holder recognizes upon the taxable disposition of a Note generally will be capital gain or loss and will be long term capital gain or loss if, at the time of disposition, the U.S. Holder's holding period for the Note is more than one year. Long term capital gains of non-corporate taxpayers are generally subject to reduced rates of federal income taxation. The deductibility of capital losses by U.S. Holders is subject to limitations. Gain recognized by a U.S. Holder from the disposition of the Notes generally will be treated as U.S. source income for foreign tax credit purposes.

The U.S. dollar cost of a Note purchased with euros generally will be the U.S. dollar value of such euros on the date the U.S. Holder purchased the Note or, if the Notes are treated as traded on an established securities market and the U.S. Holder uses the cash basis method of accounting (or a U.S. Holder that uses the accrual basis method of accounting and so elects), the settlement date of the purchase of such Note. The amount realized on a sale, retirement, redemption or other disposition of a Note for an amount in euros will be the U.S. dollar value of this amount on the date of such disposition, or, if the Notes are treated as traded on an established securities market and the U.S. Holder uses the cash basis method of accounting (or a U.S. Holder that uses the accrual basis method of accounting and so elects), the settlement date for such sale, retirement, redemption, or other disposition. A U.S. Holder that uses the accrual basis method of accounting and makes the election described in this paragraph must apply the election consistently to all debt instruments held by such U.S. Holder at the beginning of the first taxable year to which the election applies and any debt instruments thereafter acquired by such U.S. Holder, and the U.S. Holder cannot revoke the election without the consent of the IRS. If Notes held by a U.S. Holder that uses the accrual basis method of accounting are not treated as traded on an established securities market for these purposes (or, if a Note is so traded but the U.S. Holder has not made the settlement date election described above), the U.S. Holder will recognize foreign currency gain or loss, recognized as ordinary gain or loss, to the extent that the U.S. dollar value of the euros received on the settlement date differs from the U.S. dollar value of the amount realized on the date of the disposition. Gain or loss realized upon the sale, retirement, redemption or other disposition of a Note that is attributable to fluctuations in currency exchange rates will be ordinary income or loss not treated as interest income or expense and generally will be U.S. source gain or loss. Gain or loss attributable to fluctuations in currency exchange rates generally will equal the difference, if any, between (i) the U.S. dollar value of the purchase price for the Note in euros, determined at the exchange rate on the date the Note is disposed of, and (ii) the U.S. dollar value of the purchase price for the Note in euros, determined at the exchange rate on the date the Note was acquired. Any foreign currency exchange gain or loss (including with respect to accrued interest) will be recognized only to the extent of the total gain or loss realized by such U.S. Holder on the redemption, sale or other taxable disposition of the Note.

Foreign Currency Loss

In general, any foreign currency loss claimed by a U.S. Holder from a sale, retirement, redemption or other disposition of a Note or foreign currency received in respect of such Note will be treated as a "reportable transaction" for U.S. federal income tax purposes to the extent that the amount of the loss equals or exceeds certain threshold amounts. U.S. Holders should consult their own tax advisors concerning the application of the reportable transaction regulations to their investment in the Notes, including any requirement to file IRS Form 8886 with their tax return.

Disposition of Foreign Currency

If a U.S. Holder receives euros as interest on a Note, or on the sale, retirement, redemption or other disposition of a Note, the U.S. Holder's tax basis in the euros will equal the U.S. dollar value of such euros when the interest is received or at the time of the sale, exchange, redemption, retirement or other disposition of a Note. If the U.S. Holder exchanges such euros received into U.S. dollars, or sells or otherwise disposes of such euros received in a taxable transaction, including the use of such euros to purchase other property (including Notes or other securities denominated in euros), any gain or loss recognized generally will be ordinary gain or loss.

Medicare Contribution Tax on Unearned Income

An additional 3.8% tax is imposed on the "net investment income" of certain U.S. Holders who are citizens and resident aliens, and on the undistributed "net investment income" of certain estates and trusts. Among other items, "net investment income" generally includes interest on the Notes and certain net gain from the sale, retirement, redemption or other taxable disposition of the Notes, less certain deductions.

Information Reporting and Backup Withholding

Payments of principal and interest on and the proceeds from the sale, retirement, redemption or other taxable disposition (including exchange) of Notes by a U.S. paying agent or other U.S. intermediary will be reported to the IRS and to the U.S. Holder as may be required under applicable Treasury regulations. Backup withholding may apply to these payments if the U.S. Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to report all interest required to be shown on its U.S. federal income tax returns. U.S. Holders should consult their own tax advisors as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption. The amount of any backup withholding imposed will be allowed as a credit against any U.S. federal income tax liability of a U.S. Holder and may entitle the U.S. Holder to a refund, provided the required information is timely furnished to the U.S. Internal Revenue Service.

U.S. Holders should consult their own tax advisors regarding whether they have any filing or reporting requirements as a result of acquiring, owning or disposing of Notes.

Disclosure of Information with Respect to Foreign Financial Assets

Certain U.S. persons who hold any interest in "specified foreign financial assets", including the Notes, during the relevant taxable year must attach to their U.S. tax return for such year certain information with respect to each such asset if the aggregate value of all such assets exceeds $50,000 (or a higher dollar amount prescribed by the IRS), unless such Notes are held in an account maintained by a U.S. payer, such as a U.S. financial institution or the U.S. branch of a foreign bank or insurer. For this purpose, a "specified foreign financial asset" includes any depositary, custodial or other financial account maintained by a foreign financial institution, and certain assets that are not held in an account maintained by a financial institution, including any stock or security issued by a person other than a U.S. person. A taxpayer subject to these rules who fails to furnish the required information may be subject to a penalty of $10,000, and an additional penalty may apply if the failure continues for more than 90 days after the taxpayer is notified of such failure by the IRS, unless the taxpayer demonstrates a reasonable cause for such failure to comply. An accuracy-related penalty of 40% is imposed for an underpayment of tax that is attributable to an "undisclosed foreign financial asset understatement", which, for this purpose, is the portion of the understatement of gross income for any taxable year that is attributable to any transaction involving an "undisclosed foreign financial asset", including any asset that is subject to information reporting requirements under these rules, which would include the Notes if the dollar threshold described above were satisfied.

The applicable statute of limitations for assessment of U.S. federal income taxes is extended to six years if a taxpayer omits from gross income more than $5,000 and such omission is attributable to a foreign financial asset as to which reporting is required under the rules described in the preceding paragraph or would be so required if such rules were applied without regard to the dollar threshold or any other exceptions specified by the IRS. In addition, the statute of limitations will be suspended if a taxpayer fails to provide in a timely manner information with respect to specified foreign financial assets required to be reported. U.S. Holders should consult their tax advisors regarding disclosure of information requirements relating to their ownership of the Notes.

Non-U.S. Holders

A "Non-U.S. Holder" is a beneficial owner of a Note that is not a U.S. Holder. In general, payments on the Notes to a Non-U.S. Holder will not be subject to U.S. federal income or withholding tax. A Non-U.S. Holder's net income from the Notes also will not be subject to U.S. federal income taxation unless the income is effectively connected with such Non-U.S. Holder's conduct of a U.S. trade or business. Gain realized by a Non-U.S. Holder on its disposition of the Notes will not be subject to U.S. federal income tax unless (1) the gain is effectively connected with the Non-U.S. Holder's conduct of a U.S. trade or business or (2) the Non-U.S. Holder is an individual who is present in the United States for at least 183 days during the taxable year of disposition and certain other conditions are met. In addition, if such Non-U.S. Holder is

a non-U.S. corporation, such interest or gain may be subject to a branch profits tax at a rate of 30% (or such lower rate as is provided by an applicable income tax treaty).

Spanish Taxation

The following is a general description of certain Spanish tax considerations relating to the Notes. The information provided below does not purport to be a complete overview of tax law and practice currently applicable in the Kingdom of Spain and is subject to any changes in the law, its interpretation and application, possibly with retroactive effect.

This taxation summary solely addresses the principal Spanish tax consequences, under the general taxation regime, deriving from the acquisition, the ownership and disposal of Notes issued by the Issuer after the date hereof and held by a holder of Notes. It is not intended to consider every aspect of taxation that may be relevant to a particular holder of Notes; in particular it is not intended to cover special circumstances or special tax treatments applicable to specific categories of investors or available under applicable law or the application of special tax regimes by reason of territory, such as those in the Basque Country and Navarra. Where in this summary English terms and expressions are used to refer to Spanish concepts, the meaning of such terms and expressions shall be the meaning corresponding to the equivalent Spanish concepts under Spanish tax law. This summary assumes that each transaction with respect of the Notes is at arm's length and that the Notes will be admitted to trading on the Global Exchange Market of Euronext Dublin.

This overview is based on the law in effect on the date of this document and is subject to any change in law that may take effect after such date. References in this section to holders of Notes include the beneficial owners of Notes, where applicable. Any prospective investors should consult their own tax advisers who can provide them with personalized advice based on their particular circumstances. Likewise, investors should consider the legislative changes which may occur in the future.

Introduction

This information has been prepared in accordance with the following Spanish tax legislation, all as currently in effect and all subject to change at any time, possibly with retroactive effect:

(a) of general application, Additional Provision One of Law 10/2014, of June 26, 2014 on the management, supervision and solvency of credit institutions (the "Law 10/2014"), as well as Royal Decree 1065/2007, of July 27, 2007 establishing information obligations in relation to preferential holdings and other debt instruments (the "Royal Decree 1065/2007");

(b) for individuals with tax residency in Spain who are liable to personal income tax (the "Personal Income Tax" or "PIT"), Law 35/2006, of November 28, 2006 on Personal Income Tax and on the partial amendment of the Corporate Income Tax Law, Non Residents Income Tax Law and Wealth Tax law (the "Personal Income Tax Law"), and the Royal Decree 439/2007, of March 30, 2007 promulgating the Personal Income Tax Regulations, along with Law 19/1991, of June 6, 1991 on Wealth Tax and Law 29/1987, of December 18, 1987 on Inheritance and Gift Tax;

(c) for legal entities resident for tax purposes in Spain which are liable to corporate income tax (the "Corporate Income Tax" or "CIT"), Law 27/2014, of November 27, 2014 on Corporate Income Tax Law, and Royal Decree 634/2015, of July 10, 2015 promulgating the Corporate Income Tax Regulations (the "Corporate Income Tax Regulations"); and

(d) for individuals and legal entities who are not resident for tax purposes in Spain and are liable to non-resident income tax (the "Non-Resident Income Tax" or "NRIT"), Royal Legislative Decree 5/2004, of March 5, 2004 promulgating the Consolidated Text of the Non-Resident Income Tax Law, and Royal Decree 1776/2004, of July 30, 2004 promulgating the Non-Resident Income Tax Regulations, along with Law 19/1991, of June 6, 1991 on Wealth Tax and Law 29/1987, of December 18, 1987 on Inheritance and Gift Tax.

Whatever the nature and residence of the beneficial owner, the acquisition and transfer of the Notes will be exempt from indirect taxes in Spain, i.e., exempt from Transfer Tax and Stamp Duty, in accordance with the Consolidated Text of such tax promulgated by Royal Legislative Decree 1/1993, of September 24, 1993 and exempt from Value Added Tax, in accordance with Law 37/1992, of December 28, 1992 regulating such tax.

Individuals with Tax Residency in Spain

Personal Income Tax (*Impuesto sobre la Renta de las Personas Físicas*)

Spanish individuals with tax residency in Spain are subject to PIT on a worldwide basis. Accordingly, income obtained from the Notes will be taxed in Spain when obtained by persons that are considered resident in Spain for tax purposes.

Both interest payments periodically received and income derived from the transfer, redemption or exchange of the Notes constitute a return on investment obtained from the transfer of a person's own capital to third parties in accordance with the provisions of Section 25 of the PIT Law, and therefore must be included in the investor's PIT savings taxable base pursuant to the provisions of the aforementioned law and taxed at the applicable rate (the savings base is currently subject to a rate of 19 percent. on the first €6,000, 21 percent. for taxable income between €6,001 and €50,000, and 23 percent. for taxable income exceeding €50,000).

As a general rule, both types of income are subject to a withholding tax on account at the rate of 19 percent. However, according to Section 44.5 of Royal Decree 1065/2007, of July 27, 2007, in the case of debt listed securities issued under Law 10/2014 and initially registered in a foreign clearing and settlement entity that is recognized under Spanish regulations or under those of another OECD member state (as the Notes issued by Issuer), the Issuer will make interest payments to individual holders who are resident for tax purposes in Spain without withholding provided that certain formalities to be complied with by the paying agent described below (see section "—Disclosure of Information in Connection with the Notes") are met in a timely manner. It is not necessary to provide the Issuer with the identity of the holders of Notes who are individuals resident in Spain for tax purposes or to indicate the amount of income attributable to such individuals.

Therefore, the Issuer understands that, according to Royal Decree 1065/2007, it has no obligation to withhold any tax amount for interest paid on the Notes corresponding to the holders of Notes who are individuals with tax residency in Spain provided that the information procedures (which do not require identification of the holders of Notes) are complied with.

Nevertheless, Spanish withholding tax at the applicable rate (currently, 19%) may have to be deducted by other entities (such as depositaries or financial entities), provided that such entities are resident for tax purposes in Spain or have a permanent establishment in the Spanish territory. The amounts withheld, if any, may be credited by the relevant investors against their final PIT liability.

Net Wealth Tax (*Impuesto sobre el Patrimonio*)

Net Wealth Tax may be levied in Spain on resident individuals, on a worldwide basis. Though for the years 2011 to 2019 the Spanish Central Government has repealed the 100% relief of this tax, the actual collection of this tax depends on the regulations of each Autonomous Community. Thus, investors should consult their tax advisers according to the particulars of their situation.

Individuals with tax residency in Spain are subject to Net Wealth Tax to the extent that their net worth exceeds a certain limit, currently set at €700,000. Therefore, they should take into account the value of the Notes which they hold as of December 31 each year. The rates currently applicable range between 0.2 percent and 2.5 percent.

In accordance with Article 43 of the Royal Decree-Law 27/2018, of December 20, 2018, a full exemption on Net Wealth Tax will apply (*bonificación del 100%*) on Net Wealth Tax as of the year 2020, relieving taxpayers from formal and filing obligations in relation to this tax unless such exemption is revoked.

Inheritance and Gift Tax (*Impuesto sobre Sucesiones y Donaciones*)

Individuals resident in Spain for tax purposes who acquire ownership or other rights over any Notes by inheritance, gift or legacy will be subject to the Spanish Inheritance and Gift Tax in accordance with the applicable Spanish regional and State rules. The applicable effective tax rates currently ranges between 0 percent and 81.6 percent, depending on relevant factors (such as previous net wealth or degree of kinship with transferor).

Legal Entities with Tax Residency in Spain

Corporate Income Tax (*Impuesto sobre Sociedades*)

Legal entities with tax residency in Spain are subject to CIT on a worldwide basis. Both interest received periodically and income derived from the transfer, redemption or repayment of the Notes are subject to CIT (at the current general tax rate of 25 percent) in accordance with the rules for this tax.

Pursuant to Section 61.s of the Corporate Tax Regulations, there is no obligation to make a withholding on income obtained by taxpayers subject to Spanish CIT (which for the avoidance of doubt, include Spanish tax resident investment funds and Spanish tax resident pension funds) from financial assets traded on organized markets in OECD countries. However, in the case of Notes held by a Spanish resident entity and deposited with a Spanish resident entity acting as depositary or custodian, payments of interest and income deriving from the transfer may be subject to withholding tax at the current rate of 19 percent. Such withholding may be made by the depositary or custodian if the Notes do not comply with the exemption requirements specified in the ruling issued by the Spanish General Directorate of Taxes (*Dirección General de Tributos*) (the "DGT") dated July 27, 2004 (that is, placement of the Notes outside of Spain in another OECD country and admission to listing of the Notes on an organized market in an OECD country other than Spain). The amounts withheld, if any, may be credited by the relevant investors against their final CIT liability.

Notwithstanding the above, according to Royal Decree 1065/2007, in the case of listed debt instruments issued under Law 10/2014 and initially registered in a foreign clearing and settlement entity that is recognized under Spanish regulations or under those of another OECD member state (such as the Notes issued by the Issuer), no withholding on account of CIT will be imposed on interest or on income derived from the Notes, by Spanish CIT taxpayers, provided that certain formalities are complied with by the paying agent described in section "—Disclosure of Information in Connection with the Notes" below in a timely manner.

Therefore, the Issuer considers that, pursuant to Royal Decree 1065/2007, it has no obligation to withhold any tax on interest paid on the Notes in respect of holders who are liable to Spanish Corporate Income Tax, provided that the information procedures are complied with.

Net Wealth Tax (*Impuesto sobre el Patrimonio*)

Legal entities resident in Spain for tax purposes are not subject to Net Wealth Tax.Inheritance and Gift Tax (*Impuesto sobre Sucesiones y Donaciones*)

Legal entities resident in Spain for tax purposes which acquire ownership or other rights over the Notes by inheritance, gift or legacy are not subject to the Spanish Inheritance and Gift Tax but must include the market value of the Notes in their taxable income for Spanish CIT purposes.

Individuals and Legal Entities with no Tax Residency in Spain

Non-Resident Income Tax (*Impuesto sobre la Renta de no Residentes*)

(a) With permanent establishment in Spain

Should the Notes be part of the assets of a permanent establishment in Spain belonging to a person or legal entity who is not resident in Spain for tax purposes, the tax rules applicable to income deriving from such Notes are, generally, the same as those previously set out for Spanish CIT taxpayers. See "—Legal Entities with Tax Residency in Spain—Corporate Income Tax (*Impuesto sobre Sociedades*)". Ownership of the Notes by investors who are not resident for tax purposes in Spain will not in itself create the existence of a permanent establishment in Spain.

(b) With no permanent establishment in Spain

Both interest payments periodically received and income deriving from the transfer, redemption or repayment of the Notes, obtained by individuals or legal entities who are not residents of Spain for tax purposes and do not act, with respect to the Notes, through a permanent establishment in Spain, are exempt from such Non-Resident Income Tax on the same terms laid down for income from Public Debt.

In order for such exemption to apply, it is necessary to comply with the information procedures, in the manner detailed under "—Disclosure of Information in Connection with the Notes" as set out in section 44 of Royal Decree 1065/2007 (as amended by Royal Decree 1145/2011).

Investors who are not residents of Spain for tax purposes and entitled to an exemption from Non-Resident Income Tax but, in respect of whose Notes, have not received the information referred to in "—Disclosure of Information in Connection with the Notes" in a timely manner, would have to apply directly to the Spanish tax authorities for any refund to which they may be entitled, in accordance with the procedures set forth in the Spanish NRIT Law.

Net Wealth Tax *(Impuesto sobre el Patrimonio*)

Provided that income derived from the Notes is exempt from NRIT, individual, non-residents of Spain for tax purposes and holding notes on the last day of the calendar year, will be exempt from Net Wealth Tax. Moreover, individuals resident in a country with which Spain has entered into a double tax treaty in relation to Net Wealth Tax would generally not be subject to such tax.

Otherwise, non-Spanish resident individuals whose properties and rights are located in Spain, or can be exercised in Spain and are in excess of a certain limit, currently set at €700,000 would be subject to Net Wealth Tax. In such event, they should take into account the value of the Notes of which they hold on December 31 each year, the applicable rates ranging between 0.2 percent and 2.5 percent.

Holders of Notes that are tax resident in a State of the European Union or of the European Economic Area are entitled to apply the specific regulation of the autonomous community where their most valuable assets are located and which trigger this Spanish Net Wealth Tax due to the fact that they are located or are to be exercised within the Spanish territory.

In accordance with Article 43 of the Royal Decree-Law 27/2018, of December 20, 2018, a full exemption on Net Wealth Tax will apply (*bonificación del 100%*) on Net Wealth Tax as of the year 2020, relieving taxpayers from formal and filing obligations in relation to this tax unless such exemption is revoked.

Legal entities that do not reside in Spain for Spanish tax purposes are not subject to Net Wealth Tax.

Inheritance and Gift Tax (*Impuesto sobre Sucesiones y Donaciones*)

Unless otherwise provided under an applicable double tax treaty in relation to Inheritance and Gift Tax, such tax may be levied in Spain on non-resident individuals only on those assets and rights that are located or that may be exercised or fulfilled within the Spanish territory. The effective tax rate, after applying all relevant factors, ranges between 0 percent and 81.6 percent.

Generally, non-Spanish tax resident individuals are subject to Spanish Inheritance and Gift Tax according to the common rules applicable nationally. However, should the deceased or the donee be resident in an EU or European Economic Area member State, the applicable rules will be those corresponding to the relevant autonomous regions according to the law.

Non-Spanish resident corporations are not liable to the Spanish Inheritance and Gift Tax and income inherited or obtained by gift (*a título lucrativo*) will generally be subject to NRIT as capital gains, unless otherwise provided under an applicable double tax treaty.

Obligation to inform the Spanish tax authorities of the ownership of the Notes

With effect from January 1, 2013, Law 7/2012, of October 29, 2012, as implemented by Royal Decree 1558/2012, of November 15, 2012 introduced annual reporting obligations applicable to Spanish residents (i.e. individuals, legal entities, permanent establishments in Spain of non-resident entities) in relation to certain foreign assets or rights.

Consequently, if the Notes are deposited with or placed in the custody of a non-Spanish entity, holders of Notes resident in Spain will be obliged, if certain thresholds are met as described below, to file a return before the Spanish Tax Authorities, between January 1 and March 31 every year, declaring the ownership of the Notes held on December 31 of the immediately preceding year (e.g. the Notes held on December 31, 2019 should be included in a filing made between January 1, 2020 and March 31, 2020).

This obligation would only need to be complied with where certain thresholds are met. Currently, the thresholds would be as follows: specifically, where the only rights and assets held abroad are the Notes, this obligation would only apply, should the value of the Notes together with other qualifying assets held on December 31, exceed €50,000 (the corresponding valuation should be made in accordance with Wealth Tax rules). Should this threshold be met, the filing would only be required in subsequent years where the value of the Notes together with other qualifying assets increases by more than €20,000 as compared with the previous filing. Similarly, cancellation or extinguishment of the ownership of the Notes before

December 31, of the relevant year should be included in such filing, provided the ownership was included in previous filings.

Disclosure of Information in Connection with the Notes

According to Additional Provision One of Law 10/2014, the Issuer is subject to certain reporting obligations in relation to the Notes.

In accordance with section 5 of Article 44 of RD 1065/2007 as amended by RD 1145/2011, and provided that the Notes issued by the Issuer are initially registered for clearance and settlement in Euroclear and Clearstream, the paying agent would be obliged to provide the Issuer with a declaration (the form of which is set out in the Annex to the RD 1065/2007), which should include the following information:

(i) description of the Notes (and date of payment of the interest income derived from such Notes);

(ii) total amount of the relevant payment derived from the Notes; and

(iii) total amount of the relevant payment allocated to each non-Spanish clearing and settlement entity involved.

According to section 6 of Article 44 of RD 1065/2007, the relevant declaration will have to be provided to the Issuer on the business day immediately preceding any payment of interest, principal or any amounts in respect of the early redemption of the Notes. If this requirement is complied with, the Issuer will pay gross (without deduction of any withholding tax) all payments under the Notes to all holders (irrespective of whether they are tax resident in Spain).

Should the paying agent fail to provide the information detailed above, according to section 7 of Article 44 of RD 1065/2007, the Issuer, or the paying agent acting on its behalf, could be required to withhold tax from the relevant payments at the general withholding tax rate (currently, 19 percent). If on or before the 10th calendar day of the month following the month in which the relevant payment has been made, the paying agent were to submit such information, the Issuer, or the paying agent acting on its behalf, would refund the total amount of taxes withheld.

Notwithstanding the above, the Issuer has agreed that in the event that withholding tax were required by law, the Issuer, would pay such additional amounts as may be necessary such that a holder of Notes would receive the same amount that he would have received in the absence of any such withholding or deduction, except as provided in "Description of Notes".

In the event that the current applicable procedures were to be modified, amended or supplemented by, amongst others, a Spanish law, regulation, interpretation or ruling of the Spanish Tax Authorities, the Issuer would inform the holders of Notes of such changes to the information procedures and of their implications, as the Issuer may be required to apply withholding tax on interest payments under the Notes, should the holders of Notes not comply with such information procedures.

The Proposed Financial Transactions Tax

On February 14, 2013, the European Commission published a proposal, (*the Commission's Proposal*), for a Directive for a common Proposed Financial Transactions Tax, or FTT, in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia, (the Participating Member States). However, Estonia has since stated that it will not participate.

The Commission's Proposal has a broad scope and could, if introduced, apply to certain dealings in Notes (including secondary market transactions) in certain circumstances. The issuance and subscription of Notes should, however, be exempt. Under the Commission's Proposal, the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in Notes where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, "established" in a participating Member State in a broad range of circumstances, including (a) by transacting with a person established in a participating Member State or (b) where the financial instrument that is subject to the dealings is issued in a participating Member State.

However, the FTT proposal remains subject to negotiation between participating Member States. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate. Prospective holders of Notes are advised to seek their own professional advice in relation to the FTT.

LISTING AND GENERAL INFORMATION

Listing on Euronext Dublin

This offering memorandum comprises "Listing Particulars" for the purpose of the application to Euronext Dublin for the listing of the Notes. Application has been made to Euronext Dublin for the approval of these "Listing Particulars". Application has also been made to Euronext Dublin for the Notes to be admitted to the Official List and to be traded on the Global Exchange Market of Euronext Dublin. There can be no assurance that we will be able to effect such admission of the Notes to trading on the Global Exchange Market of Euronext Dublin.

As long as any of the Notes remain outstanding and listed on the official list of Euronext Dublin, copies of this offering memorandum will be made available for inspection by physical means at our office located at Grange Castle Business Park, Grange Castle, Clandalkin, Dublin 22, Ireland.

In addition, for as long as the Notes remain listed on the official list of Euronext Dublin, copies of the following documents will be made available for inspection by physical means at our office located at Grange Castle Business Park, Grange Caste, Clandalkin, Dublin 22, Ireland:

- the memorandum and articles of association of the Issuer and the incorporation documentation of each of the Guarantors;
- the Indenture;
- the Notes and the Guarantees;
- English translations of the two most recent audited consolidated annual accounts, and any interim financial statements published by us; and
- any other material documents relating to the listing.

The total expenses related to the admission of the Notes on the official list of Euronext Dublin and to trading on the Global Exchange Market of Euronext Dublin are expected to be approximately €5,000.

As of the date of this offering memorandum, our most recent available audited consolidated annual accounts were as of and for the year ended December 31, 2018. Except as disclosed in this offering memorandum, as of the date of this offering memorandum there has been no significant adverse change in our consolidated financial condition or trading position since December 31, 2018. Except as disclosed in this offering memorandum, as of the date of this offering memorandum, there has been no material adverse change in our prospects since December 31, 2018. There has been no material adverse change in the prospects of the Guarantors since December 31, 2018, except as otherwise stated in this offering memorandum.

Clearing Information

The Notes have been, or will be, accepted for clearance through the facilities of Euroclear and Clearstream. Certain trading information with respect to the Notes is set forth below.

	ISIN	Common Code
2025 Rule 144A Global Notes	XS2076836639	207683663
2025 Regulation S Global Notes	XS2076836555	207683655
2027 Rule 144A Global Notes	XS2077647365	207764736
2027 Regulation S Global Notes	XS2077646391	207764639

Issuer and Guarantor Information

The Issuer

The Issuer was incorporated in Spain in 1987 under the name Grupo Grifols, S.A. and changed its name to Grifols, S.A. in 2005. Its registration number is Registro Mercantil de Barcelona folio 87, tomo 11,561, hoja n° B-92.799. The Issuer's principal executive offices are located at Avinguda de la Generalitat, 152 158, Parc de Negocis Can Sant Joan, Sant Cugat del Vallès, 08174, Barcelona, Spain. The Issuer carries on the business of manufacturing and selling plasma derivative products.

The directors and secretary of the Issuer are as follows:

Name	Title
Víctor Grifols Roura	Director, non-executive Chairman of the Board
Víctor Grifols Deu	Director and Chief Executive Officer
Raimon Grifols Roura	Director and Chief Executive Officer
Ramón Riera Roca	Director
Tomás Dagá Gelabert	Director
Thomas H. Glanzmann	Director, Vice-chairman of the Board of Directors
Enriqueta Felip Font	Director
Luís Isasi Fernández de Bobadilla	Director
Steven Francis Mayer	Director
Belén Villalonga Morenés	Director
Marla E. Salmon	Director
Carina Szpilka Lázaro	Director
Iñigo Sánchez-Asiaín Mardones	Director and Lead Independent Director
Nuria Martín Barnés	Secretary non-member

The business address of the board of directors is the registered address of the Issuer.

Guarantors

The Notes are guaranteed on a senior unsecured basis by the wholly-owned subsidiaries of Grifols, S.A. that are guarantors and co-borrowers under the New Credit Facilities. As of the date of this offering memorandum, the Notes are guaranteed by Grifols Worldwide Operations Limited, Biomat USA, Inc., Grifols Biologicals LLC, Grifols Shared Services North America, Inc., Grifols Therapeutics LLC, Instituto Grifols, S.A., Grifols International S.A., Talecris Plasma Resources Inc., Grifols Worldwide Operations USA, Inc. and Grifols USA, LLC.

The registered office and principal address for Grifols Worldwide Operations Limited (formerly known as Grifols Worldwide Warehouse and Operations Limited) is Grange Castle Business Park, Grange Castle, Clondalkin, Dublin 22, Ireland. Grifols Worldwide Operations Limited is a company incorporated under the laws of Ireland on November 8, 2012, with registration number 519799, and it is a private limited company that carries on the business of packaging, labeling, quality, warehousing, distribution, research and development, final release and sale of pharmaceutical products and the provision of financial services to group companies in relation thereto. The registered office and principal address of Biomat USA, Inc. is 2410 Lillyvale Avenue, Los Angeles, California, United States. Biomat USA, Inc. is a corporation incorporated under the laws of the State of Delaware on October 1, 1991 and it is a company involved in the procurement of plasma and holds many of our plasma collection centers. The registered office and principal address of Grifols Biologicals LLC is 5555 Valley Boulevard, Los Angeles, California, United States. Grifols Biologicals LLC is a limited liability company converted from a corporation under the laws of State of Delaware effective December 31, 2017, and it is involved in the production of plasma-derived products. The registered office and principal address of Grifols Shared Services North America, Inc. (formerly known as Grifols Inc.) is 2410 Lillyvale Avenue, Los Angeles, California, United States. Grifols Shared Services North America, Inc. is a corporation incorporated under the laws of State of Virginia on June 14, 2010, and it is a holding company of companies involved in the collection of plasma and the production of plasma-derived products. The registered office and principal address for Instituto Grifols, S.A. is Poligono Levante, Calle Can Guasch s/n, Parets del Vallès, Barcelona, Spain. Instituto Grifols, S.A. is a sociedad anónima incorporated under the laws of the Kingdom of Spain on September 21, 1987, and it is a company involved in the production of plasma-derived products. The registered office and principal address for Grifols International, S.A. is Poligono Levante, calle Can Guasch s/n, Parets del Valles, Barcelona, Spain. Grifols International, S.A. is a company involved in the marketing and commercial sales operations of plasma-derived products. The registered office and principal address for Talecris Plasma Resources, Inc. is 4101 Research Commons, 79 T.W. Alexander Drive, Research Triangle Park, North Carolina, United States. Talecris Plasma Resources, Inc. is a company involved in the procurement of plasma-derived products. The registered office and principal address of Grifols Worldwide Operations USA, Inc. is 13111 Temple Avenue, City of Industry, California, United States. Grifols Worldwide Operations USA, Inc. is a corporation incorporated under the laws of the State of Delaware on January 27, 2014, and it is a company that is involved with the manufacture, warehousing

and logistical support for biological products. The registered office and principal address for Grifols Therapeutics LLC is 4101 Research Commons, 79 T.W. Alexander Drive, Research Triangle Park, North Carolina, United States. Grifols Therapeutics LLC is a limited liability company converted from a corporation under the laws of the State of Delaware effective December 1, 2017, and it is a company that is involved in the production of plasma-derived products. The registered office and principal address for Grifols USA, LLC is 2410 Lillyvale Avenue, Los Angeles, California, United States. Grifols USA, LLC is a limited liability company organized under the laws of the state of Florida as the surviving entity pursuant to Articles of Merger filed on December 21, 2005, and it is a company that is involved with the commercial sales operations for the Grifols entities in the United States.

Neither the Issuer nor the Guarantors have been involved in any governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Issuer or the Guarantors are aware) during the 12 months before the date of this offering memorandum which may have, or have had in the recent past, significant effects on the Issuer's or the Guarantors' financial position or profitability.

There are no potential conflicts of interest between the management, administrative and supervisory bodies of the Issuer or any Guarantor and their private interests or other duties.

Entity	Published EBITDA (in millions of Euro)	Percentage of total Published EBITDA	Total Assets (in millions of Euro)	Percentage of Total Assets	Total Liabilities (in millions of Euro)	Percentage of Total Liabilities
Guarantors	988	80.8%	7,481	60.0%	5,514	71.0%
Non-guarantors	302	24.7%	4,822	38.7%	448	5.8%
Issuer	(67)	(5.5)%	174	1.4%	1,819	23.4%
Grifols Worldwide Operations Limited	157	12.8%	2,777	22.3%	2,119	27.2%
Grifols Therapeutics LLC	318	26.0%	3,550	28.5%	321	4.1%

The Published EBITDA, total assets and total liabilities set out in the table above are as of and for the year ended December 31, 2018.

Risk Factors in respect of Grifols Worldwide Operations Limited

Other than the risk factors outlined in "Risk Factors", there are no material risk factors specific to Grifols Worldwide Operations Limited.

Risk Factors in respect of Grifols Therapeutics LLC

Other than the risk factors outlined in "Risk Factors", there are no material risk factors specific to Grifols Therapeutics LLC

Encumbrances on the assets of Grifols Worldwide Operations Limited

Grifols Worldwide Operations Limited has granted certain security interests over (i) all of its inventory and goods consisting of blood and blood plasma (whether finished goods, works in progress or raw materials for such finished goods) and located in the United States, and all books and records pertaining thereto, (ii) certain equity interests in Grifols Worldwide Operations USA, Inc. owned by Grifols Worldwide Operations Limited, and all books and records pertaining thereto and (iii) all proceeds, products, accessions, rents and profits of or in respect of any of the foregoing, pursuant to the following agreements:

1. U.S. Pledge and Security Agreement, dated as of January 31, 2017, in support of the Current Credit Facilities;
2. U.S. Pledge and Security Agreement, dated as of December 5, 2017, in support of the 2015 European Investment Bank Term Loan;
3. U.S. Pledge and Security Agreement, dated as of December 5, 2017, in support of the 2017 European Investment Bank Term Loan; and
4. U.S. Pledge and Security Agreement, dated as of September 7, 2018, in support of the 2018 European Investment Bank Term Loan.

Grifols Worldwide Operations Limited has also granted a first ranking real right of non possessory pledge over certain blood plasma finished goods, pursuant to Spanish law governed deeds of non possessory pledge dated January 31, 2017, December 5, 2017 and September 7, 2018.

Encumbrances on the assets of Grifols Therapeutics LLC

Grifols Therapeutics LLC has granted certain security interests over (i) substantially all of its personal property and (ii) all proceeds, products, accessions, rents and profits of or in respect of any of the foregoing, pursuant to the following agreements:

1. U.S. Pledge and Security Agreement, dated as of January 31, 2017, in support of the Current Credit Facilities;
2. U.S. Pledge and Security Agreement, dated as of December 5, 2017, in support of the 2015 European Investment Bank Term Loan;
3. U.S. Pledge and Security Agreement, dated as of December 5, 2017, in support of the 2017 European Investment Bank Term Loan; and
4. U.S. Pledge and Security Agreement, dated as of September 7, 2018, in support of the 2018 European Investment Bank Term Loan.

Resolutions, Authorizations and Approvals by Virtue of Which the Notes Have Been Issued

The Issuer and the Guarantors have obtained all necessary consents, approvals and authorizations (if any) in connection with the issuance of the Notes. The issuance of the Notes was approved by resolutions of the board of directors of the Issuer passed on October 25, 2019.

LEGAL MATTERS

Certain legal matters in connection with the offering of the Notes will be passed upon for us by Proskauer Rose LLP as to matters of U.S. law, by Osborne Clarke España S.L.P. as to matters of Spanish law, and by Matheson as to matters of Irish law.

Certain legal matters in connection with the offering of the Notes will be passed upon for the initial purchasers by Milbank LLP as to matters of U.S. law.

INDEPENDENT AUDITORS

The original Spanish language consolidated annual accounts of Grifols, S.A. and its subsidiaries as of and for each of the years ended December 31, 2018, 2017 and 2016, English translations of which are included herein, have been audited by KPMG Auditores, S.L., independent auditors, as stated in their reports, English translations of which are included herein. KPMG Auditores, S.L., with its address at Paseo de la Castellana 259 C, 28046 Madrid (Spain), is registered with the Madrid Commercial Register under volume 11,961 and sheet M-188007, and registered with the Official Registry of Accounting Auditors (ROAC) under number S0702.

With respect to the original Spanish language unaudited condensed consolidated interim financial statements as of and for each of the six-month periods ended June 30, 2019 and 2018, English translations of which are included herein, the independent auditors have reported that they applied limited procedures in accordance with professional standards for a review of such information. However, an English translation of their separate report included herein, states that they did not audit and they do not express an opinion on such unaudited condensed consolidated interim financial statements. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied..

MANAGEMENT INTERNAL CONTROL OVER FINANCIAL REPORTING

Management's Report on Internal Control over Financial Reporting

Our management, under the supervision of our Chief Executive Officer and our Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control system is designed to provide reasonable assurance as to the reliability of financial reporting and the preparation of the published financial statements under generally accepted accounting principles. For Grifols, S.A., "generally accepted accounting principles" means IFRS as issued by IASB.

Our internal control over the financial reporting system includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of our Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of our Company are being made only in accordance with authorizations of management and directors of our Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our Company assets that could have a material effect on the financial statements.

Internal control over financial reporting is a process designed by, or under the supervision of, our principal executive and principal financial officers, or persons performing similar functions, and effected by our board of directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS as issued by IASB. Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements will not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

WHERE YOU CAN FIND MORE INFORMATION

Our Class B ADSs are listed on The NASDAQ Global Select Market under the symbol "GRFS". You may read and copy any document we file with or furnish to the SEC at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to the public over the Internet at the SEC's website at *www.sec.gov*.

Our ordinary shares are listed on the Spanish Stock Exchanges and quoted on the Automated Quotation System under the symbol "GRF". You may read copies of our annual and quarterly reports, accounts and other financial information and offering documents at the offices of the CNMV, Paseo de la Castellana, 19, Madrid. Some of our CNMV filings are also available at the website maintained by the Spanish securities commission at www.cnmv.es. You may also access information about us through the website we maintain, which is www.grifols.com. In addition, you can obtain any of these documents at no cost, by writing or calling us at the following address:

Grifols, S.A.

Avinguda de la Generalitat, 152-158
Parc de Negocis Can Sant Joan
08174 Sant Cugat del Vallès, 08174, Barcelona, Spain
Attention: Investor Relations
Telephone: (+34) 935-710-500

"AMP" means the average manufacturer price of certain outpatient drugs covered by Medicaid, as defined under the Medicaid drug rebate program, and is used to help calculate rebates paid by certain drug manufacturers that are shared by the U.S. and state governments.

"Alzheimer's disease" is the most common form of dementia. This incurable, degenerative, and terminal disease was first described by German psychiatrist and neuropathologist Alois Alzheimer in 1906 and was named after him.

"Albumin" is the most abundant blood plasma protein and is produced in the liver and forms a large proportion of all plasma. Albumin normally constitutes about 60% of human plasma. It is important in regulating blood volume by maintaining the oncotic pressure of the blood compartment.

"ASP" means the average sales price of certain outpatient drugs covered by Medicare Part B, and is used to help calculate reimbursement of such drugs.

"Assays" are systems designed to detect antibodies, antigens or the nucleic acid of an infectious agent. For instance, the WNV assay detects the presence of the West Nile virus in blood donations. The main types of assay used for blood screening are Immunoassays and Nucleic acid technology, or NAT assays.

"A1PI" means alpha-1 proteinase inhibitor.

"BLA" (Biologics License Application) is a biological license application issued by the FDA, and serves as a U.S. marketing authorization for certain biological drug products.

"BlisPack" a blister handling machine.

"BLOODchip" blood group genotyping tests manufactured by Progenika, a company in which Grifols has a majority equity interest.

"BP" means the best price, as defined under the Medicaid drug rebate program, and is used to help calculate rebates paid by certain drug manufacturers that are shared by the U.S. and state governments.

"cGMP" means current Good Marketing Practice.

"CIDP" means chronic inflammatory demyelinating polyneuropathy, a neurological disease resulting in weakness, numbness, pain and difficulty in walking.

"Cirrhosis" is a medical condition which is a result of advanced liver disease. It is characterized by the replacement of liver tissue by fibrosis (scar tissue) and regenerative nodules (lumps that occur due to attempted repair of damaged tissue).

"Congenital Alpha-1 Antitrypsin Deficiency" is an inherited disease characterized by reduced levels in the blood of the substance Alpha-1 Antitrypsin, or AAT. This substance is a protein that is normally made by the liver and reaches other organs (such as the lungs) after being released into the blood circulation.

"CMS" refers to the U.S. Centers for Medicare & Medicaid Services.

"CNMV" means the Comisión Nacional del Mercado de Valores.

"CPP" is the certificate of pharmaceutical product, a certificate issued in the format recommended by the WHO, which establishes the status of a pharmaceutical product and of the applicant for a certificate in the relevant exporting country.

"Diabetes" is a metabolic disease in which a person has high blood sugar, either because the pancreas does not produce enough insulin, or because cells do not respond to the insulin that is produced.

"DOJ" refers to the U.S. Department of Justice.

"ELISA" means enzyme-linked immunosorbent assay.

"EMA" refers to the European Medicines Agency.

"Erytra Eflexis" a fully automated, mid-size analyzer that performs pretransfusion compatibility testing using DG Gel technology.

"Factor VIII" or "FVIII" is an essential blood clotting factor also known as anti-haemophilic factor, or AHF. In humans, Factor VIII is encoded by the F8 gene. Defects in this gene results in hemophilia A, which is a

sex-linked disease and occurs predominantly in males. FVIII concentrated from donated blood plasma, or alternatively recombinant FVIII, or rFVIII, can be given to hemophiliacs to restore hemostasis.

"Factor IX" is an important blood clotting factor also known as Christmas factor or plasma thromboplastin component, or PTC. It is one of the serine proteases of the coagulation system and belongs to the peptidase family S1. In humans, a deficiency of this protein causes haemophilia B, which is a sex-linked disease and occurs predominantly in males.

"FDA" is the U.S. Food and Drug Administration.

"Fibrin Glue or Fibrin Sealant" is surgical adhesive material that is utilized in a variety of surgical situations.

"Fractionation" is the process of fractionating plasma, or separating it into its different components or plasma derivatives.

"FSS" refers to the Federal Supply Schedule, a schedule managed by the U.S. Department of Veterans Affairs, which includes discounted drug pricing for certain U.S. government agency programs.

"GPO" means group purchasing organization.

"Gri-fill System", a process for the sterile filling of flexible material bags.

"Hematology" is the study of blood, blood-forming organs, and blood diseases.

"Hemoderivative" is a substance obtained by fractionation of human blood plasma.

"Hemophilia A" is a genetic deficiency in clotting factor VIII, which causes increased bleeding (usually affects males).

"Hemostasis" is a complex process which causes the bleeding process to stop. It refers to the process of keeping blood within a damaged blood vessel (the opposite of hemostasis is hemorrhage). Most of the time this includes the changing of blood from a fluid to a solid state. Intact blood vessels are central to moderating blood's tendency to clot. Hemostasis has three major steps: 1) vasoconstriction, 2) temporary blockage of a break by a platelet plug, and 3) blood coagulation, or formation of a clot that seals the hole until tissue are repaired.

"HHS" refers to the U.S. Department of Health and Human Services.

"HIV" refers to the human immunodeficiency virus.

"Immunohematology" is a branch of hematology relating to the study of antigens and antibodies and their effects on blood and the relationships between disorders of the blood and the immune system.

"Immunology" is a broad branch of biomedical science that covers the study of all aspects of the immune system in organisms. It deals with the physiological functioning of the immune system in states of both health and disease; malfunctions of the immune system in immunological disorders (autoimmune diseases, hypersensitivities, immune deficiency, transplant rejection); the physical, chemical and physiological characteristics of the components of the immune system in vitro, in situ, and in vivo.

"IND" means investigational new drug application, which is an application that must be accepted by the FDA and in effect prior to certain drug sponsors commencing clinical trials involving human subjects.

"IRB" refers to institutional review boards, oversight committees that approve and monitor clinical trials to protect the rights and welfare of human subjects.

"ITP" means idiopathic thrombocytopenic purpura.

"IVIG" means intravenous immune globulin, which is a blood product administered intravenously. It contains the pooled IgG (immunoglobulin (antibody) G) extracted from plasma. It is mainly used as treatment in four major categories: (i) immune deficiencies, (ii) inflammatory and autoimmune diseases, (iii) neurological diseases and (iv) acute infections.

"Kawasaki disease" is a rare autoimmune disease that mostly affects children and causes inflammation of vessels, fever and rashes. This disease can be treated with IVIG.

"Koate-DVI" is

"Medicaid" is a social healthcare program in the United States for individuals with low income and resources.

"Medicare" is a national insurance program in the United States, primarily for persons 65 years old and over and certain younger persons with disabilities.

"Medicare Part B" is a portion of the Medicare program which includes, in part, reimbursement based on ASP for certain physician-administered drugs and drugs provided in the hospital outpatient setting.

"Medicare Part D" is a portion of the Medicare program which includes certain coverage for prescription drugs generally dispensed to patients by retail pharmacies.

"MRB" refers to the Market Research Bureau, Inc., an independent market research firm which supplies blood and plasma products industry data on a global level.

"NAT" means nucleic acid testing.

"NVD" means the share and asset agreement, executed with Novartis Vaccines and Diagnostics, Inc.

"OIG" is the HHS Office of the Inspector General, which is charged with protecting the integrity of HSS programs, including the Medicare and Medicaid programs.

"Orphan drug" is a pharmaceutical agent that has been developed specifically to treat a rare medical condition, the condition itself being referred to as an orphan disease. The assignment of orphan status to a disease and to any drugs developed to treat it is a matter of public policy in many countries, and has resulted in medical breakthroughs that may not have otherwise been achieved due to the economics of drug research and development The Orphan Drug Act (ODA) of January 1983, passed in the United States, with lobbying from the National Organization for Rare Disorders, is meant to encourage pharmaceutical companies to develop drugs for diseases that have a small market. Under the law, companies that develop such a drug (a drug for a disorder affecting fewer than 200,000 people in the United States) may sell it without competition for seven to ten years, and may get clinical trial tax incentives.

"Open Payments Program" imposes new reporting and disclosure requirements for pharmaceutical and medical device manufacturers with regard to payments or other transfers of value made to certain U.S. healthcare practitioners, such as physicians and academic medical centers, and with regard to certain ownership interests held by physicians in reporting entities.

"PDUFA" is the Prescription Drug User Fee Act, which levies a user fee on certain human drug applications.

"Plasma" is the liquid part of the blood. The majority of plasma is composed of water. The remainder is essential proteins and antibodies that help sustain our body's vital functions. A shortage of any one of these plasma proteins, such as albumin or immunoglobulins, can give rise to one of many life-threatening illnesses.

"Plasmapheresis" is a technique which separates plasma from other blood components, such as red blood cells, platelets, and other cells. These unused blood components are suspended in saline solution and immediately re-injected back into the donor while the plasma collection process is taking place. Because the donor is only providing plasma and not whole blood, the recovery process is faster and better tolerated, and the donor is therefore able to make donations more frequently. Plasmapheresis was developed by Jose Antonio Grifols Lucas in the year 1951. It is the only procedure that is capable of obtaining sufficient quantities of plasma to cover the needs of manufacturing our many different plasma protein therapies.

"Plasma derivatives" are proteins found in human plasma, which once isolated and purified, have therapeutic value.

"PTC" means plasma thromboplastin component.

"Prolastin" is a concentrated form of alpha1-antitrypsin, or AAT, produced by Grifols and derived from human plasma and approved only for chronic, or ongoing, replacement therapy in people with emphysema caused by genetic AAT deficiency. Given as prescribed, Prolastin raises the levels of AAT in the blood and lungs. Raising the AAT level may help reduce the damage to the lungs caused by destructive enzymes.

"Promonitor" Highly specific ELISA kits for quantification of serum drug levels and anti-drug antibodies of various biological drugs

"**Q-Coagulometer and Q-Smart analyzers"** Fully automated hemostasis analyzers that use reagents to measure blood coagulation levels.

"Triturus analyzers" Open and fully automated analyzer for ELISA (enzyme-linked immunoabsorbent assay), tests with multi-test/multi-batch capability.

"Von Willebrand Disease" is the most common hereditary coagulation abnormality described in humans, although it can also be acquired as a result of other medical conditions. It arises from a qualitative or quantitative deficiency of von Willebrand factor, a multimeric protein that is required for platelet adhesion.

"WADiana/Erytra analyzers" Automated immunohematology analyzers that use gel agglutination technology to enable automatic processing of DG Gel® blood determination cards.

"WHO" refers to the world health organization.

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GRIFOLS, S.A. AND SUBSIDIARIES

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Grifols, S.A. and Subsidiaries

Condensed Consolidated Interim Financial Statements
30 June 2019

Interim Consolidated Directors' Report
30 June 2019

(With Limited Review Report thereon)
(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails.)

KPMG Auditores, S.L.
Torre Realia
Plaça d'Europa, 41-43
08908 L'Hospitalet de Llobregat
(Barcelona)

(Translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails.)

Limited Review on the Condensed Consolidated Interim Financial Statements

To the Shareholders of Grifols, S.A. commissioned by the Directors

REPORT ON THE CONDENSED CONSOLIDATED INTERIM FINANCIAL STATEMENTS

Introduction

We have carried out a limited review of the accompanying condensed consolidated interim financial statements (the "interim financial statements") of Grifols, S.A. (the "Company") and subsidiaries (the "Group"), which comprise the balance sheet at 30 June 2019, the income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and the explanatory notes for the six-month period then ended (all condensed and consolidated). Pursuant to article 12 of Royal Decree 1362/2007 the Directors of the Company are responsible for the preparation of these interim financial statements in accordance with International Accounting Standard (IAS) 34 Interim Financial Reporting as adopted by the European Union. Our responsibility is to express a conclusion on these interim financial statements based on our limited review.

Scope of review

We conducted our limited review in accordance with the International Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". A limited review of interim financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A limited review is substantially less in scope than an audit conducted in accordance with prevailing legislation regulating the audit of accounts in Spain and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the accompanying interim financial statements.

Conclusion

Based on our limited review, which can under no circumstances be considered an audit, nothing has come to our attention that causes us to believe that the accompanying interim financial statements for the six-month period ended 30 June 2019 have not been prepared, in all material respects, in accordance with International Accounting Standard (IAS) 34 Interim Financial Reporting, as adopted by the European Union, for the preparation of condensed interim financial statements, pursuant to article 12 of Royal Decree 1362/2007.

Emphasis of matter

We draw your attention to note 2 to the accompanying interim financial statements, which states that these interim financial statements do not include all the information required in complete consolidated financial statements prepared in accordance with International Financial Reporting Standards as adopted by the European Union. The accompanying interim financial statements should therefore be read in conjunction with the Group's consolidated annual accounts for the year ended 31 December 2018. This matter does not modify our conclusion.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

The accompanying consolidated interim directors' report for the six-month period ended 30 June 2019 contains such explanations as the Directors of the Company consider relevant with respect to the significant events that have taken place in this period and their effect on the consolidated interim financial statements, as well as the disclosures required by article 15 of Royal Decree 1362/2007.

The consolidated interim directors' report is not an integral part of the consolidated interim financial statements. We have verified that the accounting information contained therein is consistent with that disclosed in the interim financial statements for the 6-month period ended 30 June 2019. Our work is limited to the verification of the consolidated interim directors' report within the scope described in this paragraph and does not include a review of information other than that obtained from the accounting records of Grifols, S.A. and subsidiaries.

Paragraph on other matters

This report has been prepared at the request of the Company's Directors in relation to the publication of the six-monthly financial report required by article 119 of the Revised Securities Market Law, enacted by Royal Decree 1362/2007 of 19 October 2007.

KPMG Auditores, S.L.

(*Signed on original in Spanish*)

David Hernanz Sayans

30 July 2019

GRIFOLS, S.A. and Subsidiaries

Notes to Condensed Consolidated Interim Financial Statements
for the six-month period ended 30 June 2019

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(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

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GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Balance Sheets

as of 30 June 2019 and 31 December 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Assets	30/06/2019 (unaudited)	31/12/2018
Non-current assets		
Goodwill (note 6)	5,416,606	5,209,230
Other intangible assets (note 7)	1,417,377	1,385,537
Rights of use (note 8)	657,610	0
Property, plant and equipment (note 7)	2,022,645	1,951,983
Investments in equity accounted investees	137,615	226,905
Non-current financial assets (note 9)		
Non-current financial assets measured at fair value	8	7
Non-current financial assets not measured at fair value	130,030	107,594
Deferred tax assets	117,521	112,539
Total non-current assets	**9,899,412**	**8,993,795**
Current assets		
Inventories	2,205,763	1,949,360
Trade and other receivables		
Trade receivables (note 10)	332,027	269,167
Other receivables (note 10)	103,707	92,418
Current income tax assets	23,228	42,205
Trade and other receivables	458,962	403,790
Other current financial assets (note 9)		
Current financial assets measured at fair value	0	19,934
Current financial assets not measured at fair value	169,434	34,031
Other current assets	36,507	42,344
Cash and cash equivalents	553,697	1,033,792
Total current assets	**3,424,363**	**3,483,251**
Total assets	**13,323,775**	**12,477,046**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Balance Sheets (Continued)

as of 30 June 2019 and 31 December 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Equity and liabilities	30/06/2019 (unaudited)	31/12/2018
Equity		
Share capital (note 11)	119,604	119,604
Share premium	910,728	910,728
Reserves (note 11)	2,794,647	2,441,931
Treasury stock (note 11)	(49,650)	(55,441)
Interim dividend	0	(136,747)
Profit attributable to the Parent	286,880	596,642
Total	4,062,209	3,876,717
Other comprehensive Income	(554)	(554)
Translation differences	332,109	349,391
Other comprehensive expenses	331,555	348,837
Equity attributable to the Parent	**4,393,764**	**4,225,554**
Non-controlling interests	492,055	471,050
Total equity	**4,885,819**	**4,696,604**
Liabilities		
Non-current liabilities		
Grants	11,484	11,845
Provisions	7,351	6,114
Non-current financial liabilities (note 12)	6,740,150	6,099,463
Other non-current liablities	1,398	1,301
Deferred tax liabilities	401,114	404,398
Total non-current liabilities	**7,161,497**	**6,523,121**
Current liabilities		
Provisions	54,714	80,055
Current financial liabilities (note 12)	341,295	277,382
Current debts with related companies	3,295	7,079
Trade and other payables		
Suppliers	536,743	561,883
Other payables	152,069	159,816
Current income tax liabilities	40,757	1,917
Total trade and other payables	729,569	723,616
Other current liabilities	147,586	169,189
Total current liabilities	**1,276,459**	**1,257,321**
Total liabilities	**8,437,956**	**7,780,442**
Total equity and liabilities	**13,323,775**	**12,477,046**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Profit and Loss

for each of the three-and six-month periods ended 30 June 2019 and 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Six-Months Ended		Three-Months Ended	
	30/06/2019	30/06/2018	30/06/2019	30/06/2018
	(unaudited)	(unaudited)	(unaudited)/ (not reviewed)	(unaudited)/ (not reviewed)
Continuing Operations				
Net revenues (note 5)	2,423,360	2,120,118	1,266,583	1,097,106
Cost of sales	(1,297,413)	(1,113,858)	(668,689)	(579,680)
Gross Margin	**1,125,947**	**1,006,260**	**597,894**	**517,426**
Research and Development	(132,573)	(112,247)	(69,963)	(58,281)
Sales, General and Administration expenses	(451,023)	(387,771)	(216,661)	(197,453)
Operating Expenses	**(583,596)**	**(500,018)**	**(286,624)**	**(255,734)**
Profit/(loss) of equity accounted investees with similar activity to that of the Group (note 2)	5,538	0	5,538	0
Operating Results	**547,889**	**506,242**	**316,808**	**261,692**
Finance income	10,621	7,049	4,982	4,107
Finance costs	(179,676)	(135,914)	(91,279)	(71,306)
Change in fair value of financial instruments	0	32,096	0	32,096
Impairment of financial instruments	(880)	(980)	(449)	(980)
Exchange differences	2,402	(5,439)	1,434	(3,554)
Finance Result (note 14)	**(167,533)**	**(103,188)**	**(85,312)**	**(39,637)**
Share of income/(losses) of equity accounted investees	(12,057)	(5,729)	(6,049)	(3,667)
Profit before income tax from continuing operations	**368,299**	**397,325**	**225,447**	**218,388**
Income tax expense (note 15)	(73,660)	(79,442)	(45,090)	(43,376)
Profit after income tax from continuing operations	**294,639**	**317,883**	**180,357**	**175,012**
Consolidated profit for the period	**294,639**	**317,883**	**180,357**	**175,012**
Profit attributable to the Parent	286,880	318,979	172,509	175,572
Profit/(Loss) attributable to non-controlling interest	7,759	(1,096)	7,848	(560)
Basic earnings per share (Euros)	0.42	0.47	0.25	0.26
Diluted earnings per share (Euros)	0.42	0.47	0.25	0.26

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Comprehensive Income

for each of the three-and six-month periods ended 30 June 2019 and 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Six-Months' Ended		Three-Months' Ended	
	30/06/2019	30/06/2018	30/06/2019	30/06/2018
	(unaudited)	(unaudited)	(unaudited)/ (not reviewed)	(unaudited)/ (not reviewed)
Consolidated profit for the period	**294,639**	**317,883**	**180,357**	**175,012**
Items for reclassification to profit or loss				
Translation differences	(14,692)	127,018	(72,784)	259,657
Equity accounted investees / Translation differences	6,226	5,354	(1,505)	(816)
Other comprehensive income for the period, after tax	**(8,466)**	**132,372**	**(74,289)**	**258,841**
Total comprehensive income for the period	**286,173**	**450,255**	**106,068**	**433,853**
Total comprehensive income attributable to the Parent	269,598	451,253	94,359	434,402
Total comprehensive (income)/ loss attributable to non-controlling interests	16,575	(998)	11,709	(549)
Total comprehensive income for the period	**286,173**	**450,255**	**106,068**	**433,853**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Cash Flows

for each of the six-month periods ended 30 June 2019 and 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	30/06/2019	30/06/2018
	(unaudited)	
Cash flows from operating activities		
Profit before tax	**368,299**	**397,325**
Adjustments for:	**274,546**	**191,407**
Amortisation and depreciation	148,930	107,958
Other adjustments:	125,616	83,449
(Profit)/Losses on equity accounted investments	6,519	5,729
Impairment of Assets and net provision changes	(18,580)	(24,463)
Losses on disposal of fixed assets	595	855
Government grants taken to income	(787)	(482)
Finance cost / (income)	160,065	92,031
Other adjustments	(22,196)	9,779
Changes operating assets and liabilities	**(349,389)**	**(214,300)**
Change in inventories	(209,542)	(139,046)
Change in trade and other receivables	(53,441)	(63,263)
Change in current financial assets and other current assets	7,314	510
Change in current trade and other payables	(93,720)	(12,501)
Other cash flows used in operating activities	**(147,905)**	**(125,247)**
Interest paid	(127,500)	(103,459)
Interest recovered	4,424	4,548
Income tax paid	(22,744)	(26,305)
Other amounts paid	(2,085)	(31)
Net cash from operating activities	**145,551**	**249,185**
Cash flows from investing activities		
Payments for investments	**(433,904)**	**(399,859)**
Group companies and business combinations	(109,391)	(255,406)
Property, plant and equipment and intangible assets	(181,758)	(130,834)
Property, plant and equipment	(119,266)	(93,828)
Intangible assets	(62,492)	(37,006)
Other financial assets	(142,755)	(13,619)
Proceeds from the sale of financial investments	**0**	**70,119**
Proceeds from the sale of property, plant and equipment	**1,940**	**290**
Net cash used in investing activities	**(431,964)**	**(329,450)**
Cash flows from financing activities		
Proceeds from and payments for financial liability intruments	(102,105)	(19,789)
Issue	104,800	91,722
Redemption and repayment	(206,905)	(111,511)
Dividends and interest on other equity instruments paid and received	(98,423)	(140,168)
Dividends paid	(101,912)	(142,095)
Dividends received	3,489	1,927
Other cash flows from financing activities	(794)	(1,111)
Transaction with minority interests with no loss of control	1,120	0
Net cash used in financing activities	**(200,202)**	**(161,068)**
Effect of exchange rate fluctuations on cash and cash equivalents	**6,520**	**23,311**
Net decrease in cash and cash equivalents	**(480,095)**	**(218,022)**
Cash and cash equivalents at beginning of the period	**1,033,792**	**886,521**
Cash and cash equivalents at end of period	**553,697**	**668,499**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Changes in Equity

for each of the six-month periods ended 30 June 2019 and 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to equity holders of the Parent											
							Accumulated other comprehensive income					
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury Stock	Translation differences	Available for sale financial assets	Other comprehensive income	Equity attributable to Parent	Non-controlling interests	Equity
Balances at 31 December 2017	**119,604**	**910,728**	**2,027,648**	**662,700**	**(122,986)**	**(62,422)**	**89,537**	**4,926**	**(656)**	**3,629,079**	**4,886**	**3,633,965**
Impact of new IFRS	—	—	29,562	—	—	—	—	(4,926)	—	24,636	0	24,636
Balances at 31 December 2017 adjusted	**119,604**	**910,728**	**2,057,210**	**662,700**	**(122,986)**	**(62,422)**	**89,537**	**0**	**(656)**	**3,653,715**	**4,886**	**3,658,601**
Translation differences	—	—	—	—	—	—	132,274	—	—	132,274	98	132,372
Other comprehensive income for the period	0	0	0	0	0	0	132,274	0	0	132,274	98	132,372
Profit/(loss) for the period	—	—	—	318,979	—	—	—	—	—	318,979	(1,096)	317,883
Total comprehensive income for the period	0	0	0	318,979	0	0	132,274	0	0	451,253	(998)	450,255
Net change in treasury stock	—	—	—	—	—	6,981	—	—	—	6,981	—	6,981
Other changes	—	—	(2,455)	—	—	—	—	—	—	(2,455)	—	(2,455)
Distribution of 2017 profit												
Reserves	—	—	539,714	(539,714)	—	—	—	—	—	0	(44)	(44)
Dividends	—	—	(142,094)	—	—	—	—	—	—	(142,094)	—	(142,094)
Interim dividend	—	—	—	(122,986)	122,986	—	—	—	—	0	—	0
Operations with equity holders or owners	0	0	395,165	(662,700)	122,986	6,981	0	0	0	(137,568)	(44)	(137,612)
Balances at 30 June 2018 (unaudited)	**119,604**	**910,728**	**2,452,375**	**318,979**	**0**	**(55,441)**	**221,811**	**0**	**(656)**	**3,967,400**	**3,844**	**3,971,244**

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Changes in Equity (Continued)

for each of the six-month periods ended 30 June 2019 and 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to equity holders of the Parent											
							Accumulated other comprehensive income					
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury Stock	Translation differences	Available for sale financial assets	Other comprehensive income	Equity attributable to Parent	Non-controlling interests	Equity
Balances at 31 December 2018	**119,604**	**910,728**	**2,441,931**	**596,642**	**(136,747)**	**(55,441)**	**349,391**	**0**	**(554)**	**4,225,554**	**471,050**	**4,696,604**
Translation differences	—	—	—	—	—	—	(17,282)	—	—	(17,282)	8,816	(8,466)
Other comprehensive income for the period	0	0	0	0	0	0	(17,282)	0	0	(17,282)	8,816	(8,466)
Profit/(loss) for the period	—	—	—	286,880	—	—	—	—	—	286,880	7,759	294,639
Total comprehensive income for the period	0	0	0	286,880	0	0	(17,282)	0	0	269,598	16,575	286,173
Net change in treasury stock	—	—	—	—	—	5,791	—	—	—	5,791	—	5,791
Acquisition of non-controlling interests	—	—	(4,430)	—	—	—	—	—	—	(4,430)	4,430	0
Other changes	—	—	(837)	—	—	—	—	—	—	(837)	—	(837)
Distribution of 2018 profit												
Reserves	—	—	459,895	(459,895)	—	—	—	—	—	0	—	0
Dividends	—	—	(101,912)	—	—	—	—	—	—	(101,912)	—	(101,912)
Interim dividend	—	—	—	(136,747)	136,747	—	—	—	—	0	—	0
Operations with equity holders or owners	0	0	352,716	(596,642)	136,747	5,791	0	0	0	(101,388)	4,430	(96,958)
Balances at 30 June 2019 (unaudited)	**119,604**	**910,728**	**2,794,647**	**286,880**	**0**	**(49,650)**	**332,109**	**0**	**(554)**	**4,393,764**	**492,055**	**4,885,819**

(1) General Information

Grifols, S.A. (hereinafter the Company) was incorporated with limited liability under Spanish law on 22 June 1987. Its registered and tax offices are in Barcelona. The Company's statutory activity consists of providing corporate and business administrative, management and control services, as well as investing in assets and property. Its principal activity involves rendering administrative, management and control services to its subsidiaries.

All the Company's shares are listed in the Barcelona, Madrid, Valencia, and Bilbao securities markets and on the Spanish Automated Quotation System (SIBE/Continuous Market). On 2 June 2011, Class B non-voting shares were listed on the NASDAQ (USA) and on the Spanish Automated Quotation System (SIBE/Continuous Market).

Grifols, S.A. is the parent company of the Group (hereinafter the Group or Grifols) which acts on an integrated basis under a common management and whose main activity is the procurement, manufacture, preparation, and sale of therapeutic products, especially haemoderivatives.

The main factory locations of the Group's Spanish companies are in Parets del Vallès (Barcelona) and Torres de Cotilla (Murcia), while the US companies are located in Los Angeles, (California), Clayton (North Carolina), Emeryville (California) and San Diego (California).

The Company aims to reinforce its strategic presence in China. In this regards, Grifols and Shanghai RAAS Blood Products, Co. Ltd. reached a strategic alliance agreement to market and develop haemoderivatives and transfusion diagnostic solutions in China. This transaction is subject to the approval of the regulatory authorities of both the People's Republic of China and the United States of America. The transaction is expected to be closed in the second half of 2019.

(2) Basis of Presentation and Accounting Principles Applied

These condensed consolidated interim financial statements for the six-month period ended 30 June 2019 have been prepared under International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and specifically, with that provided by the guidelines of International Accounting Standard (hereinafter IAS) 34 on Interim Financial Reporting. They do not include all of the information required for full annual financial statements, and should be read in conjunction with the consolidated financial statements of the Group for the year ended 31 December 2018.

The Board of Directors of Grifols, S.A. authorized these condensed consolidated interim financial statements for issue at their meeting held on 25 July 2019.

Amounts contained in these condensed consolidated interim financial statements are expressed in thousands of Euros.

The condensed consolidated interim financial statements of Grifols for the six-month period ended 30 June 2019 have been prepared based on the accounting records maintained by the Group. We also have included for information purposes the three-month period ended 30 June 2019.

Accounting principles and basis of consolidation applied

Except as noted below, the accounting principles and basis of consolidation applied in the preparation of these condensed consolidated interim financial statements are the same as those applied by the Group in its consolidated annual accounts as at and for the year ended 31 December 2018.

In addition, in 2019 the following standards issued by the IASB and the IFRS Interpretations Committee, and adopted by the European Union for their application in Europe have become effective and,

(2) Basis of Presentation and Accounting Principles Applied (Continued)

accordingly, have been taken into account for the preparation of these condensed consolidated interim financial statements:

Standards		Mandatory application for annual periods beginning on or after: EU effective date	Mandatory application for annual periods beginning on or after: IASB effective date
IFRS 16	Leases (Issued on 13 January 2016)	1 January 2019	1 January 2019
IFRS 9	Prep ayment Features with Negative Compensation (issued on 12 October 2017)	1 January 2019	1 January 2019
IFRIC 23	Uncertainty over Income Tax Treatments (issued on 7 June 2017)	1 January 2019	1 January 2019
IAS 28	Long-term interests in Associates and Joint Ventures (issued on 12 October 2017)	1 January 2019	1 January 2019
Various	Annual Improvements to IFRS Standards 2015- 2017 Cycle (issued on 12 December 2017)	1 January 2019	1 January 2019
IAS 19	Plan Amendment, Curtailment or Settlement (issued on 7 February 2018)	1 January 2019	1 January 2019

The application of these standards and interpretations has had some impacts in these condensed consolidated interim financial statements, which are summarized below.

IFRS 16 "Leases":

IFRS 16 brings in a single model for lease accounting by lessees in the statement of financial position. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are optional exemptions for short-term leases and leases of low value items. Lessor accounting remains similar to the current standard. Lessors continue to classify leases as finance or operating leases.

IFRS 16 replaces existing guidance on leases, including IAS 17 Leases, IFRIC 4 Determining whether an arrangement contains a lease, SIC-15 Operating leases-Incentives and SIC-27 Evaluating the substance of transactions involving the legal form of a lease.

IFRS 16 is mandatory for all financial years beginning on or after 1 January 2019. The Group has adopted IFRS 16 for the first time on 1 January 2019, but has not restated comparative figures for the 2018 reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and the adjustments arising from the new leasing rules are therefore recognized in the opening balance sheet on 1 January 2019.

The main policies, estimates and criteria for the application of IFRS 16 are as follows:

- Scope: this IFRS 16 evaluation considers all the contracts in which the Group acts as lessee, except for the contracts between Group companies and the cancelable contracts.
- Transition approach: The Group has opted to implement IFRS 16 using the modified retrospective approach, whereby the right-of-use asset is measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in the consolidated statement of financial position immediately before the date of initial application.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

When applying this modified retrospective approach, the Group does not re-express the comparative information.

- Discount rates: For financial lease contracts, Grifols discount lease payments using the implicit interest rate. For operating lease agreements, lease payments are discounted using the incremental borrowing rate. The incremental borrowing rate is the rate of interest that a lessee pays to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right- of-use asset in a similar economic environment.

  An incremental effective interest rate has been applied and varies from 2.07% to 8.18% depending on the geographical area and the term of the lease agreement at the transition date.

- Lease term for each agreement: The term considered for the leases depends, fundamentally, on whether or not the lease agreement contains a period of mandatory compliance, as well as unilateral termination and or renewal clauses that grant the Group the right to terminate early or to extend the agreements.

The Group leases several buildings, equipment and vehicles. Leases agreements are usually made for fixed periods, as shown below:

	Average lease term
Buildings and warehouses	10 to 15 years
Donor centers	13 to 15 years
PCs and hardware	3 to 5 years
M achinery	4 to 5 years
Vehicles	3 to 5 years

The lease terms of the agreements are negotiated on an individual basis and contain a wide range of terms and conditions.

- Accounting policies applied during transition: The Group has employed the following practical solutions when applying the simplified method to leases previously classified as operating leases under IAS 17 Leases:
  - Non-application of IFRS 16 to agreements that were not previously deemed to contain a lease under IAS 17 and IFRIC 4 "Determining whether an arrangement contains a lease".
  - Exclusion of the initial direct costs from the measurement of the right-of-use asset on the date of first-time adoption.
  - Exclusion of leases that expire within 12 months as from the date of first-time adoption.
  - Exclusion of leases in which the underlying asset has a low value.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

- The reconciliation of lease liabilities for buildings and warehouses in relation to leases which had previously been classified as operating leases under IAS 17 (related to non-cancelable agreements and renewals) and lease liabilities under IFRS 16 at 1 January 2019 is as follows:

	01/01/2019
	Thousands of Euros
Operating lease commitments existing as at 31 December 2018	400,579
Periods covered by an option to extend the lease by the Group	579,261
Discounting using the Group's incremental borrowing rate	(311,116)
finance lease liabilities recognised as at 31 December 2018	1,395
Short-term leases recognised on a straight-line basis as expense	(4,822)
Others	(349)
Lease liability recognised as at 1 January 2019	664,948

The Group's activities as a lessor are immaterial, and therefore there has been no significant impact on the condensed consolidated interim financial statements due to application of IFRS 16.

At the date these condensed consolidated interim financial statements were authorized for issue, the following IFRS standards, amendments and IFRIC interpretations have been issued by the European Union but their application is not mandatory until future periods as described below:

Standards		Mandatory application for annual periods beginning on or after: EU effective date	Mandatory application for annual periods beginning on or after: IASB effective date
IFRS 3	Amendment to IFRS 3: Business combinations (issued on 22 October 2018)	pending	1 January 2020
IAS 1 IAS 8	Definition of material (issued on 31 October 2018)	pending	1 January 2020
Various	Amendments to references to the Conceptual Framework in IFRS Standards (issued on 29 March 2018)	pending	1 January 2020
IFRS 17	Insurance Contracts (issued on 18 May 2017)	pending	1 January 2021

The Group has not applied any of the standards or interpretations issued prior to their effective date.

At the date these condensed consolidated interim financial statements were authorized for issue, the Group is analyzing the impact of the application of the above standards or interpretations published by the European Union (EU).

Responsibility regarding information, estimates, and relevant judgments in the application of accounting policies

The information contained in these condensed consolidated interim financial statements for the six-month period ended 30 June 2019 is the responsibility of the Directors of the Company. The preparation of the condensed consolidated interim financial statements requires management to make judgements, estimates and assumptions that affect the application of Group accounting policies. The following notes include a summary of the relevant accounting estimates and judgements used to apply accounting policies which

(2) Basis of Presentation and Accounting Principles Applied (Continued)

have the most significant effect on the amounts recognized in these condensed consolidated interim financial statements.

- Assumptions used to test non-current assets and goodwill for impairment. Relevant cash generating units are tested annually for impairment. These are based on risk-adjusted future cash flows discounted using appropriate interest rates. Assumptions relating to risk-adjusted future cash flows and discount rates are based on business forecasts and are therefore inherently subjective. Future events could cause a change in business forecasts, with a consequent adverse effect on the future results of the Group. To the extent considered that a reasonably possible change in key assumptions could result in impairment of goodwill, a sensitivity analysis has been disclosed in note 7 of the consolidated financial statements as at and for the year ended 31 December 2018 to show the effect of changes to these assumptions and the effect of the cash generating unit (CGU) on the recoverable amount.
- Determination of the fair value of assets, liabilities and contingent liabilities related to business combinations.
- Evaluation of the capitalization of development costs. The key assumption is related to the estimation of sufficient future economic benefits of the projects.
- Evaluation of provisions and contingencies. Key assumptions relate to the evaluation of the likelihood of an outflow of resources due to a past event, as well as to the evaluation of the best estimate of the likely outcome. These estimates take into account the specific circumstances of each dispute and relevant external advice and therefore are inherently subjective and could change substantially over time as new facts arise and each dispute progresses. Details of the status of various uncertainties involved in significant unresolved disputes are set out in note 17.
- Evaluation of the recoverability of tax credits, including tax loss carryforwards and rights for deductions. Deferred tax assets are recognized to the extent that future taxable profits will be available against which the temporary differences can be utilized, based on management's assumptions relating to the amount and timing of future taxable profits.

No changes have been made to prior year judgements relating to existing uncertainties.

The Group is also exposed to interest rate and currency risks.

Grifols' management does not consider that there are any assumptions or causes for uncertainty in the estimates which could imply a significant risk of material adjustments arising in the next financial year.

The estimates and relevant judgments used in the preparation of these condensed consolidated interim financial statements do not significantly differ from those applied in the preparation of the consolidated financial statements as at and for the year ended 31 December 2018.

At 30 June 2019, operating results include the item "Profit/loss of equity accounted investees with similar activity to that of the Group" amounting to Euros 5,538 thousand. This change is justified because certain investees carry out the same activity as the Group's statutory activity, described in note 1, in addition to the growing contribution they make to the consolidated statement of profit and loss. The Group has decided to apply this change in the presentation of the condensed consolidated interim financial statements without retrospective effect because the amount is not significant for previous periods.

Seasonality of transactions during this period

Given the nature of the activities conducted by the Group, there are no factors that determine any significant seasonality in the Group's operations that could affect the interpretation of these condensed

(2) Basis of Presentation and Accounting Principles Applied (Continued)

consolidated interim financial statements for the six-month period ended 30 June 2019 in comparison with the financial statements for a full fiscal year.

Relative importance

When determining the information to be disclosed in these Notes, in accordance with IAS 34, the relative importance in relation to these condensed consolidated interim financial statements has been taken into account.

(3) Changes in the Composition of the Group

For the preparation of its condensed consolidated interim financial statements, the Group has included its investments in all subsidiaries, associates and joint ventures. Appendix I of the consolidated financial statements as at 31 December 2018 lists the subsidiaries, associates and joint ventures in which Grifols, S.A. holds a direct or indirect stake and that were included in the scope of consolidation at that date.

The main changes in the scope of consolidation during the interim period ended 30 June 2019 are detailed below:

- Medcom Advance, S.A.:

In February 2019, the Group completed the acquisition of 45% of the shares in Medcom Advance, S.A. for an amount of Euros 8,602 thousand. Medcom Advance, S.A. is a company dedicated to investigation and development with a view to establishing proprietary patents using nanotechnology. The company is equity-accounted

- Interstated Blood Bank, Inc. Group:

On 11 May 2016 Grifols acquired a 49.19% stake in Interstate Blood Bank, Inc. (IBBI), 48.97% of Bio-Blood Components, Inc. (Bio-Blood) and 48.90% of Plasma Biological Services, LLC. (PBS) ("IBBI Group"), a group based in Memphis, USA, for the price of US Dollars 100 million (Euros 88,215 thousand). The Group also entered into a call option on the remaining shares for a price of US Dollars 100 million, having agreed a payment of US Dollars 10 million (Euros 9,007 thousand) for the call option. The purchase price and the call right were paid upon signature of the contract. The principal business activity of IBBI and its affiliates is the collection of plasma for the plasma fractionation industry, with 26 plasma collection centers, 9 blood donation centers and one laboratory.

In April 2019, the Group has exercised the call option and has completed the acquisition of the remaining shares of the IBBI companies.

(3) Changes in the Composition of the Group (Continued)

Details of the aggregate business combination cost, the provisional fair value of the net assets acquired and the provisional goodwill at the acquisition date are provided below:

	Thousands of Euros	Thousands of US Dollars
Consideration paid		
Cash paid	88,984	100,000
Total consideration paid	88,984	100,000
Fair value of the previous investment in the company	94,126	105,779
Fair value of the call option	8,898	10,000
Fair value of net assets acquired	19,483	21,896
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired) (note 6)	172,525	193,883

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities are as follows:

	Fair value	
	Thousands of Euros	Thousands of US Dollars
Intangible assets (note 7)	77	87
Property, plant and equipment (note 7)	23,724	26,661
Other non-current assets	135	152
Inventories	10,288	11,562
Trade and other receivables	12,793	14,377
Other current assets	1,285	1,444
Cash and cash equivalents	1,962	2,204
Total assets	50,264	56,487
Non-current liabilities	(20,848)	(23,429)
Current liabilities	(9,933)	(11,162)
Total liabilities and contingent liabilities	(30,781)	(34,591)
Total net assets acquired	19,483	21,896

The resulting goodwill has been allocated to the Bioscience segment.

If the acquisition had taken place on 1 January, 2019, the net amount of the Group's revenue and profit would not have differed significantly.

The variation between the fair value of the previous investment and the book value amounts to Euros 4,521 thousand and has been recognized in section "Share of income/(losses) of equity accounted investees with Group's similar activity" in the consolidated statement of profit or loss.

(4) Financial Risk Management Policy

At 30 June 2019 the Group's financial risk management objectives and policies are consistent with those disclosed in the consolidated financial statements for the year ended 31 December 2018.

(5) Segment Reporting

The distribution by business segments of the Group's net revenues for the three- and six-month periods ended 30 June 2019 and 30 June 2018 is as follows:

	Net revenues (Thousands of Euros)			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Segments				
Bioscience	1,920,065	1,689,875	1,004,450	882,334
Hospital	63,443	58,734	32,947	31,419
Diagnostic	348,674	339,432	183,193	174,501
Bio supplies	104,235	40,124	52,713	13,968
Other	11,095	11,578	6,032	7,133
Intersegments	(24,152)	(19,625)	(12,752)	(12,249)
Total Revenues	2,423,360	2,120,118	1,266,583	1,097,106

The distribution by geographical area of the Group's net revenues for the three- and six-month periods ended 30 June 2019 and 30 June 2018 is as follows:

	Net revenues (Thousands of Euros)			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Geographical area				
Spain	132,680	127,584	67,763	67,905
Rest of the EU	287,649	241,623	146,972	122,198
USA + Canada	1,648,343	1,412,542	852,610	732,929
Rest of the World	354,688	338,369	199,238	174,074
Total Revenues	2,423,360	2,120,118	1,266,583	1,097,106

The distribution by business segments of the Group's consolidated income for the three- and six-month periods ended 30 June 2019 and 30 June 2018 is as follows:

	Profit/(loss) (Thousands of Euros)			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Segments				
Bioscience	523,803	451,175	270,277	237,817
Hospital	(5,373)	(7,385)	(718)	(4,125)
Diagnostic	97,744	102,413	66,068	51,567
Bio supplies	6,043	23,977	4,761	7,629
Other	4,650	16,814	9,844	7,649
Intersegments	(579)	(5,257)	2,327	(2,043)
Total income of reported segments	626,288	581,737	352,559	298,494
Unallocated expenses plus net financial result	(257,989)	(184,412)	(127,112)	(80,106)
Profit before income tax from continuing operations	368,299	397,325	225,447	218,388

(6) Goodwill

Details and movement in goodwill during the six month period ended 30 June 2019 is as follows:

		Thousands of Euros			
	Segment	Balance at 31/12/2018	Business Combination	Translation differences	Balance at 30/06/2019
Net value					
Grifols UK, Ltd. (UK)	Bioscience	7,682	—	(18)	7,664
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	6,118
Biomat USA, Inc.(USA)	Bioscience	255,114	(4,277)	1,574	252,411
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,271	—	30	9,301
Grifols Therapeutics, Inc. (USA)	Bioscience	1,940,776	—	11,938	1,952,714
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	40,516
Grifols Diagnostic (Novartis & Hologic) (USA, Spain and Hong Kong)	Diagnostic	2,550,256	—	15,572	2,565,828
Kiro Grifols, S.L. (Spain)	Hospital	24,376	—	—	24,376
Goetech, LLC. (USA)	Hospital	58,945	—	363	59,308
Haema, AG. (Germany)	Bioscience	171,134	—	—	171,134
Biotest Pharma, Corp. (USA)	Bioscience	139,042	10,943	879	150,864
Interstate Blood Bank, Inc. (USA) (note 3)	Bioscience	—	172,525	(2,153)	170,372
		5,209,230	179,191	28,185	5,416,606

The variation in Biomat USA, Inc. is due to the update of amount allocated to goodwill related to the purchase of plasma centers from Kedplasma at the end of 2018.

The variation in Biotest Pharma Corp is mainly due to the acquisition of two plasma centers from ADMA on 1 January 2019 and due to the update of the amount allocated to goodwill for the acquisition of the company in 2018.

See note 3 for more information related to Interstate Blood Bank, Inc. business combination.

Impairment testing:

As a result of the acquisition of Talecris in 2011, and for impairment testing purposes, the Group combines the CGUs allocated to the Bioscience segment, grouping them together at segment level, because substantial synergies were expected to arise on the acquisition of Talecris, and due to the vertical integration of the business and the lack of an independent organized market for the products. Because the synergies benefit the Bioscience segment globally they cannot be allocated to individual CGUs. The Bioscience segment represents the lowest level to which goodwill is allocated and is subject to control by Group management for internal control purposes.

As a result of the acquisition of Novartis' Diagnostic business unit in 2014, the Group decided to combine Araclon, Progenika, Australia and Hologic's share of NAT donor screening unit acquisition into a single CGU for the Diagnostic business as the acquisition is supporting not only the vertically integration business but also cross-selling opportunities. In addition, for management purposes, the Group's management is focused on the business more than geographical areas or individual companies.

Due to the acquisition of an additional 40% stake of Kiro Grifols S.L. and a 51% stake of Goetech LLC (Medkeeper), the Group decided to group Kiro Grifols S.L., Laboratorios Grifols S.L. and Medkeeper

(6) Goodwill (Continued)

into a single CGU for the Hospital business since the acquisitions are supporting cross-selling opportunities.

The Group has not identified any triggering event that would make it necessary to test any of the CGUs for impairment for the six-month period ended 30 June 2019.

(7) Other Intangible Assets, Rights of Use and Property, Plant, and Equipment

Movement of other intangible assets, Rights of Use and property, plant and equipment during the six-month period ended 30 June 2019 is as follows:

	Thousands of Euros			
	Other intangible assets	Rights of Use	Property, plant and equipment	Total
Total Cost at 31/12/2018	2,054,740	—	3,056,656	5,111,396
Total depreciation and amortization at 31/12/2018	(602,868)	—	(1,102,113)	(1,704,981)
Impairment at 31/12/2018	(66,335)	—	(2,560)	(68,895)
Balance at 31/12/2018	1,385,537	—	1,951,983	3,337,520
Cost				
Additions	62,493	677,419	126,184	866,096
Business combination (note 3)	2,299	—	25,684	27,983
Disposals	(406)	(683)	(9,015)	(10,104)
Transfers	(638)	7,766	(12,675)	(5,547)
Translation differences	11,013	314	14,044	25,371
Total Cost at 30/06/2019	2,129,501	684,816	3,200,878	6,015,195
Depreciation & amortization				
Additions (note 13)	(39,822)	(27,424)	(81,684)	(148,930)
Disposals	60	39	6,826	6,925
Transfers	(279)	58	5,768	5,547
Translation differences	(2,478)	121	(4,516)	(6,873)
Total depreciation and amortization at 30/06/2019	(645,387)	(27,206)	(1,175,719)	(1,848,312)
Impairment				
Additions	—	—	48	48
Translation differences	(402)	—	(2)	(404)
Total impairment at 30/06/2019	(66,737)	—	(2,514)	(69,251)
Total balance at 30/06/2019	1,417,377	657,610	2,022,645	4,097,632

At 30 June 2019 there are no indications that these assets have been impaired.

Intangible assets acquired from Talecris mainly include currently marketed products. Identifiable intangible assets correspond to Gamunex and have been recognized at fair value at the acquisition date of Talecris and classified as currently marketed products. Intangible assets recognized comprise the rights on the Gamunex product, its commercialization and distribution license, trademark, as well as relations with hospitals. Each of these components are closely linked and fully complementary, are subject to similar risks and have a similar regulatory approval process.

(7) Other Intangible Assets, Rights of Use and Property, Plant, and Equipment (Continued)

Intangible assets acquired from Progenika mainly include currently marketed products. Identifiable intangible assets correspond to blood, immunology and cardiovascular genotyping. These assets have been recognized at fair value at the acquisition date of Progenika and classified as currently marketed products.

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 30 June 2019 is as follows:

	Thousands of Euros			
	Balance at 31/12/2018	Additions	Translation differences	Balance at 30/06/2019
Cost of currently marketed products—Gamunex	1,048,035	—	6,447	1,054,482
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(264,920)	(17,680)	(1,524)	(284,124)
Accumulated amortisation of currently marketed products—Progenika	(13,875)	(1,190)	—	(15,065)
Net carrying amount of currently marketed products	793,032	(18,870)	4,923	779,085

The estimated useful life of the currently marketed products acquired from Talecris is considered limited, has been estimated at 30 years on the basis of the expected life cycle of the product (Gamunex) and is amortized on a straight-line basis.

At 30 June 2019 the residual useful life of currently marketed products from Talecris is 21 years and 11 months (22 years and 11 months at 30 June 2018).

The estimated useful life of the currently marketed products acquired from Progenika is considered limited, has been estimated at 10 years on the basis of the expected life cycle of the product and is amortized on a straight-line basis.

At 30 June 2019 the residual useful life of currently marketed products from Progenika is 3 years and 8 months (4 years and 8 months at 30 June 2018).

(8) Leases

Details of leases at 30 June 2019 are as follows:

	Thousands of Euros
	30/06/2019
Rights of use	
Land and Buildings	640,143
Machinery	4,317
Computer equipment	4,843
Vehicles	8,307
	657,610

	Thousands of Euros
	30/06/2019
Lease liabilities	
Non-current	643,781
Current	39,338
	683,119

(8) Leases (Continued)

At 30 June 2019, the Group has recognized an amount of Euros 677,419 thousand related to additions of rights of use, from which Euros 670,478 thousand correspond to the initial addition. Movement during the period ended 30 June 2019 is included in note 7 "Other intangible assets, Rights of Use and property, plant and equipment".

At 30 June 2019, the amounts recognized in the consolidated statement of profit and loss related to lease agreements are:

	Thousands of Euros
	30/06/2019
Rights of use depreciation	
Buildings	23,479
Machinery	854
Computer equipment	1,063
Vehicles	2,028
	27,424

	Thousands of Euros
	30/06/2019
Finance lease expenses (note 14)	16,586
	16,586

	Thousands of Euros
	30/06/2019
Expenses related to short-term or low-value agreements	16,927
Other operating lease expenses	392
	17,319

At 30 June 2019, the Group has paid a total of Euros 29,880 thousand related to lease agreements.

The total amount recognized in the balance sheet corresponds to lease agreements in which the Group is the lessee.

(9) Financial Assets

Details of non-current financial assets on the consolidated balance sheet at 30 June 2019 and 31 December 2018 are as follows:

	Thousands of Euros	
	30/06/2019	31/12/2018
Investments in quoted shares	8	7
Total Non-current financial assets measured at fair value	8	7
Non-current guarantee deposits	5,326	5,566
Other non-current financial assets	23,083	1,908
Non-current loans to related parties	83,480	82,969
Non-current loans to associates (b)	18,141	17,151
Total Non-current financial assets at amortized cost	130,030	107,594

Details of other current financial assets on the consolidated balance sheet at 30 June 2019 and 31 December 2018 are as follows:

	Thousands of Euros	
	30/06/2019	31/12/2018
Current derivatives (a)	—	19,934
Current financial assets measured at fair value	—	19,934
Current deposits and guarantees	729	822
Current loans to third parties (c)	134,422	56
Current loans to associates	34,283	33,153
Current financial assets at amortized cost	169,434	34,031

(a) Derivatives

On 30 April 2019, the call option was exercised by the Group through written notice of its intention. The derivatives included a call option on the shares not acquired from Interstate Blood Bank, Inc., Bio-Blood Components, Inc. and Plasma Biological Services, LLC. (see note 3).

On the other hand, on 1 January 2019 the Biotest Pharmaceuticals Corporation call option was exercised over two ADMA plasma donation centers.

(b) Non-current loans to associates

On 2 October 2017 the Group's subsidiary Grifols Diagnostic Solutions, Inc. subscribed notes for an amount of US Dollars 20,000 thousand (Euros 16,676 thousand) issued by Singulex, Inc., that bear at an interest rate of 5% and mature on 19 September 2019. In the first half of 2018, the Group's subsidiary Grifols Diagnostic Solutions, Inc. subscribed additional notes for an amount of US Dollars 12,339 thousand (Euros 11,063 thousand). The Group indirectly owns 19.33% of the common stock of Singulex Inc.

On 31 December 2018 Grifols Diagnostic Solutions, Inc., made a distribution in kind to Grifols, S.A. of all interests and investments in Singulex. Simultaneously, Grifols, S.A. transferred them to Grifols Shared Services North America, Inc.

(9) Financial Assets (Continued)

(c) Loans to third parties

The increase in Loans to third parties corresponds to a temporary deposit for a potential corporate transaction.

(10) Trade and Other Receivables

At 30 June 2019, certain companies of the group had signed sales agreements for credit receivables without recourse with certain financial institutions.

The total sum of credit receivables sold without recourse, for which ownership was transferred to financial institutions pursuant to the aforementioned agreements, amounts to Euros 701,153 thousand for the six-month period ended 30 June 2019 (Euros 520,066 thousand for the six-month period ended 30 June 2018 and Euros 1,188,216 thousand for the year ended 31 December 2018).

The deferred collection equivalent to the amount receivable from a financial institution is presented on the balance sheet under "Other receivables" for an amount of Euros 461 thousand as at 30 June 2019 (Euros 1,220 thousand as at 31 December 2018) which does not differ significantly from their fair value and is also equal to the amount of the maximum exposure to loss.

The finance cost of receivables sold amounts to Euros 4,317 thousand for the six-month period ended 30 June 2019 (Euros 1,935 thousand for the six-month period ended 30 June 2018) (see note 14).

(11) Equity

Details of consolidated equity and changes are shown in the condensed consolidated statement of changes in equity, which forms an integral part of the condensed consolidated interim financial statements.

(a) Share capital and share premium

At 30 June 2019 and 31 December 2018, the Company's share capital amounts to Euros 119,603,705 and comprises:

- Class A shares: 426,129,798 ordinary shares of Euros 0.25 par value each, subscribed and fully paid and of the same class and series.
- Class B shares: 261,425,110 non-voting preference shares of 0.05 Euros par value each, of the same class and series, and with the preferential rights set forth in the Company's by-laws.

(b) Reserves

The availability of the reserves for distribution is subject to legislation applicable to each of the Group companies. At 30 June 2019, Euros 24,914 thousand equivalent to the carrying amount of development costs pending amortization of certain Spanish companies (Euros 35,613 thousand at 31 December 2018) are, in accordance with applicable legislation, restricted reserves which cannot be distributed until these development costs have been amortized.

Companies in Spain are obliged to transfer 10% of each year's profits to a legal reserve until this reserve reaches an amount equal to 20% of share capital. This reserve is not distributable to shareholders and may only be used to offset losses if no other reserves are available. Under certain conditions it may be used to increase share capital provided that the balance left on the reserve is at least equal to 10% of the nominal value of the total share capital after the increase.

At 30 June 2019 and 31 December 2018 the legal reserve of the Parent amounts to Euros 23,921 thousand.

(11) Equity (Continued)

(c) Treasury stock

At 30 June 2019 and 30 June 2018 the Company does not have Class A treasury stock.

Movement in Class B treasury stock during the six-month period ended 30 June 2019 is as follows:

	No. of Class B shares	Thousand of Euros
Balance at 1 January 2019	3,818,451	55,441
Disposals Class B shares	(398,888)	(5,791)
Balance at 30 June 2019	3,419,563	49,650

In March 2019 the Group delivered 398,888 treasury stocks (Class B shares) to eligible employees as compensation for the Restricted Share Unit Retention Plan (see note 17 (b)).

Movement in Class B treasury stock during the six-month period ended 30 June 2018 is as follows:

	No. of Class B shares	Thousand of Euros
Balance at 1 January 2018	4,297,806	62,422
Disposals Class B shares	(480,661)	(6,981)
Balance at 30 June 2018	3,817,145	55,441

In March 2018 the Company delivered 480,661 treasury stocks (Class B shares) to eligible employees as compensation for the Restricted Share Unit Retention Plan (see note 17 (b)).

(d) Distribution of profits

The profits of Grifols, S.A. and subsidiaries will be distributed as agreed by the respective shareholders at their general meetings and the proposed distribution of profit for the year ended 31 December 2018 is presented in the consolidated statement of changes in equity.

Dividends paid during the six-month period ended 30 June 2019 are as follows:

	Six-Months Ended 30 June 2019		
	% of par value	Euros per share	Thousands of Euros
Ordinary Shares	58%	0.15	61,850
Non-voting shares	290%	0.15	37,448
Non-voting shares (Preferred Dividend)	20%	0.01	2,614
Total Dividends Paid			101,912

Dividends paid during the six-month period ended 30 June 2018 were as follows:

	Six-Months Ended 30 June 2018		
	% of par value	Euros per share	Thousands of Euros
Ordinary Shares	82%	0.20	86,929
Non-voting shares	408%	0.20	52,551
Non-voting shares (Preferred Dividend)	20%	0.01	2,614
Total Dividends Paid			142,094

(11) Equity (Continued)

(e) Restricted Share Unit Compensation

The Group has set up a Restricted Share Unit Retention Plan (hereinafter RSU) for certain employees (see note 17 (b)). This commitment is settled using equity instruments and the cumulative accrual amounts to Euros 10,711 thousand in June 2019 (Euros 12,652 thousand in December 2018).

(12) Financial Liabilities

Details of financial liabilities at 30 June 2019 and 31 December 2018 are as follows:

	Thousands of Euros	
Financial liabilities	**30/06/2019**	**31/12/2018**
Non-current obligations (a)	1,000,000	1,000,000
Senior secured debt (b)	4,769,145	4,771,285
Other loans	248,941	239,686
Finance lease liabilities	193	9,537
Other non-current financial liabilities	78,090	78,955
Non-current lease liabilities (note 8)	643,781	—
Total non-current financial liabilities	6,740,150	6,099,463
Current obligations (a)	102,236	102,978
Senior secured debt (b)	158,456	129,955
Other loans	25,146	24,839
Finance lease liabilities	93	3,348
Other current financial liabilities	16,026	16,262
Current lease liabilities (note 8)	39,338	—
Total current financial liabilities	341,295	277,382

In September 2018, Grifols obtained a new non-current loan from the European Investment Bank totaling Euros 85,000 thousand that will be used by Grifols to support its investments in R&D&i, mainly focused on the search for new therapeutic indications for plasma-derived protein therapies. The financial terms include a fixed interest rate and, a maturity of 10 years with a grace period of 2 years.

On 5 December 2017 and 28 October 2015, the Group arranged loans with the same entity and with the same conditions for amounts of Euros 85,000 thousand and Euros 100,000 thousand, respectively. At 30 June 2019 and 31 December 2018, the carrying amount of the loans obtained from the European Investment Bank amounts to Euros 244,375 thousand.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total bond issuance amounted to Euros 1,000 million.

On 6 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounted to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consisted of a US Dollars 6,000 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

(a) Senior Unsecured Notes

On 18 April 2017, Grifols, S.A. issued Euros 1,000 million of Senior Unsecured Notes (the "Notes") that will mature in 2025 and will bear an annual coupon of 3.20%. These notes have been exchanged with

(12) Financial Liabilities (Continued)

97.1% of the Senior Unsecured Notes issued in 2014 by Grifols Worldwide Operations Limited, a wholly-owned subsidiary of Grifols, S.A., amounting to US Dollars 1,000 million, with a maturity in 2022 and at an interest rate of 5.25%, which were owned by a financial institution. The remaining 2.9% of the existing notes was redeemed prior to the refinancing by an amount of Euros 26,618 thousand. The corresponding deferred costs of the redeemed Notes were taken to profit and loss. On 2 May 2017 the Notes were admitted to listing on the Irish Stock Exchange.

Due to the implementation of IFRS 9, the refinancing of the Senior Unsecured Noteshas resulted in a decrease in liabilities, as the newquantitative test was not passed.

The total principal plus interest of the Senior Unsecured Notes to be paid is detailed as follows:

	Senior Unsecured Notes
Maturity	Principal+Interest in Thousands of Euros
2019	16,000
2020	32,000
2021	32,000
2022	32,000
2023	32,000
2024	32,000
2025	1,016,000
Total	1,192,000

(b) Senior Secured Debt

Current loans and borrowings include accrued interest amounting to Euros 3,631 thousand at 30 June 2019 (Euros 2,546 thousand at 31 December 2018).

On 6 February 2017 the Group refinanced its Senior Secured Debt with the existing lenders and obtained the additional debt for the acquisition of Hologic for an amount of US Dollars 1,816 million. The new senior debt consists of a Term Loan A ("TLA"), which amounts to US Dollars 2,350 million and Euros 607 million with a 1.75% margin over Libor and Euribor respectively, with maturity in 2023 and quasi-bullet repayment structure, and a Term Loan B ("TLB") amounting to US Dollars 3,000 million with a 2.25% margin over Libor and maturity in 2025. The borrowers of the total senior debt are Grifols Worldwide Operations Limited and Grifols, S.A. for the Term Loan A and Grifols Worldwide Operations USA, Inc. for the Term Loan B.

The present value discounted from cash flows under the refinanced agreement, including any fees paid and discounted using the original effective interest rate, differs by less than 10% of the discounted present value of cash flows remaining in the original debt, whereby it is considered that the debt instrument has not been substantially modified.

The costs of refinancing the senior debt amounted to Euros 84.8 million. Based on the analysis of the quantitative and qualitative factors, the Group has concluded that the renegotiation of conditions of the senior debt does not trigger a derecognition of the liability. The difference between the amortized cost of the debt applying the new IFRS 9 is Euros 254,515 thousand less than its nominal value.

The terms and conditions of the senior secured debt are as follows:

- **Tranche A:** six year loan divided into two tranches: US Tranche A and Tranche A in Euros.

(12) Financial Liabilities (Continued)

- **Tranche A in US Dollars**:
  - Original principal amount of US Dollars 2,350 million.
  - Applicable margin of 175 basis points (bp) linked to US Libor.
  - Quasi-bullet repayment structure.
  - Maturity in 2023
- **Tranche A in Euros:**
  - Original principal amount of Euros 607 million.
  - Applicable margin of 175 basis points (bp) linked to Euribor.
  - Quasi-bullet repayment structure.
  - Maturity in 2023

Details of the Tranche A by maturity at 30 June 2019 are as follows:

	Tranche A in US Dollars			Tranche A in Euros	
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros	Currency	Principal in thousands of Euros
2019	US Dollars	58,750	51,626	Euros	15,175
2020	US Dollars	235,000	206,503	Euros	60,700
2021	US Dollars	235,000	206,503	Euros	60,700
2022	US Dollars	1,321,875	1,161,577	Euros	341,437
2023	US Dollars	440,625	387,192		113,812
Total	US Dollars	2,291,250	2,013,401	Euros	591,824

- **Tranche B in US Dollars:** loan repayable in eight years.
  - Original principal amount of US Dollars 3,000 million.
  - Applicable margin of 225 basis points (bp) linked to US Libor.
  - Quasi-bullet repayment structure.
  - Maturity in 2025

Details of the maturity of the Tranche B principal at 30 June 2019 are as follows:

	Tranche B in US Dollars		
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros
2019	US Dollars	15,000	13,181
2020	US Dollars	30,000	26,362
2021	US Dollars	30,000	26,362
2022	US Dollars	30,000	26,362
2023	US Dollars	30,000	26,362
2024	US Dollars	30,000	26,362
2025	US Dollars	2,767,500	2,431,898
Total	US Dollars	2,932,500	2,576,889

(12) Financial Liabilities (Continued)

- **US Dollar 300 million committed credit revolving facility:** Amount maturing on 2023 and applicable margin of 175 basis points (bp) linked to US Libor. At 30 June 2019 no amount has been drawn down on this facility.

The total principal plus interest of Tranches A and B Senior Loan is as follows:

	Thousands of Euros	
Maturity	Tranche A Senior Loan	Tranche B Senior Loan
2019	114,207	73,978
2020	356,011	146,365
2021	346,051	144,801
2022	1,548,342	143,565
2023	502,550	142,330
2024	—	141,410
2025	—	2,441,577
Total	2,867,161	3,234,026

The issue of Senior Unsecured Notes and Senior Secured Debt is subject to compliance with the leverage ratio covenant. At 30 June 2019 the Group complies with this covenant.

Both the Senior Term Loans and the Revolving Loans are secured by Grifols, S.A. and certain significant subsidiaries of Grifols, S.A., which together with Grifols, S.A., represent, in the aggregate, at least 80% of the consolidated assets and consolidated EBITDA of the Group.

The Notes have been issued by Grifols, S.A. and are secured on a senior unsecured basis by subsidiaries of Grifols, S.A. that are guarantors and co-borrowers under the New Credit Facilities. The Guarantors are Grifols Worldwide Operations Limited, Biomat USA, Inc., Grifols Biologicals Inc., Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics, Inc., Instituto Grifols, S.A. Grifols Worldwide Operations USA, Inc. and Grifols USA, Llc.

(13) Expenses by Nature

Details of wages and other employee benefits expenses by function are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Cost of sales	474,304	382,536	240,474	189,856
Research and development	52,597	46,149	27,085	22,811
Selling, general & administrative expenses	188,193	166,944	94,016	83,775
	715,094	595,629	361,575	296,442

Details of amortization and depreciation expenses by function are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Cost of sales	95,689	68,650	47,832	35,232
Research and development	10,712	9,568	5,358	4,978
Selling, general & administrative expenses	42,529	29,740	21,253	14,865
	148,930	107,958	74,443	55,075

(14) Finance Result

Details are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2019	Six-Months Ended 30 June 2018	Three-Months Ended 30 June 2019	Three-Months Ended 30 June 2018
			Not reviewed	Not reviewed
Finance income	10,621	7,049	4,982	4,107
Finance cost from Senior Unsecured Notes	(18,028)	(17,569)	(9,082)	(8,913)
Finance cost from Senior debt	(143,173)	(112,958)	(72,196)	(59,744)
Finance cost from sale of receivables (note 10)	(4,317)	(1,935)	(2,160)	(1,100)
Capitalised interest	6,919	3,972	3,518	1,945
Finance lease expense (note 8)	(16,586)	—	(8,873)	—
Other finance costs	(4,491)	(7,424)	(2,486)	(3,494)
Finance costs	(179,676)	(135,914)	(91,279)	(71,306)
Impairment financial instruments (note 9)	(880)	(980)	(449)	(980)
Change in fair value of financial instruments	—	32,096	—	32,096
Exchange differences	2,402	(5,439)	1,434	(3,554)
Finance result	(167,533)	(103,188)	(85,312)	(39,637)

(15) Taxation

Income tax expense is recognized based on management's best estimate of the weighted average annual income tax rate expected for the full financial year applied to the pre-tax income of the interim period. The Group's consolidated effective tax rate is 20% for the six-month periods ended 30 June 2019 and 2018.

Regarding income tax audits, during the six-month period ended 30 June 2019, the Group has received notification of an inspection for Grifols, S.A., Grifols Movaco, S.A., Diagnostic Grifols, S.A. and Instituto Grifols, S.A. for 2014 to 2016 for corporate income tax and 2015 to 2016 for VAT and withholding tax.

(16) Discontinued operations

The Group has not discontinued any operations for the six-month periods ended 30 June 2019 and 2018.

(17) Contingencies and Commitments

(a) Contingencies

Details of legal proceedings in which the Company or Group companies are involved are as follows:

- **ORTHO-CLINICAL DIAGNOSTICS, INC., GRIFOLS DIAGNOSTIC SOLUTIONS, INC. adv. SIEMENS HEALTHCARE DIAGNOSTICS, INC.**

Noticed: 20 November 2018

Contract Dispute

Ortho-Clinical Diagnostics, Inc. ("Ortho") and Grifols Diagnostic Solutions, Inc. ("GDS") dispute with Siemens Healthcare Diagnostics, Inc. ("Siemens") regarding sales and commissions under the Supply and Agency Agreement.

(17) Contingencies and Commitments (Continued)

NEXT ACTION: Dispute Resolution initiated per the Supply and Agency Agreement. Common Interest and Joint Defense Agreement entered between Ortho and GDS. Initial meeting held on 14 June 2019 with external counsel attending for Ortho and Grifols. Meeting with executives and counsel to be scheduled.

- **BIOMERIEUX, S.A., et al. v. HOLOGIC, INC., GRIFOLS, S.A., GRIFOLS DIAGNOSTIC SOLUTIONS INC.**

Noticed: 9 February 2017

US District Court for the Middle District of North Carolina

Patent Infringement, Case No. 1:17-CV-102

bioMérieux alleges infringement of U.S. Patent Nos. 8,697,352 and 9,074,262 by Hologic Inc. (“Hologic”), GDS and Grifols SA (“GSA”) with respect to identified HIV Assays.

NEXT ACTION: Markham (Claim Construction) hearing conducted on 29 January 2019. The Patent and Trademark Appeals Board (“PTAB”) denied Hologic’s requests for Institution of Inter Parties Review and denied subsequent requests for rehearing of the PTAB decisions.

On 31 March 2019, the Court issued its order on plaintiffs’ to sever and stay their contractual defense under the Non-Assertion Agreement pending resolution of the liability issues. The Court severed but did not stay the defense and imposed a deadline on any motion to compel arbitration. The parties opted not to file an arbitration demand. Fact discovery has been completed.

The order was issued on 11 June 2019. The Court adopted Plaintiffs’ claim constructions for the four disputed terms.

- **ENZO LIFE SCIENCES, INC. v. HOLOGIC, INC., GRIFOLS DIAGNOSTIC SOLUTIONS INC., and GRIFOLS, S.A.**

Noticed: 20 November 2017

Delaware District Court
Patent Infringement, Case No. 1:16-cv-00894-LPS

Enzo Life Sciences alleged infringement of US. Patent No. 6,221,581 by Hologic, GDS and GSA with respect to the defendants’ blood screening and diagnostic assays. On 16 April 2019, the parties reached a settlement on the entirety of the litigation, including other cases against Hologic with respect to US Patent Nos. 6,992,180 and 7,064,197. The case was dismissed on 25 April 2019. The terms of the settlement agreement include one-time payments to Enzo in exchange for fully paid-up, worldwide licenses to Hologic and Grifols. Grifols’ share consists of a one-time payment by Grifols to Enzo in the amount of three million and five hundred thousand U.S. Dollars ($3,500,000.00). All other terms remain confidential.

- **NOVARTIS VACCINES AND DIAGNOSTICS, INC., NOVARTIS PHARMA AG, and GRIFOLS WORLDWIDE OPERATIONS LIMITED v. REGENERON PHARMACEUTICALS, INC.**

Served: 24 May 2018 on Regeneron

US District Court for the Southern District of New York White Plains Division

Patent Infringement, Civil Action No. 7:18-cv-2434

Novartis Vaccines and Diagnostics, Inc., Novartis Pharma AG, and Grifols Worldwide Operations Limited allege patent infringement of U.S. Patent No. 5,688,688 (“the ‘688 patent”).

NEXT ACTION: Joint Defense Agreement with Novartis. Defendants filed a motion to dismiss willful infringement claims in 2 August 2018, which was denied on 24 October 2018. Deposition of Seamus

(17) Contingencies and Commitments (Continued)

McCooey as 30(b)(6) witness for Grifols taken on 21 March 2019. Court-ordered mediation was held 30 May 2019 with no resolution. Regeneron filed an IPR on 14 May 2019 with the PTAB with respect to the 688 patent.

(b) Commitments

- **Restricted Share Unit Retention Plan**

For the annual bonus, the Group established a Restricted Share Unit Retention Plan (RSU Plan), for eligible employees. By these plans, the employee could elect to receive up to 50% of its yearly bonus in non-voting Class B ordinary shares (Grifols Class B Shares) or Grifols American Depositary Shares (Grifols ADS), and the Group will match with an additional 50% of the employee election of RSUs (additional RSUs).

Grifols Class B Shares and Grifols ADS are valued at grant date.

These RSUs will have a vesting period of 2 years and 1 day and, subsequently, the RSU's will be exchanged for Grifols Class B Shares or Grifols ADS (American Depositary Share representing 1 Class B Share).

If an eligible employee leaves the Company or is terminated before the vesting period, he will not be entitled to the additional RSU.

At 30 June 2019, the Group has settled the RSU plan of 2016 for an amount of Euros 8,414 thousand (Euros 9,645 thousand at 30 June 2018 regarding RSU plan of 2015).

This commitment is treated as equity-settled and the accumulated amount recognized as at 30 June 2019 as share based payments costs of employees is Euros 10,711 thousand (Euros 12,652 thousand at December 2018).

(18) Financial Instruments

Classification

Disclosure of financial instruments by nature, category and fair value is as follows:

	Thousands of Euros							
	30/06/2019							
	Carrying amount					Fair Value		
	Financial assets at amortised costs	Financial assets at FVTPL	Financial liabilities at amortised costs	Other financial liabilities	Total	Level 1	Level 2	Total
Non-current financial assets		8			8	8		8
Financial assets measured at fair value	**—**	**8**	**—**	**—**	**8**			
Non-current financial assets	130,030				130,030			
Other current financial assets	169,434				169,434			
Trade and other receivables	462,096				462,096			
Cash and cash equivalents	553,697				553,697			
Financial assets not measured at fair value	**1,315,257**	**—**	**—**	**—**	**1,315,257**			
Senior Unsecured Notes	—	—	(1,005,333)	—	(1,005,333)	(1,034,245)	—	(1,034,245)
Promissory Notes	—	—	(96,903)	—	(96,903)			
Senior secured debt	—	—	(4,927,601)	—	(4,927,601)	—	(5,170,852)	(5,170,852)
Other bank loans	—	—	(274,087)	—	(274,087)			
Finance lease payables	—	—	(286)	—	(286)			
Other financial liabilities	—	—	(94,116)	—	(94,116)			
Debts with associates	—	—	(3,295)	—	(3,295)			
Lease liabilities	—	—	(683,119)	—	(683,119)			
Other non-current debts	—	—	—	(1,398)	(1,398)			
Trade and other payables	—	—	—	(688,812)	(688,812)			
Other current liabilities	—	—	—	(147,586)	(147,586)			
Financial liabilities not measured at fair value	**—**	**—**	**(7,084,740)**	**(837,796)**	**(7,922,536)**			
	1,315,257	**8**	**(7,084,740)**	**(837,796)**	**(6,607,271)**			

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(18) Financial Instruments (Continued)

	Thousand of Euros								
	31/12/2018								
	Carrying amount					Fair Value			
	Financial assets at amortised costs	Financial assets at FVTPL	Financial liabilities at amortised costs	Other financial liabilities	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	7	—	—	7	7	—	—	7
Current Financial derivatives	—	19,934	—	—	19,934	—	—	19,934	19,934
Financial assets measured at fair value	**—**	**19,941**	**—**	**—**	**19,941**				
Non-current financial assets	107,594	—	—	—	107,594				
Other current financial assets	34,031	—	—	—	34,031				
Trade and other receivables	361,585	—	—	—	361,585				
Cash and cash equivalents	1,033,792	—	—	—	1,033,792				
Financial assets not measured at fair value	**1,537,002**	**—**	**—**	**—**	**1,537,002**				
Senior Unsecured Notes	—	—	(1,005,333)	—	(1,005,333)	(985,480)	—	—	(985,480)
Promissory Notes	—	—	(97,645)	—	(97,645)				
Senior secured debt	—	—	(4,901,240)	—	(4,901,240)	—	(5,055,323)	—	(5,055,323)
Other bank loans	—	—	(264,525)	—	(264,525)				
Finance lease payables	—	—	(12,885)	—	(12,885)				
Other financial liabilities	—	—	(95,217)	—	(95,217)				
Debts with associates	—	—	(7,079)	—	(7,079)				
Other non-current debts	—	—	—	(1,301)	(1,301)				
Trade and other payables	—	—	—	(721,699)	(721,699)				
Other current liabilities	—	—	—	(169,189)	(169,189)				
Financial liabilities not measured at fair value	**—**	**—**	**(6,383,924)**	**(892,189)**	**(7,276,113)**				
	1,537,002	**19,941**	**(6,383,924)**	**(892,189)**	**(5,719,170)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(18) Financial Instruments (Continued)

Financial derivatives

On 11 May 2016 the Group paid an aggregate amount equal to US Dollars 10,000 thousand (Euros 8,960 thousand at the exchange rate at the date of acquisition) in respect of the call option for the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. shares that are not owned by the Group. The call option was exercised by the Group by delivering written notice of its intention on the 30 April 2019.

On 6 June 2017, Biotest Pharmaceuticals Corporation agreed to purchase from ADMA Biologics all of its rights, titles and interests in two donation centers located in Georgia, USA. On 1 August 2018, Grifols acquired Biotest Pharmaceuticals Corporation and its net assets (including the CALL option). The ADMA call option was exercised on 1 January 2019.

Concentration of credit risk

For trade receivables the Group uses the simplified approach, estimating lifetime expected credit losses, while for all other financial assets the Group uses the general approach for calculating expected credit losses. In both cases, due to the customers' credit rating, as well as the internal classification systems currently in place for new customers, and considering that collection periods are mostly under 30 days, there is no significant impact for the Group.

(19) Related Parties

Transactions with related parties have been performed as part of the Group's ordinary course of business and have been performed at arm's length.

Group transactions with related parties during the six-month period ended 30 June 2019 are as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
Net sales	4,253	—	—	—
Purchases of inventory	(43,875)	—	—	—
Other service expenses	(13,575)	—	(1,572)	(220)
Remuneration	—	(9,545)	—	(2,572)
Finance costs	(125)	—	—	—
Finance income	1,516	—	—	—
	(51,806)	(9,545)	(1,572)	(2,792)

(19) Related Parties (Continued)

Group transactions with related parties during the six-month period ended 30 June 2018 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
Net Sales	3,081	—	—	—
Purchases of inventory	(39,967)	—	—	—
Other service expenses	(8,181)	—	(1,945)	(412)
Operating lease expenses	—	—	(2,592)	—
Remuneration	—	(8,966)	—	(3,657)
R&D agreements	(48)	—	—	—
Finance costs	(321)	—	—	—
Finance income	862			
	(44,574)	(8,966)	(4,537)	(4,069)

Group transactions with related parties during the three-months period ended 30 June 2019 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
		Not reviewed		
Net sales	2,240	—	—	—
Purchases of inventory	(10,789)	—	—	—
Other service expenses	(6,976)	—	(1,471)	
Remuneration	—	(4,715)	—	(1,285)
Finance costs	(38)	—	—	—
Finance income	789	—	—	—
	(14,774)	(4,715)	(1,471)	(1,285)

Group transactions with related parties during the three-months period ended 30 June 2018 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
		Not reviewed		
Net Sales	1,288	—	—	—
Purchases of inventory	(24,734)	—	—	—
Other service expenses	(4,635)	—	(102)	(206)
Operating lease expenses	—	—	(1,304)	—
Remuneration	—	(4,365)	—	(1,828)
R&D agreements	(48)	—	—	—
Finance costs	(159)	—	—	—
Finance income	464	—	—	—
	(27,824)	(4,365)	(1,406)	(2,034)

(19) Related Parties (Continued)

On 28 December 2018, the Group sold Biotest and Haema to Scranton Enterprises B.V (shareholder of Grifols) for US Dollars 538,014 thousand. For the payment of the aforementioned sale amount, Scranton signed a loan agreement dated 28 December 2018 for an amount of US Dollars 95,000 thousand (Euros 82,969 thousand) with Grifols Worldwide Operations Limited. Interest on this loan is 2%+EURIBOR and it falls due on 28 December 2025.

The Group has not extended any advances or loans to the members of the board of directors or key management personnel nor has it assumed any guarantee commitments on their behalf. It has also not assumed any pension or life insurance obligations on behalf of former or current members of the board of directors or key management personnel. In addition, as disclosed in note 29(c) of the consolidated financial statements as at and for the year ended 31 December 2018, certain Company directors and key management personnel are entitled to termination benefits.

KPMG Auditores, S.L.
Torre Realia
Plaça d'Europa, 41-43
08908 L'Hospitalet de Llobregat
(Barcelona)

Independent Auditor's Report on the Consolidated Annual Accounts

(Translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

To the Shareholders of Grifols, S.A.

Opinion

We have audited the consolidated annual accounts of Grifols, S.A. (the "Parent") and subsidiaries (the "Group") which comprise the consolidated balance sheet at 31 December 2018, and the consolidated statement of profit and loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and consolidated notes.

In our opinion, the accompanying consolidated annual accounts give a true and fair view, in all material respects, of the consolidated equity and consolidated financial position of the Group at 31 December 2018 and of its consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and other provisions of the financial reporting framework applicable in Spain.

Basis for Opinion

We conducted our audit in accordance with prevailing legislation regulating the audit of accounts in Spain. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Annual Accounts section of our report.

We are independent of the Group in accordance with the ethical requirements, including those regarding independence, that are relevant to our audit of the consolidated annual accounts in Spain pursuant to the legislation regulating the audit of accounts. We have not provided any non-audit services, nor have any situations or circumstances arisen which, under the aforementioned regulations, have affected the required independence such that this has been compromised.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the consolidated annual accounts for the current period. These matters were addressed in the context of our audit of the consolidated annual accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Impairment of Goodwill

See note 7 to the consolidated annual accounts

Key Audit Matter	*How the Matter was Addressed in Our Audit*
The Group has recognised goodwill allocated to the corresponding cash generating units (CGU) of Euros 5,209,230 thousand. The Group calculates the recoverable amount of goodwill on an annual basis to determine whether they have been impaired. These recoverable amounts are determined by applying valuation techniques which require judgement by the Directors and the use of assumptions and estimates in relation to the financial projections and cash flow discounts used. Due to the high level of judgement, the uncertainty associated with these estimates and the significance of the carrying amount of these goodwill, this has been considered a key matter of our audit for the current year.	Our audit procedures comprised the following: • assessing the design and implementation of the controls linked to the process of evaluating the impairment of goodwill. • assessing the reasonableness of the methodology used to calculate the recoverable amount and the main assumptions, with the involvement of our valuation specialists. • comparing the coherence of the estimates of growth of future cash flows of each CGU included in the calculation of recoverable amount with the business plans approved by the Group's governing bodies. We have also compared the cash flow forecasts of the cash generating units estimated in prior years with the actual cash flows obtained. • assessing the sensitivity to reasonably possible changes in certain assumptions. • evaluating whether the disclosures in the consolidated annual accounts meet the requirements of the financial reporting framework applicable to the Group.

Other Information: Consolidated Directors' Report

Other information solely comprises the 2018 consolidated directors' report, the preparation of which is the responsibility of the Parent's Directors and which does not form an integral part of the consolidated annual accounts.

Our audit opinion on the consolidated annual accounts does not encompass the consolidated directors' report. Our responsibility regarding the information contained in the consolidated directors' report is defined in the legislation regulating the audit of accounts, which establishes two different levels for this information:

a) A specific level applicable to non-financial consolidated information, as well as certain information included in the Annual Corporate Governance Report, as defined in article 35.2. b) of the Audit Law 22/2015, which consists of merely verifying that this information has been provided in the directors' report, or where applicable, in a separate report corresponding to the same year and to which reference is made in the directors' report, and if not, report on this matter.

b) A general level applicable to the rest of the information included in the consolidated directors' report, which consists of assessing and reporting on the consistency of this information with the consolidated annual accounts, based on knowledge of the Group obtained during the audit of the aforementioned accounts and without including any information other than that obtained as evidence during the audit. Also, assessing and reporting on whether the content and presentation of this part of the consolidated directors' report are in accordance with applicable legislation. If, based on the work we have performed, we conclude that there are material misstatements, we are required to report them.

Based on the work carried out, as described above, we have verified that the information mentioned in a) above has been provided in the consolidated directors' report and that the rest of the information contained in the consolidated directors' report is consistent with that disclosed in the consolidated annual accounts for 2018 and the content and presentation of the report are in accordance with applicable legislation.

Directors' and Audit Committee's Responsibility for the Consolidated Annual Accounts

The Parent's Directors are responsible for the preparation of the accompanying consolidated annual accounts in such a way that they give a true and fair view of the consolidated equity, consolidated financial position and consolidated financial performance of the Group in accordance with IFRS-EU and other provisions of the financial reporting framework applicable to the Group in Spain, and for such internal control as they determine is necessary to enable the preparation of consolidated annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated annual accounts, the Parent's Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Parent's audit committee is responsible for overseeing the preparation and presentation of the consolidated annual accounts.

Auditor's Responsibilities for the Audit of the Consolidated Annual Accounts_

Our objectives are to obtain reasonable assurance about whether the consolidated annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with prevailing legislation regulating the audit of accounts in Spain will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence economic decisions of users taken on the basis of these consolidated annual accounts.

As part of an audit in accordance with prevailing legislation regulating the audit of accounts in Spain, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Parent's Directors.
- Conclude on the appropriateness of the Parent's Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated annual accounts, including the disclosures, and whether the consolidated annual accounts represent the underlying transactions and events in a manner that achieves a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated annual accounts. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee of the Parent regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Parent's audit committee with a statement that we have complied with the applicable ethical requirements, including those regarding independence, and to communicate with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the audit committee of the Parent, we determine those that were of most significance in the audit of the consolidated annual accounts of the current period and which are therefore the key audit matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Additional Report to the Audit Committee of the Parent

The opinion expressed in this report is consistent with our additional report to the Parent's audit committee dated 27 February 2019.

Contract Period

At their ordinary general meeting held on 25 May 2018, the shareholders appointed us as auditors of the Group for the year ended 31 December 2018.

Previously, we were appointed for a period of three years from 31 July 1990 to 1992, both inclusive, by consensus of the shareholders at their general meeting, and have been auditing the annual accounts since the year ended 31 July 1990.

KPMG Auditores, S.L.
Entered in the Spanish Official Register of Auditors (R.O.A.C.) with number S0702

(Signed on the original in Spanish)
David Hernanz Sayans
Entered in the Spanish Official Register of Auditors (R.O.A.C.) with number 20236

27 February 2019

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets

at 31 December 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Assets	31/12/18	31/12/17
Goodwill (note 7)	5,209,230	4,590,498
Other intangible assets (note 8)	1,385,537	1,269,342
Property, plant and equipment (note 9)	1,951,983	1,760,053
Investments in equity-accounted investees (note 10)	226,905	219,009
Non-current financial assets		
Non-current financial assets measured at fair value	7	47,046
Non-current financial assets not measured at fair value	107,594	22,843
Total non-current financial assets (note 11)	107,601	69,889
Deferred tax assets (note 27)	112,539	66,157
Total non-current assets	**8,993,795**	**7,974,948**
Inventories (note 12)	1,949,360	1,629,293
Trade and other receivables		
Trade receivables	269,167	286,198
Other receivables	92,418	40,681
Current income tax assets	42,205	59,531
Trade and other receivables (note 13)	403,790	386,410
Other current financial assets (note 11)		
Current financial assets measured at fair value	19,934	0
Current financial assets not measured at fair value	34,031	10,738
Total current financial assets (note 11)	53,965	10,738
Other current assets	42,344	32,354
Cash and cash equivalents (note 14)	1,033,792	886,521
Total current assets	**3,483,251**	**2,945,316**
Total assets	**12,477,046**	**10,920,264**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets (Continued)

at 31 December 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Equity and liabilities	31/12/18	31/12/17
Share capital	119,604	119,604
Share premium	910,728	910,728
Reserves	2,441,931	2,027,648
Treasury stock	(55,441)	(62,422)
Interim dividend	(136,747)	(122,986)
Profit for the year attributable to the Parent	596,642	662,700
Total equity	3,876,717	3,535,272
Available for sale financial assets	—	4,926
Other comprehensive Income	(554)	(656)
Translation differences	349,391	89,537
Other comprehensive expenses	348,837	93,807
Equity attributable to the Parent (note 15)	**4,225,554**	**3,629,079**
Non-controlling interests (note 17)	471,050	4,886
Total equity	**4,696,604**	**3,633,965**
Liabilities		
Grants (note 18)	11,845	11,822
Provisions (note 19)	6,114	5,763
Non-current financial liabilities (note 20)	6,099,463	5,901,815
Other non-current liabilities	1,301	—
Deferred tax liabilities (note 27)	404,398	388,912
Total non-current liabilities	**6,523,121**	**6,308,312**
Provisions (note 19)	80,055	106,995
Current financial liabilities (note 20)	277,382	155,070
Current debts with related companies	7,079	—
Trade and other payables		
Suppliers	561,883	423,096
Other payables	159,816	141,720
Current income tax liabilities	1,917	6,709
Total trade and other payables (note 21)	723,616	571,525
Other current liabilities (note 22)	169,189	144,397
Total current liabilities	**1,257,321**	**977,987**
Total liabilities	**7,780,442**	**7,286,299**
Total equity and liabilities	**12,477,046**	**10,920,264**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Profit and Loss

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/18	31/12/17	31/12/16
Continuing Operations			
Net revenue (notes 6 and 23)	4,486,724	4,318,073	4,049,830
Cost of sales	(2,437,164)	(2,166,062)	(2,137,539)
Gross Profit	**2,049,560**	**2,152,011**	**1,912,291**
Research and Development	(240,661)	(288,320)	(197,617)
Selling, General and Administration expenses	(814,775)	(860,348)	(775,266)
Operating Expenses	**(1,055,436)**	**(1,148,668)**	**(972,883)**
Operating Result	**994,124**	**1,003,343**	**939,408**
Finance income	13,995	9,678	9,934
Finance costs	(293,273)	(263,344)	(244,829)
Change in fair value of financial instruments	—	(3,752)	(7,610)
Impairment and gains /(losses) on disposal of financial instruments	30,280	(18,844)	—
Exchange differences	(8,246)	(11,472)	8,916
Finance result (note 26)	**(257,244)**	**(287,734)**	**(233,589)**
Share of losses of equity accounted investees (note 10)	(11,038)	(19,887)	6,933
Profit before income tax from continuing operations	**725,842**	**695,722**	**712,752**
Income tax expense (note 27)	(131,436)	(34,408)	(168,209)
Profit after income tax from continuing operations	**594,406**	**661,314**	**544,543**
Consolidated profit for the year	**594,406**	**661,314**	**544,543**
Profit attributable to the Parent	596,642	662,700	545,456
Loss attributable to non-controlling interest (note 17)	(2,236)	(1,386)	(913)
Basic earnings per share (Euros) (see note 16)	0.87	0.97	0.80
Diluted earnings per share (Euros) (see note 16)	0.87	0.97	0.80

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/18	31/12/17	31/12/16
Consolidated profit for the year	594,406	661,314	544,543
Items for reclassification to profit or loss			
Translation differences	268,557	(532,389)	103,833
Translation differences / Cash Flow Hedge	—	—	(6,809)
Available for sale financial Assets	—	10,145	(5,219)
Equity accounted investees (note 10) / Translation differences	(9,270)	(27,134)	10,671
Cash flow hedges—effective part of changes in fair value	—	—	14,501
Cash flow hedges—amounts taken to profit or loss	—	—	(7,426)
Other comprehensive income	102	(14)	(4,810)
Tax effect	—	—	(2,462)
Other comprehensive income for the year, after tax	**259,389**	**(549,392)**	**102,279**
Total comprehensive income for the year	**853,795**	**111,922**	**646,822**
Total comprehensive income attributable to the Parent	856,598	113,441	647,667
Total comprehensive expense attributable to the non-controlling interests	(2,803)	(1,519)	(845)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/2018	31/12/2017	31/12/2016
Cash flows from operating activities			
Profit before tax	**725,842**	**695,722**	**712,752**
Adjustments for:	**454,378**	**556,792**	**391,986**
Amortization and depreciation (note 25)	228,609	215,490	201,869
Other adjustments:	225,769	341,302	190,117
(Profit) / losses on equity accounted investments (note 10)	11,038	19,888	(6,933)
Impairment of assets and net provision charges	(23,657)	66,047	(23,079)
(Profit) / losses on disposal of fixed assets (note 8 and 9)	(6,700)	1,551	(2,987)
Government grants taken to income (note 18)	(1,166)	(286)	(1,681)
Finance cost / (income)	232,962	263,657	236,034
Other adjustments	13,292	(9,555)	(11,237)
Change in operating assets and liabilities	**(112,639)**	**(65,800)**	**(164,319)**
Change in inventories	(231,670)	(165,508)	(173,003)
Change in trade and other receivables	(13,141)	80,112	(25,180)
Change in current financial assets and other current assets	(3,092)	(2,691)	(2,610)
Change in current trade and other payables	135,264	22,287	36,474
Other cash flows used in operating activities	**(330,153)**	**(344,968)**	**(387,141)**
Interest paid	(225,146)	(207,079)	(180,497)
Interest recovered	6,862	9,492	8,685
Income tax (paid) / received	(111,585)	(147,015)	(215,329)
Other recovered (paid)	(284)	(366)	—
Net cash from operating activities	**737,428**	**841,746**	**553,278**
Cash flows from investing activities			
Payments for investments	**(852,536)**	**(2,209,667)**	**(509,078)**
Group companies, associates and business units (notes 3, 2 (b) and 10)	(524,081)	(1,857,210)	(202,727)
Property, plant and equipment and intangible assets	(307,722)	(322,973)	(292,690)
Property, plant and equipment	(231,983)	(251,507)	(249,416)
Intangible assets	(75,739)	(71,466)	(43,274)
Other financial assets	(20,733)	(29,484)	(13,661)
Proceeds from the sale of investments	**70,669**	**23,787**	**2,426**
Property, plant and equipment	550	762	2,426
Other financial assets	70,119	23,025	—
Net cash used in investing activities	**(781,867)**	**(2,185,880)**	**(506,652)**
Cash flows from financing activities			
Proceeds from and payments for equity instruments	—	—	(11,766)
Payments for treasury stock (note 15 (d))	—	—	(12,686)
Sales of treasury stock (note 15 (d))	—	—	920
Proceeds from and payments for financial liability instruments	37,418	1,808,771	(80,149)
Issue	179,350	1,912,615	81,513
Redemption and repayment	(141,932)	(103,844)	(161,662)
Dividends and interest on other equity instruments	(275,783)	(218,260)	(216,151)
Dividends paid	(278,841)	(218,260)	(216,151)
Dividends received	3,058	—	—
Other cash flows from / (used in) financing activities	4,661	(156,446)	(21,492)
Financing costs included on the amortised costs of the debt	—	(142,288)	—
Other amounts from / (used in) financing activities	4,661	(14,158)	(21,492)
Transaction with minority interests with no loss of control (note 3)	386,207	—	—
Net cash from/(used in) financing activities	**152,503**	**1,434,065**	**(329,558)**
Effect of exchange rate fluctuations on cash	**39,207**	**(98,419)**	**35,441**
Net increase in cash and cash equivalents	**147,271**	**(8,488)**	**(247,491)**
Cash and cash equivalents at beginning of the year	**886,521**	**895,009**	**1,142,500**
Cash and cash equivalents at year end	**1,033,792**	**886,521**	**895,009**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2015	119,604	910,728	1,371,061	532,145	(119,615)	(58,575)	534,491	—	3,035	3,329	3,296,203	5,187	3,301,390
Translation differences	—	—	—	—	—	—	114,436	—	—	—	114,436	68	114,504
Available for sale financial assets	—	—	—	—	—	—	—	(5,219)	—	—	(5,219)	—	(5,219)
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	(3,329)	(3,329)	—	(3,329)
Other comprehensive income	—	—	—	—	—	—	—	—	(3,677)	—	(3,677)	—	(3,677)
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	114,436	(5,219)	(3,677)	(3,329)	102,211	68	102,279
Profit/(loss) for the year	—	—	—	545,456	—	—	—	—	—	—	545,456	(913)	544,543
Total comprehensive income / (expense) for the year	—	—	—	545,456	—	—	114,436	(5,219)	(3,677)	(3,329)	647,667	(845)	646,822
Net change in treasury stock (note 15 (d))	—	—	(182)	—	—	(10,135)	—	—	—	—	(10,317)	—	(10,317)
Acquisition of non-controlling interests (note 15 (c))	—	—	(2,737)	—	—	—	—	—	—	—	(2,737)	2,737	—
Other changes	—	—	6,816	—	—	—	—	—	—	—	6,816	(582)	6,234
Interim dividend	—	—	—	—	(122,908)	—	—	—	—	—	(122,908)	—	(122,908)
Distribution of 2015 profit													
Reserves	—	—	319,287	(319,287)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(93,243)	—	—	—	—	—	—	(93,243)	—	(93,243)
Interim dividend	—	—	—	(119,615)	119,615	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	323,184	(532,145)	(3,293)	(10,135)	—	—	—	—	(222,389)	2,155	(220,234)

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity (Continued)

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2016	119,604	910,728	1,694,245	545,456	(122,908)	(68,710)	648,927	(5,219)	(642)	—	3,721,481	6,497	3,727,978
Translation differences	—	—	—	—	—	—	(559,390)	—	—	—	(559,390)	(133)	(559,523)
Available for sale financial assets	—	—	—	—	—	—	—	10,145	—	—	10,145	—	10,145
Other comprehensive income	—	—	—	—	—	—	—	—	(14)	—	(14)	—	(14)
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	(559,390)	10,145	(14)	—	(549,259)	(133)	(549,392)
Profit/(loss) for the year	—	—	—	662,700	—	—	—	—	—	—	662,700	(1,386)	661,314
Total comprehensive income / (expense) for the year	—	—	—	662,700	—	—	(559,390)	10,145	(14)	—	113,441	(1,519)	111,922
Net change in treasury stock (note 15 (d))	—	—	—	—	—	6,288	—	—	—	—	6,288	—	6,288
Acquisition of non-controlling interests (note 15 (c))	—	—	(346)	—	—	—	—	—	—	—	(346)	(43)	(389)
Other changes	—	—	6,475	—	—	—	—	—	—	—	6,475	(49)	6,426
Interim dividend	—	—		—	(122,986)	—	—	—	—	—	(122,986)	—	(122,986)
Distribution of 2016 profit													
Reserves	—	—	422,548	(422,548)	—	—	—	—	—	—	—	—	—
Dividends	—	—	(95,274)	—	—	—	—	—	—	—	(95,274)	—	(95,274)
Interim dividend	—	—	—	(122,908)	122,908	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	333,403	(545,456)	(78)	6,288	—	—	—	—	(205,843)	(92)	(205,935)
Balance at 31 December 2017	119,604	910,728	2,027,648	662,700	(122,986)	(62,422)	89,537	4,926	(656)	—	3,629,079	4,886	3,633,965
Impact of new IFRS (note 2)	—	—	29,562	—	—	—	—	(4,926)	—	—	24,636	—	24,636
Balance at 31 December 2017 adjusted	119,604	910,728	2,057,210	662,700	(122,986)	(62,422)	89,537	0	(656)	0	3,653,715	4,886	3,658,601
Translation differences	—	—	—	—	—	—	259,854	—	—	—	259,854	(567)	259,287
Other comprehensive income	—	—	—	—	—	—	—	—	102	—	102	—	102
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	259,854	—	102	—	259,956	(567)	259,389
Profit/(loss) for the year	—	—	—	596,642	—	—	—	—	—	—	596,642	(2,236)	594,406
Total comprehensive income / (expense) for the year	—	—	—	596,642	—	—	259,854	—	102	—	856,598	(2,803)	853,795

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity (Continued)

for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Net change in treasury stock (note 15 (d))	—	—	—	—	—	6,981	—	—	—	—	6,981	—	6,981
Acquisition / Divestment of non-controlling interests (note 15 (c))	—	—	(3,462)	—	—	—	—	—	—	—	(3,462)	469,010	465,548
Other changes	—	—	(9,437)	—	—	—	—	—	—	—	(9,437)	(43)	(9,480)
Interim dividend	—	—		—	(136,747)	—	—	—	—	—	(136,747)	—	(136,747)
Distribution of 2017 profit:													
Reserves	—	—	539,714	(539,714)	—	—	—	—	—	—	—	—	—
Dividends	—	—	(142,094)	—	—	—	—	—	—	—	(142,094)	—	(142,094)
Interim dividend	—	—	—	(122,986)	122,986	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	384,721	(662,700)	(13,761)	6,981	—	—	—	—	(284,759)	468,967	184,208
Balance at 31 December 2018	119,604	910,728	2,441,931	596,642	(136,747)	(55,441)	349,391	—	(554)	—	4,225,554	471,050	4,696,604

(1) Nature, Principal Activities and Subsidiaries

Grifols, S.A. (hereinafter the Company) was incorporated with limited liability under Spanish law on 22 June 1987. Its registered and tax offices are in Barcelona. The Company's statutory activity consists of providing corporate and business administrative, management and control services, as well as investing in assets and property. Its principal activity involves rendering administrative, management and control services to its subsidiaries.

On 17 May 2006 the Company completed its flotation on the Spanish securities market, which was conducted through the public offering of 71,000,000 ordinary shares of Euros 0.50 par value each and a share premium of Euros 3.90 per share. The total capital increase (including the share premium) amounted to Euros 312.4 million, equivalent to a price of Euros 4.40 per share.

The Company's shares were floated on the Spanish stock exchange IBEX-35 index on 2 January 2008.

All of the Company's shares are listed on the Barcelona, Madrid, Valencia and Bilbao securities markets and on the Spanish Automated Quotation System (SIBE/Continuous Market). On 2 June 2011, Class B non-voting shares were listed on the NASDAQ (USA) and on the Spanish Automated Quotation System (SIBE/Continuous Market).

Grifols, S.A. is the Parent of the subsidiaries listed in Appendix I of this note to the consolidated annual accounts.

Grifols, S.A. and subsidiaries (hereinafter the Group) act on an integrated basis and under common management and their principal activity is the procurement, manufacture, preparation and sale of therapeutic products, especially haemoderivatives.

The main factory locations of the Group's Spanish companies are in Parets del Vallés (Barcelona) and Torres de Cotilla (Murcia), while the US companies are located in Los Angeles (California), Clayton (North Carolina), Emeryville (California), and San Diego (California).

The Company aims to reinforce its strategic presence in China. In this regards, Grifols is currently in talks with Shangai RAAS Blood Products to explore a possible corporate transaction and reached an agreement with Boya-Pharmaceutical to open plasma centers in China.

(2) Basis of Presentation

The consolidated annual accounts have been prepared on the basis of the accounting records of Grifols, S.A. and of the Group companies. The consolidated annual accounts for 2018 have been prepared under International Financial Reporting Standards as issued by the European Union (IFRS-EU) which for Grifols Group purposes, are identical to the standards as endorsed by the International Financial Reporting Standards as adopted by the International Accounting Standard Board (IFRS-IASB) to present fairly the consolidated equity and consolidated financial position of Grifols, S.A. and subsidiaries at 31 December 2018, as well as the consolidated results from their operations, consolidated cash flows and consolidated changes in equity for the year then ended.

These consolidated annual accounts for 2018 show comparative figures for 2017 and voluntarily show figures for 2016 from the consolidated statement of profit and loss, consolidated statement of comprehensive income consolidated statement of changes in equity and consolidated statement of cash flows and their corresponding notes thereto.

The Group adopted IFRS-EU for the first time on 1 January 2004 and has been preparing its annual accounts under International Financial Reporting Standards, as adopted by the European Union (IFRS-EU) as required by capital market regulations governing the presentation of financial statements by companies whose debt or own equity instruments are listed on a regulated market.

The Board of Directors of Grifols, S.A. considers that these consolidated annual accounts of 2018 authorized for issue at their meeting held on 22 February 2019, will be approved by the shareholders without any modifications.

(2) Basis of Presentation (Continued)

In accordance with the provision of section 357 of the Irish Companies Act 2014, the Company has irrevocably guaranteed all liabilities of an Irish subsidiary undertaking, Grifols Worldwide Operations Limited (Ireland) (see Appendix I), for the financial year ended 31 December 2018 as referred to in subsection 1(b) of that Act, for the purposes of enabling Grifols Worldwide Operations Limited to claim exemption from the requirement to file their own annual accounts in Ireland.

(a) Relevant accounting estimates, assumptions and judgments used when applying accounting principles

The preparation of the consolidated annual accounts in conformity with IFRS-EU requires management to make judgments, estimates and assumptions that affect the application of Group accounting policies. The following notes include a summary of the relevant accounting estimates and judgments used to apply accounting policies which have the most significant effect on the amounts recognized in the consolidated annual accounts.

- Assumptions used to test non-current assets and goodwill for impairment. Relevant cash generating units are tested annually for impairment. These are based on risk-adjusted future cash flows discounted using appropriate interest rates. The key assumptions used are specified in note 7. Assumptions relating to risk-adjusted future cash flows and discount rates are based on business forecasts and are therefore inherently subjective. Future events could cause a change in business forecasts, with a consequent adverse effect on the future results of the Group. To the extent considered a reasonably possible change in key assumptions could result in an impairment of goodwill, a sensitivity analysis has been disclosed to show the effect of changes to these assumptions and the effect of the cash generating unit (CGU) on the recoverable amount.
- Determination the fair value of assets, liabilities and contingent liabilities related to business combinations. Details of the fair value methods used by the Group are provided in note 3.
- Evaluation of the capitalization of development costs (see note 4(h)). The key assumption is related to the estimation of sufficient future economic benefits of the projects.
- Evaluation of provisions and contingencies. Key assumptions relate to the evaluation of the likelihood of an outflow of resources due to a past event, as well as to the evaluation of the best estimate of the likely outcome. These estimates take into account the specific circumstances of each dispute and relevant external advice and therefore are inherently subjective and could change substantially over time as new facts arise and each dispute progresses. Details of the status of various uncertainties involved in significant unresolved disputes are set out in note 29.
- Evaluation of the recoverability of tax credits, including tax loss carryforwards and rights for deductions. Deferred tax assets are recognized to the extent that future taxable profits will be available against which the temporary differences can be utilized, based on management's assumptions relating to the amount and timing of future taxable profits (see notes 4(t) and 27).
- Analysis that the refinancing of debt and bonds does not result in a new financial liability.

No changes have been made to prior year judgments relating to existing uncertainties.

The Group is also exposed to interest rate and currency risks. Refer to sensitivity analysis in note 30.

(b) Basis of consolidation

Appendix I shows details of the percentages of direct or indirect ownership of subsidiaries by the Company at 31 December 2018, 2017 and 2016, as well as the consolidation method used in each case for preparation of the accompanying consolidated annual accounts.

Subsidiaries in which the Company directly or indirectly owns the majority of equity or voting rights have been fully consolidated. Associates in which the Company owns between 20% and 50% of share capital

(2) Basis of Presentation (Continued)

and over which it has no control but does have significant influence, have been accounted for under the equity method.

Although the Group holds 30% of the shares with voting rights of Grifols Malaysia Sdn Bhd, it controls the majority of the economic and voting rights of Grifols Malaysia Sdn Bhd through a contract with the other shareholder and a pledge on its shares. As a consequence it has been fully consolidated.

Grifols (Thailand) Ltd. has two classes of shares and it grants the majority of voting rights to the class of shares held by the Group. As a consequence it has been fully consolidated.

Changes in associates and jointly controlled entities are detailed in note 10.

Changes in subsidiaries

In 2018:

- On 28 December 2018, Grifols sold Biotest US Corporation and Haema AG to Scranton Enterprises B.V. for a global amount of US Dollars 538,014 thousand. Scranton is an existing shareholder of Grifols (see note 3(b)).
- On 1 August 2018, Grifols, through its subsidiary Grifols Shared Services North America, Inc. has completed the acquisition of 100% of the shares in Biotest US Corporation for a price of US Dollars 286,454 thousand, after obtaining the consent of the US Federal Trade Commission (see note 3).
- On 19 March 2018, Grifols entered into an agreement with Aton GmbH for the purchase of 100% of the shares of German based pharmaceutical company Haema AG, in exchange for a purchase price of Euros 220,191 thousand on a debt free basis. The closing of this transaction took place in June 2018 (see note 3).
- On 26 January 2018, Grifols through its subsidiary Grifols Shared Services North America, Inc, suscribed a capital increase in the amount of US Dollars 98 million in the U.S company Goetech LLC, based in Denver, Colorado, trading as Medkeeper. As a result, Grifols holds a 54.76% interest in Medkeeper. Grifols and a majority position on the board of directors.
- On 12 January 2018 the Group acquired the remaining 50% of the voting rights of Aigües Minerals de Vilajuïga, S.A. and consequently Grifols holds 100% of the voting rights for a total amount of Euros 550 thousand.

In 2017:

- On 4 December 2017, Progenika Biopharma, S.A., transferred the total shares of Abyntek Biopharma, S.L. to a third party. No profit or loss was recognized on this transaction.
- On 11 October 2017, Grifols Diagnostic Solutions, Inc. acquired an additional 0.98% interest in Progenika Biopharma, S.A. from its non-controlling interests for a total amount of Euros 644 thousand in the form of a cash payment. As a result, Grifols owed 90.23% of Progenika's share capital at 31 December 2017.
- On 24 July 2017, Grifols acquired an additional 40% interest in Kiro Grifols, S.L. for a purchase price of Euros 12.8 million. With this new acquisition, Grifols reached a 90% interest in equity of Kiro Grifols S.L. (see note 3(b)).
- On 13 March 2017, Progenika Latina, S.A. de C.V., was wound up. The assets and liabilities of Progenika Latina. S.A. de C.V were integrated into Progenika Biopharma, S.A.
- On 31 January 2017, Grifols closed the transaction for the asset purchase agreement to acquire Hologic's business of NAT (Nucleic Acid Testing) donor screening unit, previously agreed on 14 December 2016, for a total amount of US Dollars 1,865 million (see note 3(a)).
- On 5 January 2017, the Group incorporated a new company called Chiquito Acquisition Corp.

(2) Basis of Presentation (Continued)

- With effect as of 1 January 2017, Grifols Diagnostic Solutions, Inc. and Progenika, Inc. entered into a merger agreement. The surviving company was Grifols Diagnostic Solutions, Inc.

In 2016 Grifols incorporated the following companies:

- PBS Acquisition Corp. (USA)
- Grifols Diagnostics Equipment Taiwan Limited (Taiwan)
- Grifols Innovation and New Technologies Limited (Ireland)
- On 12 December 2016, the Group company Grifols Innovation and New Technologies Limited subscribed to an increase in the share capital of VCN Biosciences, S.L. amounting to Euros 5 million. Following this capital increase, Grifols' interest rose to 81.34% in 2016. Grifols subscribed to another capital increase on 16 November 2015 through the Group company Gri-Cel, S.A. for an amount of Euros 2,549 thousand (see note 3 (d)).
- With effect as of 1 November 2016, Grifols Brasil, Lda. and Gri-Cei, S.A. Produtos para Trasfusao entered into a merger agreement. The surviving company was Grifols Brasil, Lda.
- In August 2016 and July 2015 Araclon Biotech, S.L. carried out two share capital increases of Euros 6.7 million and Euros 6 million, respectively. After the latter capital increase Grifols' interest rose to 73.22% (see note 15 (c)).
- In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG. in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After this acquisition, Grifols' interest rose to 100%.
- On 3 March, 2016 the Group executed the call option on 32.93% of the shares in Progenika Biopharma, S.A. for Euros 25 million following the exercise of call and put options agreed in February 2013. Grifols paid 50% of this investment in Grifols B shares (876,777 shares) and the remaining 50% in cash. The Group guaranteed the selling shareholders the option to repurchase the Class B shares during the first five days following the sale date. As a result of this transaction, Grifols owns 89.25% of Progenika Biopharma, S.A.'s share capital at 31 December 2016.
- With effect as of 1 January 2016, Progenika Biopharma, S.A. and Brainco Biopharma, S.L. entered into a merger agreement. The surviving company was Progenika Biopharma, S.A.

(c) Amendments to IFRS in 2018, 2017 and 2016

In accordance with IFRS, the following should be noted in connection with the scope of application of IFRS and the preparation of these consolidated annual accounts of the Group.

(2) Basis of Presentation (Continued)

Effective date in 2016

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 16 IAS 38 . .	Clarification of Acceptable Methods of Depreciation and Amortisation (issued on 12 May 2014)	1 January 2016	1 January 2016
IFRS 11	Accounting for Acquisitions of Interests in Joint Operations (issued on 6 May 2014)	1 January 2016	1 January 2016
IAS 27	Equity Method in Separate Financial Statements (issued on 12 August 2014)	1 January 2016	1 January 2016
Various	Annual Improvements to IFRSs 2012-2014 cycle (issued on 25 September 2014)	1 January 2016	1 January 2016
IAS 1	Disclosure Initiative (issued on 18 December 2014)	1 January 2016	1 January 2016

Effective date in 2017

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 12	Recognition of Deferred Tax Assets for Unrealized Losses (issued on 19 January 2016)	1 January 2017	1 January 2017
IAS 7	Disclosure Initiative (issued on 29 January 2016)	1 January 2017	1 January 2017
Various	Annual improvements to IFRSs 2014-2016 cycle (issued on 8 December 2016)—IFRS 12	1 January 2017	1 January 2017

Effective date in 2018

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IFRS 15	Revenue from contracts with Customers (issued on 28 May 2014)	1 January 2018	1 January 2018
IFRS 15	Clarification to IFRS15 Revenue from Contracts with Customers (issued on 12 April 2016)	1 January 2018	1 January 2018
IFRS 9	Financial instruments (issued on 24 July 2014)	1 January 2018	1 January 2018
IFRS 2	Classification and Measurement of Share-based Payment Transactions (issued on 20 June 2016)	1 January 2018	1 January 2018
IFRS 4 IFRS 9 .	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts (issued on 12 September 2016)	1 January 2018	1 January 2018
IFRIC 22	IFRIC 22 Interpretation: Foreign currency translations and Advance Consideration (issued on 8 December 2016)	1 January 2018	1 January 2018
IAS 40	Amendments to IAS 40: Transfers of Investment Property (issued on 8 December 2016)	1 January 2018	1 January 2018
Various	Annual improvements to IFRSs 2014-2016 cycle (issued on 8 December 2016)	1 January 2018	1 January 2018

(2) Basis of Presentation (Continued)

The application of these standards and interpretations has had some impacts on these consolidated annual accounts, which are detailed below:

IFRS 9 Financial Instruments

IFRS 9 Financial Instruments was applied on 1 January, 2018 without any restatements of the comparative figures relative for the prior year. The impacts of the first-time adoption, recognized directly in equity, are as follows:

- *Classification and measurement of financial assets*:

In general terms, based on the analysis of the new classification based on the business model, the majority of financial assets have continued to be measured at amortized cost, the main exception being equity instruments, which are measured at fair value through profit or loss.

- *Impairment of financial assets*:

For trade receivables the Group uses the simplified approach, estimating lifetime expected credit losses, while for all other financial assets the Group has used the general approach for calculating expected credit losses. In both cases, due to the customers' credit rating, as well as the internal classification systems currently in place for new customers, and considering that collection periods are mostly under 30 days, the adoption of IFRS 9 does not have a significant impact.

- *Modification or exchanges of financial liabilities that do not result in derecognition of liabilities*

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the new modified cash flows, discounted at the original effective interest rate of the liability.

IFRS 9 must be applied retrospectively as of 1 January 2018, therefore any gains or losses from the modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 have been recognized in reserves at that date and the comparative period has not been re-expressed. Grifols has retrospectively calculated the impact of adopting IFRS 9 on the refinancing of its senior debt and unsecured senior corporate notes in 2014 and 2017. As a result of these new calculations, the 2014 refinancing of both debts did not cause the derecognition of the respective liabilities, therefore generating an adjustment to profit and loss in that year. Considering the retroactive adjustment generated in 2014, the 2017 refinancing of senior debt did not result in the derecognition of the financial liability either. However, the refinancing of the unsecured senior corporate notes led to derecognition of the liability as it did not pass the new quantitative test. The adoption of IFRS 9 has entailed a positive impact on reserves of Euros 24,636 thousand.

Details of the impacts on reserves due to the application of IFRS 9 application are as follows:

	Thousand of Euros		
Senior Unsecured Noted	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	853,667	1,000,000	146,333
Deferred Expenses			(41,035)
Negative Impact in reserves			105,298

(2) Basis of Presentation (Continued)

	Thousand of Euros		
Senior Secured Debt	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	3,375,157	3,226,244	(148,913)
Deferred Expenses			18,979
Positive impact in reserves			(129,934)

	Thousand of Euros		
Total Impact	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	4,228,824	4,226,244	(2,580)
Deferred Expenses			(22,056)
Positive impact in reserves			(24,636)

IFRS 15 Revenue from Contracts with Customers.

IFRS 15 provides a framework that replaces the previous guides on revenue recognition. According to the new criteria, a five-step model should be used to determine the timing and amounts of revenue recognition:

Step 1: Identify the contract.

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognize revenue.

This new model specifies that revenue should be recognized when (or as) control of the goods or services is transferred from an entity to customers, for the amount the entity expects to be entitled to receive. Depending on whether certain criteria are met, revenue is recognized over time, reflecting that the entity has satisfied the performance obligation, or at a point in time, when control of the goods or services is transferred to customers.

Based on the analysis and implementation at 1 January 2018, there has been no impact from adopting IFRS 15 Revenue from Contracts with Customers.

(2) Basis of Presentation (Continued)

Standards issued but not effective in 2018

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IFRS 16	Leases (Issued on 13 January 2016)	1 January 2019	1 January 2019
IFRIC 23	Uncertainty over Income Tax Treatments (issued on 7 June 2017)	1 January 2019	1 January 2019
IFRS 9	Amendment to IFRS 9: Prepayment Features with Negative Compensation (issued on 12 October 2017)	1 January 2019	1 January 2019
IAS 28	Amendment to IAS 28: Long-term interests in Associates and Joint Ventures (issued on 12 October 2017)	1 January 2019	pending
Various	Annual Improvements to IFRS Standards 2015-2017 Cycle (issued on 12 December 2017)	1 January 2019	pending
IFRS 17	Insurance Contracts (issued on 18 May 2017)	1 January 2021	pending
IAS 19	Amendment to IAS19: Plan Amendment, Curtailment or Settlemet (issued on 7 February 2018)	1 January 2019	pending
IFRS 3	Amendment to IFRS 3: Definition of a business (issued on 22 October 2018)	1 January 2020	pending
IAS 1 IAS 8	Amendments to IAS 1 and IAS 8: Definition of material (issued on 31 October 2018)	1 January 2020	pending
IFRS 1	Amendments to the Conceptual Framework for Financial Reporting (issued on 29 March 2018)	1 January 2020	pending

The application of these standards and interpretations, except for IFRS 16 "Leases", is not expected to have any significant impacts on the consolidated annual accounts.

IFRS 16 "Leases"

IFRS 16 brings in a single model for lease accounting by lessees in the statement of financial position. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are optional exemptions for short-term leases and leases of low value items. Lessor accounting remains similar to the current standard. Lessors continue to classify leases as finance or operating leases.

IFRS 16 replaces existing guidance on leases, including IAS 17 Leases, IFRIC 4 Determining whether an arrangement contains a lease, SIC-15 Operating leases—Incentives and SIC-27 Evaluating the substance of transactions involving the legal form of a lease.

IFRS 16 is mandatory for all financial years starting on or after 1 January 2019. It may be adopted in advance by companies that already use IFRS 15 Revenue from contracts with customers prior to the date of first-time application of IFRS 16. The Group will first-time adopt IFRS 16 on 1 January 2019 and is in the process of estimating the impact on the consolidated annual accounts. The main policies, estimates and criteria for the application of IFRS 16 are as follows:

- Scope: this IFRS 16 evaluation considers all the contracts in which the Group acts as lessee, except for the contracts between Group companies and the cancelable contracts.
- Transition approach: The Group has opted to implement IFRS 16 using the modified retrospective approach, whereby the right-of-use asset is measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognized in

(2) Basis of Presentation (Continued)

the consolidated statement of financial position immediately before the date of initial application. When applying this modified retrospective approach, the Group does not re-express the comparative information.

- Discount rates: For financial lease contracts, Grifols will discount lease payments using the implicit interest rate. For operating lease agreements, lease payments will be discounted using the incremental borrowing rate. The incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment.

An incremental effective interest rate has been applied and varies from 2.07% to 8.18% depending on the geographical area and the term of the lease agreement at the date of initial application.

- Lease term for each agreement: The term considered for the leases depends, fundamentally, on whether or not the lease contract contains a period of mandatory compliance, as well as unilateral termination and or renewal clauses that grant the Group the right to terminate early or to extend the agreements.

The Group leases several buildings, equipment and vehicles. Leases agreements are usually made for fixed periods, as shown below:

	Average lease term
Real Estate and land	10 to 15 years
Donor centers	13 to 15 years
PC's and hardware	3 to 5 years
Machinery	4 to 5 years
Vehicles	3 to 5 years

The lease terms of the agreements are negotiated on an individual basis and contain a wide range of terms and conditions.

- Accounting policies applied during transition: The Group has employed the following practical solutions when applying the simplified method to leases previously carried as operating leases under IAS 17 Leases:
  - Non-application of IFRS 16 to agreements that were not previously deemed to contain a lease under IAS 17 and IFRIC 4 "Determining whether an arrangement contains a lease".
  - Exclusion of the initial direct costs from the measurement of the right-of-use asset on the date of first-time adoption.
  - Exclusion of leases that expire within 12 months as from the date of first-time adoption.
  - Exclusion of leases in which the underlying asset has a low value.
- Estimated effect of adoption: At 1 January 2019, the Group has non-cancellable operating lease commitments of Euros 400,579 thousand for buildings and warehouses (see note 28). Of these commitments, approximately Euros 4,822 thousand of these commitments relate to short-term leases which will be recognized on a straight-line basis as expense in profit and loss. For the remaining lease commitments, the Group expects to recognise right-of-use assets of approximately Euros 648,345 thousand at 1 January, 2019 (after adjustments for prepayments, dismantling costs and accrued lease payments recognized as at 31 December 2018 by an amount of approximately Euros 16,898 thousand) and lease liabilities of Euros 664,948 thousand.

(2) Basis of Presentation (Continued)

- Total net assets will be approximately Euros 16,603 thousand lower, and net current assets will be Euros 43,318 thousand lower due to, mainly, the presentation of a portion of the liability as a current liability.

The Group expects net profit before tax to fall by approximately Euros 15,500 thousand in 2019 due to the adoption of the new Standard for the lease agreements for buildings and warehouses. EBITDA is expected to increase by approximately Euros 60,281 thousand, as the operating lease payments were included in EBITDA but the amortisation charges on right-of-use assets and interest on the lease liability are excluded from this measurement.

Operating cash flows will increase and cash flows from financing will decrease by approximately Euros 60,281 thousand, since the repayment of principal on the lease liabilities and interest will be classified as cash flows from financing activities.

In addition, Grifols has performed the reconciliation of lease liabilities for buildings and warehouses in relation to leases which had previously been classified as operating leases under IAS 17 (related to non-cancelable agreements and renewals) and lease liabilities under IFRS 16:

	01/01/2019
	Thousands of Euros
Operating lease commitments existing as at 31 December 2018	400,579
Periods covered by an option to extend the lease by the Group	579,261
Discounting using the Group's incremental borrowing rate	(311,116)
finance lease liabilities recognised as at 31 December 2018	1,395
Short-term leases recognised on a straight-line basis as expense	(4,822)
Others	(349)
Lease liability recognised as at 1 January 2019	664,948

The Group's activities as a lessor are immaterial, and therefore the Group does not expect any significant impact on the consolidated annual accounts.

(3) Business Combinations

2018

(a) Acquisition of assets used in donor centers from Kedplasma

In August and December of 2018, Grifols through its company Biomat USA, Inc. acquired the assets used in the operation of six donor centers from Kedplasma LLC. The purchase price agreed was Euros 20,939 thousand and Euros 21,841 thousand, respectively. These amounts have been provisionally allocated to goodwill in the consolidated balance sheet, considering that the initial accounting has not been completed at the end of the reporting period.

(b) Biotest Acquisition

On 1 August 2018, Grifols, through its subsidiary Grifols Shared Services North America, Inc. completed the acquisition of 100% of the shares in Biotest US Corporation for a price of US Dollars 286,454 thousand, after obtaining the consent of the US Federal Trade Commission. Grifols has acquired the shares from Biotest Divestiture Trust.

Biotest USA owns a plasma collection business in the USA with 24 plasma collection centers throughout the territory. In the preceding financial year, it obtained approximately 850,000 liters of plasma.

(3) Business Combinations (Continued)

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date are provided below:

	Thousands of Euros	Thousands of US Dollars
Total business combination cost	245,126	286,454
Fair value of net assets acquired	114,463	133,761
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	**130,663**	**152,693**

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities were as follows:

	Fair value	
	Thousands of Euros	Thousands of US Dollars
Cash and cash equivalents	5,876	6,867
Trade and other receivables	15,114	17,663
Inventories	18,235	21,309
Other assets	2,438	2,849
Intangible assets (note 8)	19,511	22,800
Goodwill	5,571	6,510
Property, Plant and equipment (note 9)	22,190	25,931
Deferred tax assets	33,917	39,635
Financial assets	10,975	12,825
Total assets	133,827	156,389
Trade and other payables	(5,322)	(6,219)
Other liabilities	(4,249)	(4,965)
Deferred tax liability	(4,878)	(5,700)
Long-term liabilities	(4,915)	(5,744)
Total liabilities and contingent liabilities	(19,364)	(22,628)
Total net assets acquired	114,463	133,761
Goodwill (note 7)	130,663	152,693
Total business combination cost	245,126	286,454

The resulting goodwill has been allocated to the Bioscience segment.

If the acquisition had taken place on 1 January 2018, the net amount of the Group´s revenue and profit would have increased by Euros 90,216 thousand and Euros 5,592 thousand, respectively.

The revenue and profit of Biotest between the acquisition date and 31 December 2018 amounted to Euros 73,747 thousand and Euros 7,473 thousand, respectively.

On 28 December 2018, Grifols sold Biotest US Corporation and Haema AG to Scranton Enterprises B.V. for the global amount of US Dollars 538,014 thousand (see note 1), Scranton is an existing shareholder of Grifols (see note 31). The current sale of Biotest and Haema to Scranton took place for the same price, at the current US Dollar/Euro exchange rate, and under the same terms and conditions existing when Grifols acquired both companies.

The sale of Biotest and Haema has not resulted in a loss of control for the Group. In assessing the existence of control, Grifols has considered the potential voting rights to determine whether it has power

(3) Business Combinations (Continued)

and therefore control. The Group holds potential voting rights arising from the repurchase options of the shares and they are substantive, based on the following:

- The sale contract includes a call option for Grifols which grants the irrevocable and exclusive right (not an obligation) to be able to acquire the shares sold to Scranton (both at the same time) at any time from the effective date of sale.
- The purchase option has been negotiated jointly in the same sale agreement of the entities.
- The price of exercising the call option will be equal to the higher of: a) the price at which Grifols sold them plus costs incurred in the transaction and plus the increase in working capital and (b) the amount of the debt that Scranton owns the date on which Grifols exercises the option (principal plus interest plus any other cost to be able to cancel said loan). Considering that the projections for the entities are for growth and an improvement in their results is expected, it is concluded that said call option is "in the money" since their market price is estimated to be higher than that agreed in the call option.
- Even if a nullity clause on the call option is included in the case of default by the buyer (standard clause included in financing agreements), it has been considered remote since Grifols will have the capacity to exercise said call option in the remediation period of 90 days.
- There are no agreements between shareholders that establish that the relevant decisions are approved in a different manner than by majority vote.
- There is a commitment from Grifols to provide support services in the plasma collection business of the donation centers for their subsequent sale and thus ensure that these companies will continue to operate effectively, as well as ensuring the continuity and growth of said entities. Likewise, there is a "Plasma Supply Agreement" agreement whereby the plasma to be produced by these entities will be almost entirely to meet the needs of Grifols. There is no exclusivity of sale.

The aforementioned are indicators of Grifols' power over these entities, even after their sale, considering that the repurchase options are susceptible to being exercised and Grifols would have the financial capacity to carry them out.

Consequently, the sale of the entities does not result in a loss of control, which is why the entities continue to consolidate, recording the sale as a transaction in equity without any impact on the consolidated statements of profit and loss.

(c) Haema AG

On 19 March 2018, Grifols has entered into an agreement with Aton GmbH for the purchase of 100% of the shares of the German based pharmaceutical company Haema AG, in exchange for a purchase price of Euros 220,191 thousand on a debt free basis. This transaction was closed in June 2018.

With this acquisition, and subject to the conditions being met, Grifols will acquire Haema's business, based on the collection of plasma for fractionation, which includes 35 plasma collection centers located throughout Germany, and three more centers under construction. Haema's headquarters are located in Leipzig measuring approximately 24,000 m^2 (which include administration, production, storage and power station buildings) and also has a central laboratory in Berlin.

Haema employs about 1,100 people and collected almost 800,000 liters of plasma in the preceding financial year, coming from approximately 1 million donations.

(3) Business Combinations (Continued)

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date are provided below:

	Thousands of Euros
Total business combination cost	220,191
Fair value of net assets acquired	49,057
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	**171,134**

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities were as follows:

	Fair value Thousands of Euros
Cash and cash equivalents	7,727
Trade and other receivables	10,321
Inventories	5,535
Other assets	836
Intangible assets (note 8)	1,518
Property, Plant and equipment (note 9)	25,407
Total assets	51,344
Trade and other payables	(1,795)
Contingent liabilities	(492)
Total liabilities and contingent liabilities	(2,287)
Total net assets acquired	49,057
Goodwill (note 7)	171,134
Total business combination cost	220,191

The resulting goodwill has been allocated to the Bioscience segment.

If the acquisition had taken place on 1 January, 2018, the net amount of the Group´s revenue would have increased by Euros 39,517 thousand and the Group´s profit would not have deferred significantly.

The revenue and profit of Haema AG between the acquisition date and 31 December 2018 amounted to Euros 46,758 thousand and Euros 53 thousand, respectively.

On 28 December 2018, Grifols sold Haema AG to Scranton Enterprises B.V (see note 3 (b) for more details).

(d) Goetech, LLC Acquisition ("MedKeeper")

On 26 January 2018, Grifols through its subsidiary Grifols Shared Services North America, Inc, suscribed a capital increase for an amount of US Dollars 98 million in the U.S company Goetech LLC, with headquarters in Denver, Colorado, and trading as Medkeeper. As a result of this transaction, Grifols held 51% interest in Medkeeper and also holds a majority position on the board of directors.

The acquisition agreement includes the repurchase of own shares by Medkeeper from the non-controlling shareholder in the amount of US Dollars 14 million (in 2 business days) and US Dollars 20 million (in two years). The agreement grants a call option to Grifols to acquire the remaining non-controlling stake for a

(3) Business Combinations (Continued)

term of three years and Medkeeper has a put option to sell this stake to Grifols, which may be executed at the end of the three-year period.

As the non-controlling shareholders do not currently have access to the economic rewards associated with the underlying ownership interests related to shares under the put and call commitment, we have applied the advance-acquisition method. Under this method we recognize the agreement as an advance acquisition of the underlying non-controlling interest, as if the put option had already been exercised by the non-controlling shareholders.

Medkeeper's core business is the development and distribution of web and mobile-based platforms for hospital pharmacies that improve quality standards, productivity in the processes, control systems and monitoring different preparations, while increasing patient safety.

This investment will enhance the activity of the Grifols Hospital Division and it is part of the strategy to underpin this division into the U.S. market.

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date are provided below:

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
First repurchase of non-controlling interests	11,475	14,000
Second repurchase of non-controlling interests (discounted amount)	14,952	18,241
Purchase of remaining non-controlling interests	42,998	52,458
Total business combination cost	69,425	84,699
Fair value of net assets acquired	14,104	17,207
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired) (note 7)	55,321	67,492

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities were as follows:

	Fair value	
	Thousands of Euros	Thousands of US Dollars
Intangible assets (note 8)	30,561	37,285
Property, Plant and equipment (note 9)	67	82
Other non-current assets	2,350	2,867
Other current assets	4,453	5,433
Total assets	37,432	45,667
Non-current liabilities	(2,186)	(2,667)
Current liabilities	(7,711)	(9,407)
Deferred tax liability	(13,431)	(16,386)
Total liabilities and contingent liabilities	(23,328)	(28,460)
Total net assets acquired	14,104	17,207

The resulting goodwill has been allocated to the Hospital segment.

If the acquisition had taken place on 1 January, 2018, the net amount of the Group's revenue and profit would not have deferred significantly.

(3) Business Combinations (Continued)

The revenue and profit of Goetech LLC between the acquisition date and 31 December 2018 amounted to Euros 9,210 thousand and Euros 1,778 thousand, respectively.

(e) Plasmavita Healthcare GmbH

In 2017, Grifols incorporated PLASMAVITA GmbH, a joint venture between Grifols (50%) and two European partners (50%). The company aims to set up at least 10 plasma centers in Germany. The share capital amounts to Euros 25,000, divided into 25,000 nominal shares of Euro 1 each, subscribed by both parties at Euros 12,500 each. During 2018, Grifols contributes an amount of Euros 10,000 thousand, which can be increased by an additional Euros 10 million, which will be used to finance the project.

(f) Aigües Minerals de Vilajuïga, S.A.

On 1 June 2017 the Group announced the acquisition of 50% of the voting rights in Aigües Minerals de Vilajuïga, S.A. a company based in Vilajuïga, Girona, Spain.

On 12 January 2018 the Group acquired the remaining 50% of the voting rights and consequently Grifols holds 100% of the voting rights for a total amount of Euros 550 thousand.

Aigües Minerals de Vilajuïga, S.A.'s principal activity is the collection and use of mineral-medicinal waters and the procurement of all necessary administrative concessions in order to facilitate the extraction of these waters and find the best way to exploit them.

2017

(a) Hologic Acquisition

On 14 December 2016 Grifols entered into an asset purchase agreement to acquire assets corresponding to Hologic's NAT (Nucleic Acid Testing) business donor screening unit for US Dollars 1,865 million. The transaction was closed on 31 January 2017. The agreement encompasses the acquisition of the Hologic business engaged in research, development and manufacture of assays and instruments based on NAT technology for transfusion and transplantation screening. In addition, it was agreed to cancel the existing joint-collaboration agreement for the commercialization of NAT donor screening products by Grifols. NAT technology makes it possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety.

The transaction is structured through the purchase of assets by Grifols Diagnostic Solutions, Inc., a U.S. incorporated and wholly-owned subsidiary of Grifols, S.A.

The assets acquired comprise a plant in San Diego, California (United States) as well as development rights, licenses to patents and access to product manufacturers.

Grifols consolidates itself as one of the only vertically integrated providers capable of offering comprehensive solutions to blood and plasma donation centers.

This acquisition strengthens cash flows and positively impacts the Group's margins. The sales revenues of the Diagnostic Division will not change as a result of the acquisition due to the existing commercialization agreement between Grifols and Hologic in place since 2014, under which Grifols commercializes this line of business.

It is expected that this acquisition will strengthen the position of the Grifols Diagnostic Division in transfusion medicine and will increase significantly the profitability of Grifols Diagnostic Division having a direct impact on the Group's EBITDA margin. By streamlining and integrating the NAT business, operational efficiency will be in terms of production, R&D, overheads and administrative expenses.

(3) Business Combinations (Continued)

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date are provided below:

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
Payment in cash	1,734,077	1,865,000
Result of the cancellation of the existing contract	41,894	45,057
Total business combination cost	1,775,971	1,910,057
Fair value of net assets acquired	309,551	332,923
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired) (see note 7)	1,466,420	1,577,134

As part of the purchase price allocation, the Company determined that the identifiable intangible assets were developed technology and IPR&D. The fair value of the intangible assets was estimated using the income approach. The cash flows were based on estimates used to price the transaction and the discount rates applied were benchmarked with reference to the implied rate of return from the transaction model and the weighted average cost of capital.

The developed technology assets are comprised of know-how, patents and technologies embedded in revenue. The Company applied the Relief-from-Royalty Method to determine its fair value. IPR&D projects relate to in-progress projects that have not reached technological feasibility as of the acquisition date. All of the IPR&D assets were valued using the Multiple-Period Excess Earnings Method approach.

The excess of the purchase price over the estimated fair value of the net assets acquired was recorded as goodwill. The factors contributing to the recognition of the amount of goodwill were the acquired workforce, cost savings and benefits arising from the vertical integration of the business that will lead to efficiencies in R&D, commercial and manufacturing activities.

The expenses incurred in this transaction in 2017 amounted to approximately Euros 13 million (Euros 5.1 million in 2016).

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities were as follows:

	Fair Value	
	Thousands of Euros	Thousands of US Dollars
R&D in progress	137,756	148,157
Other Intangible assets	142,174	152,908
Property, plant and equipment	24,569	26,424
Deferred Tax Assets (note 27)	16,736	18,000
Inventories	30,157	32,434
Total Assets	351,392	377,923
Current Provisions (note 19 (b))	41,841	45,000
Total liabilities and contingent liabilities	41,841	45,000
Total net assets acquired	309,551	332,923

The resulting goodwill has been allocated to the Diagnostic segment.

(3) Business Combinations (Continued)

(b) Kiro Grifols, S.L.

On 25 July 2017 the Group acquired an additional 40% interest in Kiro Grifols, S.L for an amount of Euros 12.8 million. In September 2014 the Group subscribed a capital increase in Kiro Grifols, S.L for an amount of Euros 21 million, by virtue of which Grifols acquired 50% of Kiro Grifols, S.L.'s economic and voting rights.

As a result, Grifols owns a 90% interest in Kiro Grifols. S.L. The remaining 10% will continue to be held by Socios Fundadores Kiro, S.L. a company wholly owned by cooperatives of the Mondragon Corporation.

Grifols also entered into a joint venture & shareholders' agreement (the "Joint Venture Agreement") with Kiro Grifols' partners: Mondragon Innovacion S.P.E, S.A.; Mondragon Assembly, S.Coop. and Agrupación de Fundición y Utillaje, S.Coop.. This agreement governs, among other matters, the capital increase subscribed by Grifols and the managing and governing bodies of Kiro Grifols, whether these are the Board of Directors or any other internal managing and governing bodies.

(c) Kedplasma

On 27 December 2016 Grifols entered into an agreement to acquire six new Plasma Donor Centers to the company Kedplasma, LLC, with a purchase price of US Dollars 47 million. These centers were handed over in February 2017.

Aggregate details of the combination cost, fair value of the net assets acquired and goodwill at the acquisition date are as follows:

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
Payment in cash	44,238	47,083
Total business combination cost	44,238	47,083
Fair value of net assets acquired	4,137	4,403
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired) (note 7)	40,101	42,680

The fair value of net assets acquired includes property, plant and equipment amounting to Euros 3,698 thousand.

Goodwill is allocated to the Bioscience segment and includes the plasma donor data base, FDA licenses and workforce retained.

At 31 December 2016, the Group advanced the sum of US Dollars 15 million related to this acquisition.

2016

During 2016, no significant business combinations were made for the Group.

(4) Significant Accounting Policies

(a) Subsidiaries and associates

Subsidiaries are entities, including special purpose entities (SPE), over which the Group exercises control, either directly or indirectly, through subsidiaries. The Group controls a subsidiary when it has the substantive rights in force that provide the ability to manage relevant activities. The Group is exposed or has the right to variable returns for its involvement in the subsidiaries when the returns obtained vary depending on the economic performance of the subsidiaries.

(4) Significant Accounting Policies (Continued)

The income, expenses and cash flows of subsidiaries are included in the consolidated annual accounts from the date of acquisition, which is when the Group takes control. Subsidiaries are excluded from the consolidated Group from the date on which control is lost.

Transactions and balances with Group companies and unrealized gains or losses have been eliminated upon consolidation.

The accounting policies of subsidiaries have been adapted to those of the Group for transactions and other events in similar circumstances.

The annual accounts of consolidated subsidiaries have been prepared as of the same date and for the same reporting period as the annual accounts of the Company.

Associates are entities over which the Company, either directly or indirectly through subsidiaries, exercises significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those entities. The existence of potential voting rights that are exercisable or convertible at the end of each reporting period, including potential voting rights held by the Group or other entities, are considered when assessing whether an entity has significant influence.

Investments in associates are initially recognized at acquisition cost, including any cost directly attributable to the acquisition and any consideration receivable or payable contingent on future events or on compliance with certain conditions.

Subsequently, investments in associates are accounted for using the equity method from the date that significant influence commences until the date that significant influence ceases.

The excess of the cost of the investment over the Group's share of the fair values of the identifiable net assets is recognized as goodwill, which is included in the carrying amount of the investment. Any shortfall, once the cost of the investment and the identification and measurement of the associate's net assets have been evaluated, is recognized as income when determining the investor's share of the profit and loss of the associate for the year in which it was acquired.

The accounting policies of associates have been harmonized in terms of timing and measurement, applying the policies described for subsidiaries.

The Group's share of the profit and loss of an associate from the date of acquisition is recognized as an increase or decrease in the value of the investments, with a credit or debit to share of the profit and loss for the year of "equity-accounted investees" in the consolidated statement of profit and loss (consolidated statement of comprehensive income). The Group's share of other comprehensive income of associates from the date of acquisition is recognized as an increase or decrease in the investments in associates with a balancing entry recognized by type in other comprehensive income. The distribution of dividends is recognized as a decrease in the value of the investment. The Group's share of profit and loss, including impairment losses recognized by the associates, is calculated based on income and expenses arising from application of the acquisition method.

When the Group's share of the losses in an investment accounted for using the equity method equals or exceeds its interest in the entity, the Group does not recognize additional losses, unless it has incurred in obligations or made payments on behalf of the other entity.

The Group's share of the profit and loss of an associate and changes in equity is calculated to the extent of the Group's interest in the associate at year end and does not reflect the possible exercise or conversion of potential voting rights. However, the Group's share is calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of associates.

(4) Significant Accounting Policies (Continued)

Information on the subsidiaries and associates included in the consolidated Group is presented in Appendix I.

(b) Business combinations

On the date of transition to IFRS-EU, 1 January 2004, the Group applied the exception permitted under IFRS 1 "First-time adoption of International Financial Reporting Standards", whereby only those business combinations performed as from 1 January 2004 have been recognized using the acquisition method. Entities acquired prior to that date were recognized in accordance with accounting prevailing at that time, taking into account the necessary corrections and adjustments at the transition date.

The Group applies the revised IFRS 3 "Business combinations" in transactions made subsequent to 1 January 2010.

The Group applies the acquisition method for business combinations.

The acquisition date is the date on which the Group obtains control of the acquiree.

Business combinations made subsequent to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, equity instruments issued and any additional consideration contingent on future events or the fulfilment of certain conditions, in exchange for control of the acquiree.

The consideration paid excludes all amounts that do not form part of the exchange for the acquired business. Acquisition-related costs are accounted for as expenses when incurred. Share increase costs are recognized as equity when the increase takes place and borrowing costs are deducted from the financial liability when it is recognized.

At the acquisition date the Group recognizes at fair value the assets acquired and liabilities assumed. Liabilities assumed include any contingent liabilities that represent present obligations arising from past events for which the fair value can be reliably measured. The Group also recognizes indemnification assets transferred by the seller at the same time and following the same measurement criteria as the item that is subject to indemnification from the acquired business, taking into consideration, where applicable, the insolvency risk and any contractual limit on the indemnity amount.

This criterion does not include non-current assets or disposal groups of assets which are classified as held for sale, long-term defined benefit employee benefit liabilities, share-based payment transactions, deferred tax assets and liabilities and intangible assets arising from the acquisition of previously transferred rights.

Assumed assets and liabilities are classified and designated for subsequent measurement in accordance with the contractual terms, economic conditions, operating or accounting policies and other factors that exist at the acquisition date, except for leases and insurance contracts.

The excess between the consideration transferred and the value of net assets acquired and liabilities assumed, less the value assigned to non-controlling interests, is recognized as goodwill. Where applicable, any shortfall, after evaluating the consideration transferred, the value assigned to non-controlling interests and the identification and measurement of net assets acquired, is recognized in profit and loss.

When a business combination has been provisionally determined, net identifiable assets have initially been recognized at their provisional value, and any adjustments made during the measurement period have been recorded as if they had been known at that date. Where applicable, comparative figures for the prior year have been restated. Adjustments to the provisional values only reflect information relating to events and circumstances existing at the acquisition date and which, had they been known, would have affected the amounts recognized at that date. Once this period has elapsed, adjustments are only made to initial values

(4) Significant Accounting Policies (Continued)

when errors must be corrected. Any potential benefits arising from tax losses and other deferred tax assets of the acquiree that have not been recorded as they did not qualify for recognition at the acquisition date, are accounted for as income tax revenue, provided the adjustments were not made during the measurement period.

The contingent consideration is classified in accordance with underlying contractual terms as a financial asset or financial liability, equity instrument or provision. Provided that subsequent changes to the fair value of a financial asset or financial liability do not relate to an adjustment of the measurement period, they are recognized in consolidated profit and loss. The contingent consideration classified, where applicable, as equity is not subject to subsequent change, with settlement being recognized in equity. The contingent consideration classified, where applicable, as a provision is recognized subsequently in accordance with the relevant measurement standard.

Business combinations made prior to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, and equity instruments issued by the Group, in exchange for control of the acquiree, plus any costs directly attributable to the business combination. Any additional consideration contingent on future events or the fulfilment of certain conditions is included in the cost of the combination provided that it is probable that an outflow of resources embodying economic benefits will be required and the amount of the obligation can be reliably estimated. Subsequent recognition of contingent considerations or subsequent variations to contingent considerations is recognized as a prospective adjustment to the cost of the business combination.

Where the cost of the business combination exceeds the Group's interest in the fair value of the identifiable net assets of the entity acquired, the difference is recognized as goodwill, whilst the shortfall, once the costs of the business combination and the fair values of net assets acquired have been reconsidered, is recognized in profit and loss.

(c) Non-controlling interests

Non-controlling interests in subsidiaries acquired after 1 January 2004 are recognized at the acquisition date at the proportional part of the fair value of the identifiable net assets. Non-controlling interests in subsidiaries acquired prior to the transition date were recognized at the proportional part of the equity of the subsidiaries at the date of first consolidation.

Non-controlling interests are disclosed in the consolidated balance sheet under equity separately from equity attributable to the Parent. Non-controlling interests' share in consolidated profit and loss for the year (and in consolidated comprehensive income for the year) is disclosed separately in the consolidated statement of profit and loss (consolidated statement of comprehensive income).

The consolidated profit and loss for the year, consolidated comprehensive income and changes in equity of the subsidiaries attributable to the Group and non-controlling interests after consolidation adjustments and eliminations, is determined in accordance with the percentage ownership at year end, without considering the possible exercise or conversion of potential voting rights. However, Group and non-controlling interests are calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of subsidiaries.

Profit and loss and each component of other comprehensive income are assigned to equity attributable to shareholders of the Parent and to non-controlling interests in proportion to their interest, although this implies a balance receivable from non-controlling interests. Agreements signed between the Group and the non-controlling interests are recognized as a separate transaction.

(4) Significant Accounting Policies (Continued)

The increase and reduction of non-controlling interests in a subsidiary in which control is retained is recognized as an equity instrument transaction. Consequently, no new acquisition cost arises on increases, nor is a gain recorded on reductions; rather, the difference between the consideration transferred or received and the carrying amount of the non-controlling interests is recognized in the reserves of the investor, without prejudice to reclassifying consolidation reserves and reallocating other comprehensive income between the Group and the non-controlling interests. When a Group's interest in a subsidiary diminishes, non-controlling interests are recognized at their share of the net consolidated assets, including goodwill.

(d) Joint arrangements

Joint arrangements are those in which there is a contractual agreement to share the control over an economic activity, in such a way that the decisions over relevant activities require the unanimous consent of the Group and the remaining venturers. Under IFRS 11 "Joint arrangements" investments in joint arrangements are classified as joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than on the legal structure of the joint agreement.

Interests in joint ventures are accounted for using the equity method, after initially being recognized at cost in the consolidated balance sheet.

The acquisition cost of investments in joint arrangements is determined consistently with that established for investments in associates.

(e) Foreign currency transactions and balances

(i) *Functional and presentation currency*

The consolidated annual accounts are presented in thousands of Euros, which is the functional and presentation currency of the Parent.

(ii) *Foreign currency transactions, balances and cash flows*

Foreign currency transactions are translated into the functional currency using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from applying the exchange rate at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies have been translated into thousands of Euros at the closing rate, while non-monetary assets and liabilities measured at historical cost have been translated at the exchange rate prevailing at the transaction date. Non-monetary assets measured at fair value have been translated into thousands of Euros at the exchange rate at the date that the fair value was determined.

In the consolidated statement of cash flows, cash flows from foreign currency transactions have been translated into thousands of Euros at the exchange rates prevailing at the dates the cash flows occur. The effect of exchange rate fluctuations on cash and cash equivalents denominated in foreign currencies is recognized separately in the statement of cash flows as "Effect of exchange rate fluctuations on cash and cash equivalents".

Exchange gains and losses arising on the settlement of foreign currency transactions and the translation into thousands of Euros of monetary assets and liabilities denominated in foreign currencies are recognized in profit and loss.

(4) Significant Accounting Policies (Continued)

(iii) *Translation of foreign operations*

The translation into thousands of Euros of foreign operations for which the functional currency is not the currency of a hyperinflationary economy is based on the following criteria:

- Assets and liabilities, including goodwill and net asset adjustments derived from the acquisition of the operations, including comparative amounts, are translated at the closing rate at the reporting date;
- Income and expenses, including comparative amounts, are translated using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from using the exchange rate at the date of the transaction;
- Translation differences resulting from application of the above criteria are recognized in other comprehensive income.

(f) Borrowing costs

In accordance with IAS 23 "Borrowing Costs", since 1 January 2009 the Group recognizes borrowing costs directly attributable to the purchase, construction or production of qualifying assets as an increase in the value of these assets. Qualifying assets are those which require a substantial period of time before they can be used or sold. To the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalization is determined as the actual borrowing costs incurred, less any investment income on the temporary investment of those funds. Capitalized borrowing costs corresponding to general borrowing are calculated as the weighted average of the qualifying assets without considering specific funds. The amount of borrowing costs capitalized cannot exceed the amount of borrowing costs incurred during that period. The capitalized borrowing costs include adjustments to the carrying amount of financial liabilities arising from the effective portion of hedges entered into by the Group.

The Group begins capitalizing borrowing costs as part of the cost of a qualifying asset when it incurs expenditure for the asset, interest is accrued, and it undertakes activities that are necessary to prepare the asset for its intended use or sale, and ceases capitalizing borrowing costs when all or substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete. Nevertheless, capitalization of borrowing costs is suspended when active development is interrupted for extended periods.

The remaining interest costs are recognized as an expense in the year in which they are incurred.

(g) Property, plant and equipment

(i) *Initial recognition*

Property, plant and equipment are recognized at cost or deemed cost, less accumulated depreciation and any accumulated impairment losses. Land is not subject to depreciation. The cost of self-constructed assets is determined using the same principles as for an acquired asset, while also considering the criteria applicable to production costs of inventories. Capitalized production costs are recognized by allocating the costs attributable to the asset to "Self-constructed non-current assets" in the consolidated statement of profit and loss.

(ii) *Depreciation*

Property, plant and equipment are depreciated by allocating the depreciable amount of an asset on a systematic basis over its useful life. The depreciable amount is the cost or deemed cost of an asset, less its residual value. The Group determines the depreciation charge separately for each item for a component of property, plant and equipment with a cost that is significant in relation to the total cost of the asset.

(4) Significant Accounting Policies (Continued)

Property, plant and equipment are depreciated using the following criteria:

	Depreciation method	Rates
Buildings	Straight line	1%-3%
Other property, technical equipment and machinery	Straight line	4%-10%
Other property, plant and equipment	Straight line	7%-33%

The Group reviews residual values, useful lives and depreciation methods at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(iii) *Subsequent recognition*

Subsequent to initial recognition of the asset, only those costs incurred which will probably generate future profits and for which the amount may reliably be measured are capitalized. Costs of day-to-day servicing are recognized in profit and loss as incurred.

Replacements of property, plant and equipment which qualify for capitalization are recognized as a reduction in the carrying amount of the items replaced. Where the cost of the replaced items has not been depreciated independently and it is not possible to determine the respective carrying amount, the replacement cost is used as indicative of the cost of items at the time of acquisition or construction.

(iv) *Impairment*

The Group tests for impairment and reversals of impairment losses on property, plant and equipment based on the criteria set out in note 4(i) below.

(h) Intangible assets

(i) *Goodwill*

Goodwill is generated on the business combinations and is calculated using the criteria described in the section on business combinations.

Goodwill is not amortized, but is tested for impairment annually or more frequently whenever there is an indication that goodwill may be impaired. Goodwill acquired in business combinations is allocated to the cash-generating units (CGUs) or groups of CGUs which are expected to benefit from the synergies of the business combination and the criteria described in note 7 are applied. After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Gains and losses on the sale of an entity include the carrying amount of the goodwill related to the entity sold.

(ii) *Internally generated intangible assets*

Any research and development expenditure incurred during the research phase of projects is recognized as an expense when incurred.

Costs related with development activities are capitalized when:

- The Group has technical studies that demonstrate the feasibility of the production process;
- The Group has undertaken a commitment to complete production of the asset, to make it available for sale or internal use;
- The asset will generate sufficient future economic benefits;
- The Group has sufficient technical and financial resources to complete development of the asset and has devised budget control and cost accounting systems that enable monitoring of budgetary costs, modifications and the expenditure actually attributable to the different projects.

(4) Significant Accounting Policies (Continued)

The cost of internally generated assets by the Group is calculated using the same criteria established for determining production costs of inventories. The production cost is capitalized by allocating the costs attributable to the asset to self-constructed non-current assets in the consolidated statement of profit and loss.

Expenditure on activities that contribute to increasing the value of the different businesses in which the Group as a whole operates is expensed when incurred. Replacements or subsequent costs incurred on intangible assets are generally recognized as an expense, except where they increase the future economic benefits expected to be generated by the assets.

Development costs previously recognized as an expense are not recognized as an asset in a subsequent period.

(iii) *Other intangible assets*

Other intangible assets are carried at cost, or at fair value if they arise on business combinations, less accumulated amortization and impairment losses.

Intangible assets with indefinite useful lives are not amortized but tested for impairment at least annually.

(iv) *Intangible assets acquired in business combinations*

The cost of the identifiable intangible assets acquired in Biotest's business combination includes the fair value of the current contracts.

The cost of identifiable intangible assets acquired in the business combination of Hologic includes the fair value of the R&D projects and the Intellectual Property-Patents.

The cost of identifiable intangible assets acquired in the business combination of Novartis includes the fair value of the existing royalty agreements.

The cost of identifiable intangible assets acquired in the Progenika business combination includes the fair value of currently marketed products sold and which are classified under "Other intangible assets"and "Research and Development".

The cost of identifiable intangible assets acquired in the Talecris business combination includes the fair value of currently marketed products sold and which are classified under "Other intangible assets".

(v) *Useful life and amortization rates*

The Group assesses whether the useful life of each intangible asset acquired is finite or indefinite. An intangible asset is regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset will generate net cash inflows.

Intangible assets with finite useful lives are amortized by allocating the depreciable amount of an asset on a systematic basis over its useful life, by applying the following criteria:

	Amortisation method	Rates
Development expenses	Straight line	10%
Concessions, patents, licences, trademarks and similar	Straight line	4%-20%
Computer software	Straight line	33%
Currently marketed products	Straight line	3%-10%

The depreciable amount is the cost or deemed cost of an asset, less its residual value.

The Group does not consider the residual value of its intangible assets to be material. The Group reviews the residual value, useful life and amortization method for intangible assets at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(4) Significant Accounting Policies (Continued)

(i) Impairment of goodwill, other intangible assets and other non-financial assets subject to depreciation or amortization

The Group evaluates whether there are indications of possible impairment losses on non-financial assets subject to amortization or depreciation, to verify whether the carrying amount of these assets exceeds the recoverable amount.

The Group tests goodwill, intangible assets with indefinite useful lives and intangible assets with finite useful lives that are not available for use for potential impairment at least annually, irrespective of whether there is any indication that the assets may be impaired.

The recoverable amount of the assets is the higher of their fair value less costs of disposal and their value in use. An asset's value in use is calculated based on an estimate of the future cash flows expected to derive from the use of the asset, expectations about possible variations in the amount or timing of those future cash flows, the time value of money, the price for bearing the uncertainty inherent in the asset and other factors that market participants would reflect in pricing the future cash flows deriving from the asset.

Negative differences arising from comparison of the carrying amounts of the assets with their recoverable amounts are recognized in the consolidated statement of profit and loss. Recoverable amount is determined for each individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the cash-generating unit (CGU) to which the asset belongs.

Impairment losses recognized for cash-generating units are first allocated to reduce, where applicable, the carrying amount of goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset. The carrying amount of each asset may not be reduced below the highest of its fair value less costs of disposal, its value in use and zero.

At the end of each reporting period the Group assesses whether there is any indication that an impairment loss recognized in prior periods may no longer exist or may have decreased. Impairment losses on goodwill are not reversible. Impairment losses on other assets are only reversed if there has been a change in the estimates used to calculate the recoverable amount of the asset.

A reversal of an impairment loss is recognized in consolidated profit and loss. The increased carrying amount of an asset attributable to a reversal of an impairment loss may not exceed the carrying amount that would have been determined, net of depreciation or amortization, had no impairment loss been recognized.

A reversal of an impairment loss for a CGU is allocated to the assets of each unit, except goodwill, pro rata with the carrying amounts of those assets. The carrying amount of an asset may not be increased above the lower of its recoverable amount and the carrying amount that would have been disclosed, net of amortization or depreciation, had no impairment loss been recognized.

(j) Leases

(i) *Lessee accounting records*

The Group has rights to use certain assets through lease contracts.

Leases in which the Group assumes substantially all the risks and rewards incidental to ownership are classified as finance leases, otherwise they are classified as operating leases.

- Finance leases

At the commencement of the lease term, the Group recognizes finance leases as assets and liabilities at the lower of the fair value of the leased asset and the present value of the minimum lease payments. Initial direct costs are added to the asset's carrying amount. Minimum lease payments are apportioned between

(4) Significant Accounting Policies (Continued)

the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are recognized as an expense in the years in which they are incurred. Property, plant and equipment acquired through a finance lease is amortized over the useful life of the asset or within the term of the lease, whichever is less, if there is no reasonable certainty that the group will obtain the property at the end of the term of the lease.

- Operating leases

Lease payments under an operating lease (excluding incentives) are recognized as an expense on a straight-line basis unless another systematic basis is representative of the time pattern of the user's benefit.

(ii) *Leasehold investments*

Non-current investments in properties leased from third parties are recognized on the basis of the same criteria for property, plant and equipment. Investments are amortized over the lower of their useful lives and the term of the lease contract. The lease term is consistent with that established for recognition of the lease.

(iii) *Sale and leaseback transactions*

Any profit on sale and leaseback transactions that meet the conditions of a finance lease is deferred over the term of the lease.

When the leaseback is classified as an operating lease:

- If the transaction is established at fair value, any profit and loss on the sale is recognized immediately in the consolidated statement of profit and loss for the year;
- If the sale price is below fair value, any profit and loss is recognized immediately in the consolidated statement of profit and loss. However, if the loss is compensated for by future lease payments at below market price, it is deferred in proportion to the lease payments over the period for which the asset is to be used.

(k) Financial instruments

(i) *Classification of the financial instruments*

Financial instruments are classified at the time of their initial recognition as a financial asset, a financial liability or an equity instrument, in accordance with the economic substance of the contractual agreement and with the definitions of financial assets, financial liabilities or equity instruments indicated in IAS 32 "Financial instruments: Presentation".

For purposes of its valuation, the Group classifies financial instruments in the categories of financial assets and financial liabilities at fair value through profit or loss, separating those initially designated from those held for trading or mandatorily measured at fair value through profit or loss, financial assets and financial liabilities valued at amortized cost and financial assets measured at fair value through other comprehensive income, separating the equity instruments designated as such, from other financial assets. The classification depends on the Group's business model to manage the financial assets and the contractual terms of the cash flows.

The Group classifies a financial asset at amortized cost if it is held in the framework of a business model whose objective is to hold financial assets to obtain contractual cash flows and the contractual terms of the financial asset give rise, on specified dates, to cash flows which are only principal and interest payments on the outstanding principal amount (OPIP).

The Group classifies a financial asset at fair value through changes in other comprehensive income, if it is maintained in the framework of a business model whose objective is achieved by obtaining contractual cash

(4) Significant Accounting Policies (Continued)

flows and selling financial assets and the contractual conditions of the financial asset give rise to, at specified dates, to cash flows that are OPIP.

The business model is determined by the key personnel of the Group and at a level that reflects the way in which they jointly manage groups of financial assets to achieve a specific business objective. The Group's business model represents the way in which it manages its financial assets to generate cash flows.

Financial assets that are part of a business model whose objective is to hold assets to receive contractual cash flows are managed to generate cash flows in the form of contractual collections during the life of the instrument. The Group manages the assets held in the portfolio to receive these specific contractual cash flows. To determine whether cash flows are obtained through the collection of contractual cash flows from financial assets, the Group considers the frequency, value and timing of sales in prior years, the reasons for those sales and expectations in relation to with the future sales activity. However, the sales themselves do not determine the business model and, therefore, cannot be considered in isolation. Instead, it is the information on past sales and future sales expectations that provides indicative data on how to achieve the stated objective of the Group with respect to the management of financial assets and, more specifically, the way where cash flows are obtained.

For assets measured at fair value, losses and gains will be recognized in profit or loss or other comprehensive income. For investments in equity instruments that are not held for trading, it will depend on whether the Group has made an irrevocable election at the time of initial recognition to account for investments in equity at fair value through other comprehensive income (COCI).

The Group reclassifies investments in debt when and only when its business model to manage those assets changes.

(ii) *Measurement*

At the time of initial recognition, the Group values a financial asset at its fair value plus, in the case of a financial asset that is not at fair value through profit or loss, the costs of the transaction that are directly attributable to the acquisition. The transaction costs of financial assets at fair value through profit or loss are taken to results.

In order to determine the fair value of financial assets or liabilities, the Group uses market data as much as possible. Based on the factors used for the measurement, the fair values are hierarchized based on the following levels:

- Level 1: quoted prices (unadjusted) within current markets for assets or liabilities identical to those under consideration.
- Level 2: factors other than the prices considered in Level 1 that come directly from the asset or liability in question, such as those that may derive directly from the price.
- Level 3: factors not based on data directly from the market.

In the event that the factors used to determine the fair value of an asset or liability are included in different levels of hierarchy, the fair value will be determined in its entirety based on the significant component located at the lowest level of hierarchy.

(iii) *Offseting principles*

A financial asset and a financial liability are offset only when the Group has the legally enforceable right to set off the recognized amounts and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

(4) Significant Accounting Policies (Continued)

(iv) *Financial assets and liabilities at fair value through profit or loss*

Financial assets or liabilities at fair value through profit or loss are those that are classified as held for trading or have been designated from the moment of initial recognition.

A financial asset or liability is classified as held for trading if:

- It is acquired or incurred mainly for the purpose of selling it or repurchasing it in the near term.
- On initial recognition it is part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking, or
- It is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

Financial assets and liabilities at fair value through profit or loss are initially recognized at fair value. Transaction costs directly attributable to the purchase or issue are recognized as an expense as incurred.

After initial recognition, they are recognized at fair value through profit or loss. The fair value is not reduced by the transaction costs that may be incurred by their eventual sale or disposal by other means.

The Group does not reclassify any financial asset or liability to or from this category as long as it is recognized in the consolidated statement of financial position.

(v) *Financial assets at amortized cost*

Financial assets at amortized cost are initially recognized at their fair value, including the transaction costs incurred, and are subsequently valued at amortized cost, using the effective interest rate method.

(vi) *Debt instruments*

The subsequent valuation of the debt instruments depends on the Group's business model to manage the asset and the characteristics of the cash flows of the asset. The Group's debt instruments consist mainly of trade and other receivables, which the Group classifies as financial assets at amortized cost.

Financial assets at amortized cost are assets that the Group holds for the collection of contractual cash flows when these cash flows represent only payments of principal and interest, and are valued at amortized cost. Interest income from these financial assets is included in finance income in accordance with the effective interest rate method.

(vii) *Equity instruments*

The Group holds financial assets owned, mainly equity instruments, which are measured at fair value. When Group management has chosen to present the gains and losses on the fair value of the equity investments in other comprehensive income, after the initial recognition, the equity instruments are measured at fair value, recognizing the loss or gain in other comprehensive income. The amounts recognized in other comprehensive income are not subject to reclassification to profit or loss, without prejudice to reclassification to reserves at the time when the instruments are derecognized. Dividends from such investments continue to be recognized in income for the year as other income when the Group's right to receive payments is established.

(viii)*Impairment*

As of 1 January, 2018, the Group evaluates, on a prospective basis, the expected credit losses associated with its debt instruments recorded at amortized cost. The Group uses the practical solutions permitted by IFRS 9 to assess the expected credit losses related to commercial accounts using a simplified approach, eliminating the need to evaluate when there has been a significant increase in credit risk. The simplified approach requires that the expected losses be recorded from the initial recognition of receivables, so that

(4) Significant Accounting Policies (Continued)

the Group determines expected credit losses as a probability-weighted estimate of such losses over the expected life of the financial instrument.

The practical solution applied is the use of a provision matrix based on the segmentation into groups of homogeneous assets, applying the historical information of percentages of non-payment for said groups and applying reasonable information about the future economic conditions.

The percentage of non-payment is calculated according to the current experience of non-payment during the last year, as it is a very dynamic market and is adjusted for the differences between current and historical economic conditions and considering projected information, which is reasonably available.

(ix) *Derecognition of financial assets*

The Group applies the criteria for the derecognition of financial assets to a part of a financial asset or to a part of a group of similar financial assets or to a financial asset or a group of similar financial assets.

Financial assets are derecognised when the rights to receive cash flows related to them have expired or have been transferred and the Group has substantially transferred the risks and rewards derived from their ownership.

(x) *Financial liabilities at amortized cost*

Financial liabilities, including trade payables and other accounts payable, that are not classified at fair value through profit or loss, are initially recognized at their fair value, less, if applicable, the transaction costs that are directly attributable to the issue. Subsequent to the initial recognition, liabilities classified under this category are valued at amortized cost using the effective interest rate method.

(xi) *Derecognition and modification of financial liabilities*

The Group derecognises a financial liability or part thereof when it has complied with the obligation contained in the liability, or is legally exempt from the main liability contained in the liability, either by virtue of a judicial process or by the creditor.

The Group considers that the conditions are substantially different if the present value of the discounted cash flows under the new conditions, including any commission paid net of any commission received, and using the original effective interest rate to make the discount, differs at least at 10 percent of the discounted present value of the cash flows that still remain of the original financial liability.

If the exchange is recorded as a cancellation of the original financial liability, the costs or commissions are recognized in consolidated results forming part of the result of the same. Otherwise, the costs or commissions adjust the carrying amount of the liability and are amortized by the amortized cost method during the remaining life of the modified liability.

The Group recognizes the difference between the carrying amount of the financial liability or a part of it that is canceled or assigned to a third party and the consideration paid, including any assigned asset different from the cash or liability assumed in profit or loss.

(l) Equity instruments

The Group's acquisition of equity instruments of the Parent is recognized separately at cost of acquisition in the consolidated balance sheet as a reduction in equity, regardless of the motive of the purchase. Any gains or losses on transactions with treasury equity instruments are not recognized in consolidated profit and loss.

The subsequent redemption of Parent shares, where applicable, leads to a reduction in share capital in an amount equivalent to the par value of such shares. Any positive or negative difference between the cost of acquisition and the par value of the shares is debited or credited to reserves. Transaction costs related with

(4) Significant Accounting Policies (Continued)

treasury equity instruments, including issue costs related to a business combination, are accounted for as a reduction in equity, net of any tax effect.

(m) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The costs of conversion of inventories include costs directly related to the units of production and a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. The allocation of fixed indirect overheads is based on the higher of normal production capacity or actual production.

The raw material used to produce haemoderivatives is human plasma, which is obtained from our donation centers using the plasmapheresis method. The cost of inventories includes the amount paid to plasma donors, or the amount billed by the seller when purchased from third parties, as well as the cost of products and devices used in the collection process, rental expenses and storage. This plasma has to be stored before use, which is an essential part of the production process. During the storage period, the plasma undergoes various virological tests and should be kept in quarantine in accordance with FDA and European Medicines Agency regulations, in order to guarantee that all the plasma is suitable for use in the production process.

To the extent that plasma storage costs are necessary to the production process, they are included as cost of inventories.

Indirect costs such as general management and administration costs are recognized as expenses in the period in which they are incurred.

The cost of raw materials and other supplies and the cost of merchandise are allocated to each inventory unit on a weighted average cost basis.

The transformation cost is allocated to each inventory unit on a FIFO (first-in, first-out) basis.

The Group uses the same cost model for all inventories of the same nature and with a similar use.

Volume discounts extended by suppliers are recognized as a reduction in the cost of inventories when it is probable that the conditions for discounts to be received will be met. Discounts for prompt payment are recognized as a reduction in the cost of the inventories acquired.

When the cost of inventories exceeds net realizable value, materials are written down to net realizable value, which is understood to be:

- For raw materials and other supplies, replacement cost. Nevertheless, raw materials and other supplies are not written down below cost if the finished goods into which they will be incorporated are expected to be sold at or above cost of production;
- Merchandise and finished goods, estimated selling price less costs to sell;
- Work in progress, the estimated selling price of related finished goods, less the estimated costs of completion and the estimated costs necessary to make the sale.

The previously recognized write-down is reversed against profit and loss when the circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances. The reversal of the write-down is limited to the lower of the cost and revised net realizable value of the inventories. Write-downs may be reversed with a credit to "Cost of Sales".

(4) Significant Accounting Policies (Continued)

(n) Cash and cash equivalents

Cash and cash equivalents include cash on hand and demand deposits in financial institutions. They also include other short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. An investment normally qualifies as a cash equivalent when it has a maturity of less than three months from the date of acquisition.

The Group classifies cash flows relating to interest received and paid as operating activities, and dividends received and distributed are classified under investing and financing activities, respectively.

(o) Government grants

Government grants are recognized when there is reasonable assurance that they will be received and that the Group will comply with the conditions attached.

(i) *Capital grants*

Outright capital grants are initially recognized as deferred income in the consolidated balance sheet. Income from capital grants is recognized in the consolidated statement of profit and loss in line with the depreciation of the corresponding financed assets.

(ii) *Operating grants*

Operating grants received to offset expenses or losses already incurred, or to provide immediate financial support not related to future disbursements, are recognized in the consolidated statement of profit and loss.

(iii) *Interest rate grants*

Financial liabilities comprising implicit assistance in the form of below-market interest rates are initially recognized at fair value. The difference between this value, adjusted where necessary for the issue costs of the financial liability and the amount received, is recognized as a government grant based on the nature of the grant awarded.

(p) Employee benefits

(i) *Defined contribution plans*

The Group recognizes the contributions payable to a defined contribution plan in exchange for a service in the period in which contributions are accrued. Accrued contributions are recognized as an employee benefit expense in the corresponding consolidated statement of profit and loss in the year that the contribution was made.

(ii) *Termination benefits*

Termination benefits are recognized at the earlier of the date when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring that involves the payment of termination benefits.

For termination benefits payable as a result of an employee's decision to accept an offer of benefits, the time when the Group can no longer withdraw the offer of termination benefits is the earlier of when the employee accepts the offer and when a restriction on the Group's ability to withdraw the offer takes effect.

For termination benefits payable as a result of the Group's decision to make an employee redundant, the Group can no longer withdraw the offer when it has informed the affected employees or union representatives of the plan and the actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made. The plan must identify the number of employees to be made redundant, their job classifications or functions and their locations and the expected completion date. The plan must also establish the termination benefits that employees will receive in sufficient detail that

(4) Significant Accounting Policies (Continued)

employees can determine the type and amount of benefits they will receive when their employment is terminated.

If the Group expects to settle the termination benefits in full more than twelve months after year end, the liability is discounted using the market yield on high quality corporate bonds.

(iii) *Short-term employee benefits*

The Group recognizes the expected cost of short-term employee benefits in the form of accumulating compensated absences when the employees render service that increases their entitlement to future compensated absences. In the case of non-accumulating compensated absences, the expense is recognized when the absences occur.

The Group recognizes the expected cost of profit-sharing and bonus plans when it has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made.

(iv) *Restricted Share Unit Retention Plan (RSU)*

The Group gives share-based payments to certain employees who render services to the Company. The fair value of the services received is determined based on the estimated fair value of the shares given at the grant date. Because the equity instruments granted do not vest until the employees complete a specified period of service, those services are accounted for during the vesting period in the income statement as an expense for the year, with the corresponding increase in equity. The amount recognized corresponds to that settled once the agreed terms have been met and it will not be adjusted or revalued during the accrual period, as the commitment is settled in the form of shares.

The total amount recognized is calculated based on the incentive payable in shares, increasing in line with percentages agreed by the Group. If an employee decides to leave his/her job prior to the end of the accrual period, he/she will only receive the agreed incentive in the form of shares and the Company will be able to choose whether to settle in cash or using equity instruments.

(q) Provisions

Provisions are recognized when the Group has a present obligation (legal or implicit) as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount of the obligation. No provisions are recognized for future operating losses.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period, taking into account all risks and uncertainties surrounding the amount to be recognized as a provision and, where the time value of money is material, the financial effect of discounting provided that the expenditure to be made each period can be reliably estimated. The discount rate used to determine the present value is a pre-tax rate that reflects the evaluations that the current market is making of the time value of money and the specific risks of the obligation. The increase in the provision due to the passage of time is recognized as an interest expense.

If it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed against the consolidated statement of profit and loss item where the corresponding expense was recognized.

(r) Revenue recognition

Revenue from the sale of goods or services is recognized at an amount that reflects the consideration that the Group expects to be entitled to receive in exchange for transferring goods or services to a customer, at the time when the customer obtains control of the goods or services rendered. The consideration that is

(4) Significant Accounting Policies (Continued)

committed in a contract with a client can include fixed amounts, variable amounts, or both. The amount of the consideration may vary due to discounts, reimbursements, incentives, performance bonuses, penalties or other similar items. Contingent consideration is included in the transaction price when it is highly probable that the amount of revenue recognized is not subject to future significant reversals. Revenue is presented net of the value added tax and any other amount or tax, which in substance corresponds to amounts received on behalf of third parties.

(i) *Sale of goods*

Revenue from the sale of goods is recognized when the Group meets the performance obligation by transferring the assets committed to the customer. An asset is transferred when the customer obtains control of that asset. When evaluating the satisfaction of the performance obligation, the Group considers the following indicators of the transfer of control, which include, but are not limited to the following:

- The Group has a present right to payment for the asset
- The customer has the legal right to the asset
- The Group has transferred the physical possession of the asset
- The customer has the significant risks and rewards of ownership of the asset
- The customer has accepted the asset

The Group participates in the government-managed Medicaid programs in the United States, accounting for Medicaid rebates by recognizing an accrual at the time a sale is recorded for an amount equal to the estimated claims for Medicaid rebates attributable to the sale. Medicaid rebates are estimated based on historical experience, legal interpretations of the applicable laws relating to the Medicaid program and any new information regarding changes in the program regulations and guidelines that would affect rebate amounts. Outstanding Medicaid claims, Medicaid payments and inventory levels are analyzed for each distribution channel and the accrual is adjusted periodically to reflect actual experience. While rebate payments are generally made in the following or subsequent quarter, any adjustments for actual experience have not been material.

As is common practice in the sector, the purchase contracts signed by some customers with the Group entitle these customers to price discounts for a minimum purchase volume, volume discounts or prompt payment discounts. The Group recognizes these discounts as a reduction in sales and receivables in the same month that the corresponding sales are invoiced based on the customer's actual purchase figures or on past experience when the customer's actual purchases will not be known until a later date.

In the USA, the Group enters into agreements with certain customers to establish contract pricing for the products, which these entities purchase from the authorized wholesaler or distributor (collectively, wholesalers) of their choice. Consequently, when the products are purchased from wholesalers by these entities at the contract price which is less than the price charged by the Group to the wholesaler, the Group provides the wholesaler with a credit referred to as a chargeback. The Group records the chargeback accrual at the time of the sale. The allowance for chargebacks is based on Group's estimate of the wholesaler inventory levels, and the expected sell-through of the products by the wholesalers at the contract price based on historical chargeback experience and other factors. The Group periodically monitors the factors that influence the provision for chargebacks, and makes adjustments when it considers that actual chargebacks may differ from established allowances. These adjustments occur in a relatively short period of time. As these chargebacks are typically settled within 30 to 45 days of the sale, adjustments for actual experience have not been material.

(ii) *Services rendered*

Revenues associated with the rendering of service transactions are recognized by reference to the stage of completion at the consolidated balance sheet date when the outcome of the transaction can be estimated

(4) Significant Accounting Policies (Continued)

reliably. The outcome of a transaction can be estimated reliably when revenues, the stage of completion, the costs incurred and the costs to complete the transaction can be estimated reliably and it is probable that the economic benefits derived from the transaction will flow to the Group.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of costs incurred that are recoverable.

(iii) *Interest income*

Until June 2012 the Group has been recognizing interest receivable from the different Social Security affiliated bodies in Spain, to which it provides goods or services, on an accrual basis, and only for those bodies to which historically claims have been made and from which interest has been collected. As a result of the terms imposed by the Spanish Government in 2012 regarding the waiver of late payment interest on overdue receivables, the Group modified its estimate regarding late payment interest. Since June 2012 the Group has only been recognizing late payment interest on receivables from Social Security affiliated bodies on the date on which delayed invoices are collected, as it is highly likely that they will be collected as of that date provided.

(s) Income taxes

The income tax expense or tax income for the year comprises current tax and deferred tax.

Current tax is the amount of income taxes payable or recoverable in respect of the consolidated taxable profit or consolidated tax loss for the year. Current tax assets or liabilities are measured at the amount expected to be paid to or recovered from the taxation authorities, using the tax rates and tax laws that have been enacted or substantially enacted at the reporting date.

Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences, whereas deferred tax assets are the amounts of income taxes recoverable in future periods in respect of deductible temporary differences, the carryforward of unused tax losses, and the carryforward of unused tax credits. Temporary differences are differences between the carrying amount of an asset or liability in the balance sheet and its tax base.

Current and deferred tax are recognized as income or an expense and included in profit and loss for the year, except to the extent that the tax arises from a transaction or event which is recognized, in the same or a different year, directly in equity, or from a business combination.

(i) *Taxable temporary differences*

Taxable temporary differences are recognized in all cases except where:

- They arise from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;
- They are associated with investments in subsidiaries over which the Group is able to control the timing of the reversal of the temporary difference and it is not probable that the temporary difference will reverse in the foreseeable future.

(ii) *Deductible temporary differences*

Deductible temporary differences are recognized provided that:

- It is probable that sufficient taxable income will be available against which the deductible temporary difference can be utilized, unless the differences arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;

(4) Significant Accounting Policies (Continued)

- The temporary differences are associated with investments in subsidiaries to the extent that the difference will reverse in the foreseeable future and sufficient taxable income is expected to be generated against which the temporary difference can be offset.

Tax planning opportunities are only considered when assessing the recoverability of deferred tax assets and if the Group intends to use these opportunities or it is probable that they will be utilized.

(iii) *Measurement*

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the years when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted. The tax consequences that would follow from the manner in which the Group expects to recover or settle the carrying amount of its assets or liabilities are also reflected in the measurement of deferred tax assets and liabilities.

At year end the Group reviews the fair value of deferred tax assets to write down the balance if it is not probable that sufficient taxable income will be available to apply the tax asset.

Deferred tax assets which do not meet the above conditions are not recognized in the consolidated balance sheet. At year end the Group assesses whether deferred tax assets which were previously not recognized now meet the conditions for recognition.

(iv) *Offset and classification*

The Group only offsets current tax assets and current tax liabilities if it has a legally enforceable right to set off the recognized amounts and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

The Group only offsets deferred tax assets and liabilities where it has a legally enforceable right, where these relate to income taxes levied by the same taxation authority and where the taxation authority permits the entity to settle on a net basis, or to realize the asset and settle the liability simultaneously for each of the future years in which significant amounts of deferred tax assets or liabilities are expected to be settled or recovered.

Deferred tax assets and liabilities are recognized in the consolidated balance sheet under non-current assets or liabilities, irrespective of the expected date of recovery or settlement.

(t) Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's chief operating decision maker to make decisions about resources to be allocated to the segment, assess its performance and, based on which, differentiated financial information is available.

(u) Classification of assets and liabilities as current and non-current

The Group classifies assets and liabilities in the consolidated balance sheet as current and non-current. Current assets and liabilities are determined as follows:

- Assets are classified as current when they are expected to be realized or are intended for sale or consumption in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are expected to be realized within twelve months after the reporting date or are cash or a cash equivalent, unless the assets may not be exchanged or used to settle a liability for at least twelve months after the reporting date.

(4) Significant Accounting Policies (Continued)

- Liabilities are classified as current when they are expected to be settled in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are due to be settled within twelve months after the reporting date or the Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date.
- Financial liabilities are classified as current when they are due to be settled within twelve months after the reporting date, even if the original term was for a period longer than twelve months, and an agreement to refinance, or to reschedule payments, on a long-term basis is completed after the reporting date and before the consolidated annual accounts are authorized for issue.

(v) Environmental issues

The Group takes measures to prevent, reduce or repair the damage caused to the environment by its activities.

Property, plant and equipment acquired by the Group for long-term use to minimize the environmental impact of its activity and protect and improve the environment, including the reduction and elimination of future pollution from the Group's operations, are recognized as assets applying the measurement, presentation and disclosure criteria described in note 4(g).

(5) Financial Risk Management Policy

(a) General

The Group is exposed to the following risks associated with the use of financial instruments:

- Credit risk
- Liquidity risk
- Market risk: includes interest rate risk, currency risk and other price risks.

This note provides information on the Group's exposure to each of these risks, the Group's objectives and procedures to measure and mitigate this risk, and the Group's capital management strategy. More exhaustive quantitative information is disclosed in note 30 to the consolidated annual accounts.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, define appropriate risk limits and controls and to control risks and comply with limits. Risk management policies and procedures are reviewed regularly so that they reflect changes in market conditions and the Group's activities. The Group's management procedures and rules are designed to create a strict and constructive control environment in which all employees understand their duties and obligations.

The Group's Audit Committee supervises how management controls compliance with the Group's risk management procedures and policies and reviews whether the risk management policy is suitable considering the risks to which the Group is exposed. This committee is assisted by Internal Audit which acts as supervisor. Internal Audit performs regular and ad hoc reviews of the risk management controls and procedures and reports its findings to the Audit Committee.

Credit risk

Credit risk is the risk to which the Group is exposed in the event that a customer or counterparty to a financial instrument fails to discharge a contractual obligation, and mainly results from trade receivables and the Group's investments in financial assets.

(5) Financial Risk Management Policy (Continued)

Trade receivables

The Group does not predict any significant insolvency risks as a result of delays in receiving payment from some European countries due to their current economic situation. The main risk in these countries is that of late payments, which is mitigated through the possibility of claiming interest as foreseen by prevailing legislation. No significant bad debt or late payment issues have been detected for sales to private entities.

The Group recognizes impairment based on its best estimate of the expected losses on trade and other receivables. The main impairment losses recognized are due to specific losses relating to individually identified risks. At year end, these impairment losses are immaterial.

Details of exposure to credit risk are disclosed in note 30.

Liquidity risk

Liquidity risk is the risk that the Group cannot meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure where possible, that it always has sufficient liquidity to settle its obligations at the maturity date, both in normal conditions and in times of tension, to avoid incurring unacceptable losses or tarnishing the Group's reputation.

The Group manages liquidity risk on a prudent basis, based on availability of cash and sufficient committed unused long-term credit facilities, enabling the Group to implement its business plans and carry out operations using stable and secure sources of financing.

At 31 December 2018 the Group has total cash and cash equivalents of Euros 1,033,792 thousand (Euros 886,521 thousand at 31 December 2017). The Group also has approximately Euros 404,808 thousand in unused credit facilities (Euros 381,165 thousand at 31 December 2017), including Euros 262,008 thousand on the revolving credit facility (Euros 250,146 thousand at 31 December 2017).

The structure of the Group's debt consists mainly of a non-current loan of US Dollars 5,992 million with institutional investors and banks divided into two tranches (Tranche A and Tranche B), in a US Dollars 300 million undrawn revolving credit facility and unsecured senior corporate notes for an amount of Euros 1,000 million.

As in previous years, the Group continues with its quarterly program for optimization of working capital, which is mainly based on contracts to sell receivables without recourse.

2018:

In September 2018 the Group received an additional non-current loan from the European Investment Bank totaling Euros 85,000 thousand. The loan will be used to support certain investments in R&D which are mainly focused on searching for new therapeutic for plasmatic proteins. Financial terms include a fixed interest rate for a period of 10 years with a grace period of two years. At 31 December 2018, the carrying amount of the loans obtained from the European Investment Bank is Euros 244,375 thousand (Euros 170,000 thousand at 31 December 2017).

2017:

On 5 December 2017 the Group received an additional loan from the European Investment Bank of up to Euros 85,000 thousand at a fixed interest rate for a period of 10 years with a grace period of 2 years. The loan will be used to support certain investments in R&D which are mainly focused on searching for new applications for plasmatic proteins. On 28 October 2015, the Group received its first loan from the same entity under the same terms, for a total amount of Euros 100,000 thousand.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total note issuance amounted to Euros 1,000 million.

(5) Financial Risk Management Policy (Continued)

On 6 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounts to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consisted of a US Dollars 6,000 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

Market risk

Market risk comprises the risk of changes in market prices, for example, exchange rates, interest rates, or the prices of equity instruments affecting the Group's revenues or the value of financial instruments it holds. The objective of managing market risk is to manage and control the Group's exposure to this risk within reasonable parameters at the same time as optimising returns.

(i) *Currency risk*

The Group operates internationally and is therefore exposed to currency risk when operating with foreign currencies, especially with regard to the US Dollar which is used in a significant percentage of transactions in foreign functional currencies. Currency risk is associated with future commercial transactions, recognized assets and liabilities, and net investments in foreign operations.

The Group holds significant investments in foreign operations, the net assets of which are exposed to currency risk. The conversion risk affecting net assets of the Group's foreign operations in US Dollars is mitigated primarily through borrowings in this foreign currency.

The Group's main exposure to currency risk is with regard to the US Dollar, which is used in a significant percentage of transactions in foreign functional currencies.

Details of the Group's exposure to currency risk at 31 December 2018 and 2017 of the most significant financial instruments are shown in note 30.

(ii) *Interest rate risk*

The Group's interest rate risks arise from current and non-current borrowings. Borrowings at variable interest rates expose the Group to cash flow interest rate risks. Fixed-rate borrowings expose the Group to fair value interest rate risk.

The objective of the management of interest rate risk is to achieve a balance in the structure of the debt, keeping part of the external resources issued at a fixed rate and covering part of the variable rate debt through hedges.

A significant part of the financing obtained accrues interest at fixed rates. This fixed interest debt (Senior Unsecured Notes) amounts to Euros 1,000 million, which represents approximately 54% of the Group's total debt in Euros. The additional loans of Euros 244,375 thousand received from the European Investment Bank represent approximately 13% of the Group's total debt in Euros.

Senior debt in Euros represents approximately 12% of the Group's total Senior debt at 31 December 2018 and 31 December 2017.

Total fixed-interest debt represents 19% of total debt at 31 December 2018 (19% at 31 December 2017).

(iii) *Market price risk*

Price risk affecting raw materials is mitigated by the vertical integration of the haemoderivatives business in a highly-concentrated sector.

(5) Financial Risk Management Policy (Continued)

(b) Capital management

The directors' policy is to maintain a solid capital base in order to ensure investor, creditor and market confidence and sustain future business development. The board of directors defines and proposes the level of dividends paid to shareholders.

The directors consider various arguments to calculate capital structure:

- The directors control capital performance using rates of returns on equity (ROE). At 31 December 2018 the ROE stood at 14% (18% at 31 December 2017). The ROE is calculated by dividing profit attributable to the Parent by the equity attributable to the Parent.

	Thousand of Euros	
	2018	2017
Profit attributable to the Parent	596,642	662,700
Equity attributable to the Parent	4,225,554	3,629,079
ROE	14%	18%

- In accordance with the senior secured debt contract, the Group is subject to compliance with some covenants. At 31 December 2018 and 2017, the Group complies with the covenants.
- Consideration of the Company's credit rating (see note 20 (d)).

The Parent held Class A and B treasury stock equivalent to 0.6% of its capital at 31 December 2018 (0.6% at 31 December 2017). The Group does not have a formal plan for repurchasing shares.

(6) Segment Reporting

In accordance with IFRS 8 "Operating Segments", financial information for operating segments is reported in the accompanying Appendix II, which forms an integral part of this note to the consolidated annual accounts.

Group companies are divided into four areas: companies from the industrial area, companies from the commercial area, companies from the services area and companies from the research area. Within each of these areas, activities are organized based on the nature of the products and services manufactured and marketed.

Assets, liabilities, income and expenses for segments include directly and reliably attributable items. Items which are not attributed to segments by the Group are:

- Balance sheet: cash and cash equivalents, current income tax assets and liabilities, deferred tax assets and liabilities and loans and borrowings.
- Statement of profit and loss: finance result and income tax.

(a) Operating segments

The operating segments defined by the steering committee are as follows:

- Bioscience: including all activities related with products derived from human plasma for therapeutic use.
- Hospital: comprising all non-biological pharmaceutical products and medical supplies manufactured by Group companies earmarked for hospital pharmacy. Products related with this business which the Group does not manufacture but markets as supplementary to its own products are also included.

(6) Segment Reporting (Continued)

- Diagnostic: including the marketing of diagnostic testing equipment, reagents and other equipment, manufactured by Group or other companies.
- Bio Supplies: since January 2017, the company is including all transactions related to biological products for non-therapeutic use, Kedrion production agreements, and third-party plasma sales channeled through Haema and Biotest in the new Bio Supplies Division resulting in a reclassification from Bioscience Division to Bio Supplies Division.
- Others: including the rendering of manufacturing services to third party companies.

As a result of the creation of the new Bio Supplies segment and the Intersegments, the Group has reviewed the allocation of balances and transactions by segments. The comparative figures for 2016 have been restated accordingly.

Details of net sales by groups of products for 2018, 2017 and 2016 are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Bioscience			
Haemoderivatives	3,516,704	3,429,785	3,228,275
Diagnostic			
Transfusional medicine	650,180	679,692	640,443
Other diagnostic	19,797	23,377	23,540
Hospital			
Fluid therapy and nutrition	52,574	47,699	46,210
Hospital supplies	58,014	52,466	52,373
Bio supplies	167,004	66,791	24,387
Others	22,451	18,263	34,602
Total	4,486,724	4,318,073	4,049,830

The Group has concluded that hemoderivative products are sufficiently alike to be considered as a whole for the following reasons:

- All these products are human plasma derivatives and are manufactured in a similar way.
- The customers and methods used to distribute these products are similar.
- All these products are subject to the same regulations regarding production and the same regulatory environment.

(b) Geographical information

Geographical information is grouped into four areas:

- United States of America and Canada
- Spain
- Rest of the European Union
- Rest of the world

The definition of these four segments is mainly due to the geographical level that the Group sets to manage its revenue as they respond to specific economic scenarios. The main framework of the Group is consistent with this geographical segment grouping, including the monitoring of its commercial operations and its information systems.

(6) Segment Reporting (Continued)

The financial information reported for geographical areas is based on sales to third parties in these markets as well as the location of assets.

(c) Main customers

In 2018 the revenue of two Bioscience segment customers represents approximately 23.1% of the Group's total revenues. For 2017 and 2016 one Bioscience segment customer represented 11.0% and 10.7% of the Group's total revenue, respectively.

(7) Goodwill

Details of and movement in this caption of the consolidated balance sheet at 31 December 2017 are as follows:

		Thousands of Euros			
	Segment	Balance at 31/12/2016	Business Combination	Translation differences	Balance at 31/12/2017
Net value					
Grifols UK.Ltd. (UK)	Bioscience	8,025	—	(280)	7,745
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	6,118
Biomat USA, Inc.(USA)	Bioscience	193,039	40,101	(27,886)	205,254
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	10,134	—	(591)	9,543
Grifols Therapeutics, Inc. (USA)	Bioscience	2,108,139	—	(255,234)	1,852,905
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	40,516
Grifols Diagnostic (Novartis & Hologic) (USA, Spain and Hong Kong)	Diagnostic	1,272,024	1,466,420	(302,537)	2,435,907
Kiro Grifols S.L. (Spain)	Hospital	—	26,510	—	26,510
		3,643,995	1,533,031	(586,528)	4,590,498
			(See note 3)		

(7) Goodwill (Continued)

Details of and movement in this caption of the consolidated balance sheet at 31 December 2018 are as follows:

		Thousands of Euros				
	Segment	Balance at 31/12/2017	Business Combination	Disposals	Translation differences	Balance at 31/12/2018
Net value						
Grifols UK.Ltd. (UK)	Bioscience	7,745	—	—	(63)	7,682
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	—	6,118
Biomat USA, Inc.(USA)	Bioscience	205,254	42,780	(2,827)	9,907	255,114
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,543	—	—	(272)	9,271
Grifols Therapeutics, Inc. (USA)	Bioscience	1,852,905	—	—	87,871	1,940,776
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	—	40,516
Grifols Diagnostic (Novartis & Hologic) (USA, Spain and Hong Kong)	Diagnostic	2,435,907	—	—	114,349	2,550,256
Kiro Grifols S.L. (Spain)	Hospital	26,510	(2,134)	—	—	24,376
Goetech LLC (USA)	Hospital	—	55,321	—	3,624	58,945
Haema AG (Germany)	Bioscience	—	171,134	—	—	171,134
Biotest Pharma Corp (USA)	Bioscience	—	136,234	—	2,808	139,042
		4,590,498	403,335	(2,827)	218,224	5,209,230
			(See note 3)			

Impairment testing:

As a result of the acquisition of Talecris in 2011, and for impairment testing purposes, the Group combines the CGUs allocated to the Bioscience segment, grouping them together at segment level, because substantial synergies were expected to arise on the acquisition of Talecris, and due to the vertical integration of the business and the lack of an independent organized market for the products. Because the synergies benefit the Bioscience segment globally they cannot be allocated to individual CGUs. The Bioscience segment represents the lowest level to which goodwill is allocated and is subject to control by Group management for internal control purposes.

Since the acquisition of Novartis' Diagnostic business unit in 2014, the Group combines Araclon, Progenika, Australia and Hologic's share of NAT donor screening unit acquisition into a single CGU for the Diagnostic business as the acquisition is supporting not only the vertically integration business but also cross-selling opportunities. In addition, for management purposes, the Group's management is focused on the business more than geographical areas or individual companies.

Due to the acquisition of an additional 40% stake of Kiro Grifols S.L. and a 51% stake of Goetech LLC (Medkeeper), the Group decided to group Kiro Grifols S.L., Laboratorios Grifols S.L. and Medkeeper into a single CGU for the Hospital business since the acquisitions are supporting cross-selling opportunities.

The CGUs established by Management are:

- Bioscience
- Diagnostic

(7) Goodwill (Continued)

- Hospital

The recoverable amount of the Bioscience CGU was calculated based on its value in use calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

The recoverable amount of the Diagnostic CGU was calculated based on its fair value less costs of disposal calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

The recoverable amount of the Hospital CGU was calculated based on its fair value less costs of disposal calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

This value in use and fair value less costs of disposal calculations use cash flow projections for five years based on the financial budgets approved by management. Cash flows estimated as of the year in which stable growth in the CGU has been reached are extrapolated using the estimated growth rates indicated below.

The key assumptions used in calculating impairment of the CGUs for 2017 were as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	9.50%
Diagnostic	2%	10.60%
Hospital	1.40%	13.30%

The key assumptions used in calculating impairment of the CGUs for 2018 have been as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	8.90%
Diagnostic	2%	9.40%
Hospital	1.50%	13.10%

Management determined budgeted gross margins based on past experience, investments in progress which would imply significant growth in production capacity and its forecast international market development. Perpetual growth rates are coherent with the forecasts included in industry reports. The discount rate used reflects specific risks related to the CGU.

As the recoverable amount of the Bioscience CGU is much higher than the carrying amount of the Bioscience segment's assets, specific information from the impairment test sensitivity analysis is not included.

At 31 December 2018 Grifols' stock market capitalization totals Euros 13,978 million (Euros 15,379 million at 31 December 2017).

(8) Other Intangible Assets

Details of other intangible assets and movement during the years ended 31 December 2018 and 2017 are included in Appendix III, which forms an integral part of these notes to the consolidated annual accounts.

Intangible assets acquired from Talecris mainly include currently marketed products. Identifiable intangible assets correspond to Gamunex and have been recognized at fair value at the acquisition date of Talecris and classified as currently marketed products. Intangible assets recognized comprise the rights on the Gamunex product, its commercialization and distribution license, trademark, as well as relations with hospitals. Each of these components is closely linked and fully complementary, are subject to similar risks and have a similar regulatory approval process.

(8) Other Intangible Assets (Continued)

Intangible assets acquired from Progenika mainly include currently marketed products. Identifiable intangible assets correspond to blood, immunology and cardiovascular genotyping. These assets have been recognized at fair value at the acquisition date of Progenika and classified as currently marketed products.

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2017 is as follows:

	Thousands of Euros			
	Balance at 31/12/2016	Additions	Translation differences	Balance at 31/12/2017
Cost of currently marketed products—Gamunex	1,138,412	—	(137,828)	1,000,584
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(211,871)	(35,837)	28,136	(219,572)
Accumulated amortisation of currently marketed products—Progenika	(9,117)	(2,379)	—	(11,496)
Carrying amount of currently marketed products	941,216	(38,216)	(109,692)	793,308

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2018 is as follows:

	Thousands of Euros			
	Balance at 31/12/2017	Additions	Translation differences	Balance at 31/12/2018
Cost of currently marketed products—Gamunex	1,000,584	—	47,451	1,048,035
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(219,572)	(33,775)	(11,573)	(264,920)
Accumulated amortisation of currently marketed products—Progenika	(11,496)	(2,379)	—	(13,875)
Carrying amount of currently marketed products	793,308	(36,154)	35,878	793,032

The estimated useful life of the currently marketed products acquired from Talecris is considered limited, has been estimated at 30 years on the basis of the expected life cycle of the product (Gamunex) and is amortized on a straight-line basis.

At 31 December 2018 the residual useful life of currently marketed products is 22 years and 5 months (23 years and 5 months at 31 December 2017).

The estimated useful life of the currently marketed products acquired from Progenika is considered limited, has been estimated at 10 years on the basis of the expected life cycle of the product and is amortized on a straight-line basis.

At 31 December 2018 the residual useful life of currently marketed products acquired from Progenika is 4 years and 2 months (5 years and 2 months at 31 December 2017).

(a) Self-constructed intangible assets

At 31 December 2018 the Group has recognized Euros 58,254 thousand as self-constructed intangible assets (Euros 49,782 thousand at 31 December 2017).

(8) Other Intangible Assets (Continued)

(b) Purchase commitments

At 31 December 2018 the Group has intangible asset purchase commitments amounting to Euros 589 thousand (Euros 1,199 thousand at 31 December 2017).

(c) Intangible assets with indefinite useful lives and other intangibles in progress

At 31 December 2018 the Group recognizes plasma center licenses with indefinite useful lives under intangible assets for a carrying amount of Euros 26,917 thousand (Euros 26,631 thousand at 31 December 2017).

The Group has also an amount of Euros 206,087 thousand as development costs in progress (Euros 183,281 thousand at 31 December 2017).

(d) Result on disposal of intangible assets

Total profit on disposals of intangible assets in 2018 amount to Euros 8,101 thousand (Euros 83 thousand of loss in 2017) and mainly corresponds to the sale of plasma centers to Kedplasma.

(e) Impairment testing

Indefinite-lived intangible assets have been allocated to the cash-generating unit (CGU) of the Bioscience segment. These assets have been tested for impairment together with goodwill (see note 7).

Impairment testing has been analyzed for each of the intangible assets in progress by calculating its recoverable amount based on their fair value.

On 29 January 2018 (prior to the date that the 2017 consolidated annual accounts were authorized for issued) Aradigm communicated that it had not obtained the approval of the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration (FDA) for Linahiq™. As the Committee did not recommend it as a treatment for non-cystic fibrosis bronchiectasis patients with chronic lung *Pseudomonas aeruginosa* infections, the intangible assets related to the product have been totally impaired and recognized as R&D expense in the statement of profit and loss for 2017 for an amount of Euros 63,675 thousand. In 2017 the investment in this company and the bonds that the Group held with the company were impaired.

(9) Property, Plant and Equipment

Details of property, plant and equipment and movement in the consolidated balance sheet at 31 December 2018 and 2017 are included in Appendix IV, which forms an integral part of this note to the consolidated annual accounts. Property, plant and development under construction at 31 December 2018 and 2017 mainly comprise investments made to extend the companies' equipment and to increase their productive capacity.

In 2018, the Group has capitalized interests for a total amount of Euros 8,955 thousand (Euros 8,839 thousand in 2017)

a) Insurance

Group policy is to contract sufficient insurance coverage for the risk of damage to property, plant and equipment. At 31 December 2018 the Group has a combined insurance policy for all Group companies, which more than adequately covers the carrying amount of all the Group's assets.

(9) Property, Plant and Equipment (Continued)

b) Losses on disposal of property, plant and equipment

Total losses incurred on disposals of property, plant and equipment for 2018 amount to Euros 1,401 thousand (Euros 1,468 thousand of loss in 2017).

c) Assets under finance lease

The Group contracted the following types of property, plant and equipment under finance leases at 31 December 2017:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,545	(815)	1,730
Plant and machinery	14,249	(6,564)	7,685
	16,794	(7,379)	9,415

The Group has contracted the following types of property, plant and equipment under finance leases at 31 December 2018:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,389	(898)	1,491
Plant and machinery	15,690	(7,237)	8,453
	18,079	(8,135)	9,944

Details of minimum lease payments and the present value of finance lease liabilities, disclosed by maturity date, are detailed in note 20 (c).

d) Self-constructed property, plant and equipment

At 31 December 2018 the Group has recognized Euros 66,995 thousand as self -constructed property, plant and equipment (Euros 52,218 thousand at 31 December 2017).

e) Purchase commitments

At 31 December 2018 the Group has property, plant and equipment purchase commitments amounting to Euros 47,148 thousand (Euros 39,675 thousand at 31 December 2017).

f) Impairment

A group of assets forming part of the Hospital segment has been tested for impairment due to the decrease in the results of the segment and no impairment has been observed. The recoverable amount of the aforementioned assets is calculated based on the fair value less cost of disposal, using cash flow projections based on five-year financial budgets approved by management. Cash flows estimated as of the year in which stable growth has been reached by the assets are extrapolated using a pre-tax discount rate of 10.1% and a perpetual growth rate of 2% (12.2% and 2% respectively in fiscal year 2017).

(10) Equity Accounted Investees

Details of this caption in the consolidated balance sheet at 31 December 2018 and 2017 are as follows:

	% ownership	Thousands of Euros 31/12/2018	% ownership	Thousands of Euros 31/12/2017
Alkahest, Inc.	47.58%	28,336	47.58%	30,559
Albajuna Therapeutics, S.L	30.00%	1,106	30.00%	1,956
Interstate Blood Bank, Inc.	49.19%	29,595	49.19%	27,936
Bio Blood Components Inc.	48.97%	38,223	48.97%	32,960
Plasma Biological Services, LLC	48.90%	21,809	48.90%	23,010
Singulex, Inc.	19.33%	19,256	19.33%	29,322
GigaGen, Inc	43.96%	28,363	43.96%	29,047
Access Biologicals LLC	49.00%	47,742	49.00%	44,219
Aigües de Vilajuïga, S.A.	—	—	50.00%	—
Plasmavita HealthCare	50.00%	9,920	—	—
Mecwins, S.A.	24.99%	2,555	—	—
		226,905		219,009

Movement in the investments in equity-accounted investees for the years ended at 31 December 2018, 2017 and 2016 have been as follows:

	Thousands of Euros		
	2018	2017	2016
Balance at 1 January	219,009	201,345	76,728
Acquisitions	12,222	80,685	136,072
Transfers	500	(16,000)	(29,059)
Share of profit / (losses)	(11,038)	(13,195)	6,933
Share of other comprehensive income / translation differences	9,270	(27,134)	10,671
Losses for Impairment	—	(6,692)	—
Collected dividends	(3,058)	—	—
Balance at 31 December	226,905	219,009	201,345

Mecwins, S.A.

On 22 October, 2018 Grifols has allocated Euros 2 million to the capital increase of Mecwins through Progenika Biopharma, reaching 24.99% of the total capital.

Mecwins is a spin-off of the Institute of Micro and Nanotechnology of the Center for Scientific Research (CSIC), specialized in the development of innovative nanotechnological analysis tools for the diagnosis and prognosis of diseases.

Mecwins has developed ultrasensitive optical reading immunoassay technology from nanosensors for the detection of protein biomarkers in blood. This technology has potential applications in fields such as oncology, cardiovascular and infectious diseases.

The injection of capital, in which CRB Inverbio has also participated with an additional Euros 2 million, will enable Mecwins to start developing pre-commercial prototypes of this technology and for Grifols to position itself in the field of nanotechnology applied to diagnosis.

Plasmavita Healthcare GmbH

Refer to note 3 for details of this investment.

(10) Equity Accounted Investees (Continued)

GigaGen Inc.

On 5 July 2017, Grifols through its 100% subsidiary Grifols Innovation and New Technologies Limited ("GIANT") acquired a 43.96% shareholding in GigaGen, Inc., a company based in San Francisco (USA) for the amount of US Dollars 35 million.

GIANT and GigaGen entered into a Research and Collaboration Agreement whereby in exchange of a collaboration fee of US Dollars 15 million in the aggregate, GigaGen will commit to carry out research activities to develop recombinant polyclonal immunoglobulin therapies derived from human B cells for the treatment of human diseases.

Movement in Gigagen's equity-accounted investment for the years ended 31 December 2018 and 2017 is as follows:

	Thousand of Euros	
	31/12/2018	31/12/2017
Balance at 1 January	29,047	—
Acquisitions	—	31,752
Share of profit / (losses)	(1,562)	(804)
Share of other comprehensive income / translation differences	878	(1,595)
Pérdidas por deterioro de valor	—	(306)
Balance at 31 December	28,363	29,047

Access Biologicals LLC.

On 12 January 2017, the group announced the acquisition of 49% of the voting rights in Access Biologicals LLC, a company based in San Diego, California, USA, for the amount of US Dollars 51 million. Grifols entered into an option agreement to purchase the remaining 51% voting rights in five years, in 2022. Grifols also signed a supply agreement to sell to Access Biologicals biological products not meant for therapeutic use.

The principal business activity of Access Biologicals is the collection and manufacturing of an extensive portfolio of biologicals products. Combined with closed-loop material sourcing, it provides critical support for various markets such as in-vitro diagnostic manufacturing, biopharmaceutical, cell culture and diagnostic research & development.

Movement in Access Biological's equity-accounted investment for the years ended 31 December 2017 and 2018 is as follows:

	Thousand of Euros	
	31/12/2018	31/12/2017
Balance at 1 January	44,219	—
Acquisitions	—	48,383
Share of profit / (losses)	3,039	1,830
Share of other comprehensive income / translation differences	2,073	(5,994)
Collected dividends	(1,589)	—
Balance at 31 December	47,742	44,219

Singulex, Inc.

On 17 May 2016 Grifols subscribed and paid a capital increase for an amount of US Dollars 50 million (Euros 44,107 thousand) in the US company Singulex, Inc. ("Singulex"). As a result, Grifols holds a 19.33% common stock interest in Singulex on a fully diluted basis at a pre-money valuation of US Dollars 200 million. Grifols will be entitled to appoint a director to serve the board of directors of Singulex. As a result, Singulex granted Grifols an exclusive worldwide license for the use and sale of Singulex' technology for the blood donor and plasma screening to further ensure the safety of blood and plasma products.

(10) Equity Accounted Investees (Continued)

Movement in Singulex, Inc.'s equity-accounted investment for the years ended 31 December 2018 and 2017 is as follows:

	Thousand of Euros	
	31/12/2018	31/12/2017
Balance at 1 January	29,322	43,329
Share of profit / (losses)	(10,975)	(9,335)
Share of other comprehensive income / translation differences	909	(4,672)
Balance at 31 December	19,256	29,322

Interstate Blood Bank, Inc., Bio-Blood Components, Inc. and Plasma Biological Services, Llc.

On 11 May 2016 Grifols acquired a 49.19% stake in Interstate Blood Bank, Inc. (IBBI), 48.97% of Bio-Blood Components, Inc. (Bio-Blood) and 48.90% of Plasma Biological Services, LLC. (PBS) ("IBBI Group"), a group based in Memphis, USA, for the price of US Dollars 100 million (Euros 88,215 thousand). GWWO also entered into an option agreement to purchase the remaining stakes for a price of US Dollars 100 million for an option price of US Dollars 10 million (Euros 9,007 thousand) (see notes 11 and 30). The purchase price and the call right were paid upon signature of the contract. The principal business activity of IBBI and its affiliates is the collection of plasma for the plasma fractionation industry, with 23 plasma collection centers, 9 blood donation centers and one laboratory.

Movement in Interstate Blood Bank, Inc., Bio-blood Components, Inc. and Plasma Biological Services, LLC.'s equity-accounted investment for the years ended 31 December 2017 and 2018 is as follows:

	Thousands of Euros			Thousands of Euros				
	31/12/2018			31/12/2017				
	IBBI	Bio-Blood	PBS	IBBI	Bio-Blood	PBS	TOTAL 2018	TOTAL 2017
Balance at 1 January	27,936	32,960	23,010	31,090	38,725	25,890	83,906	95,705
Share of profit / (losses)	1,830	3,492	(2,181)	635	(1,181)	270	3,141	(276)
Share of other comprehensive income / translation differences	1,298	1,771	980	(3,789)	(4,584)	(3,150)	4,049	(11,523)
Collected dividend	(1,469)	—	—	—	—	—	(1,469)	—
Balance at 31 December	29,595	38,223	21,809	27,936	32,960	23,010	89,627	83,906

Kiro Grifols, S.L.

On 25 July 2017 the Group acquired an additional 40% interest in Kiro Grifols, S.L (formerly Kiro Robotics, S.L.) for an amount of Euros 12.8 million. With this new acquisition, Grifols owns 90% in Kiro Grifols S.L., which is now considered part of the group, and starts using the global consolidation method instead of the equity method (see note 3(b)).

(11) Financial Assets

Details of non-current financial assets on the consolidated balance sheet at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Non-current derivatives (see note 30)	—	8,338
Financial investments in shares with stock market (a)	7	38,708
Total Non-current financial assets measured at fair value	7	47,046
Non-current guarantee deposits	5,566	4,820
Other non-current financial assets	1,908	1,346
Non-current loans to related parties (see note 31)	82,969	—
Non-current loans to EEAA (c) (see note 31)	17,151	16,677
Total Non-current financial assets measured at amortized cost	107,594	22,843

Details of other current financial assets on the consolidated balance sheet at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Current derivatives (b) (see note 30)	19,934	—
Total Non-current financial assets measured at fair value	19,934	—

	Thousands of Euros	
	31/12/2018	31/12/2017
Deposits and guarantees	822	702
Current loans to third parties	56	59
Current loans to associates (c) (see note 31)	33,153	9,977
Total other current financial assets	34,031	10,738

(a) Financial investments in quoted shares

Within the framework of its integrated R & D & I strategy, which assesses the adequacy of the various projects, Grifols made the decision to divest in TiGenix and participated in the takeover bid by Takeda in the first half of 2018. Divestment has generated a cash inflow of Euros 70.1 million and a positive impact on the consolidated profit of Euros 32 million (see note 26).

(b) Current derivatives

At 31 December 2018, current derivatives correspond to the purchase options described below:

- Option to purchase the non-acquired shares of Interstate Blood Bank, Inc., Bio-Blood Components, Inc. and Plasma Biological Services, LLC. The purchase option may be exercised by the Group by written notification at any time between 1 February 2019 and 30 April 2019 (see note 30).
- Option to purchase Biotest Pharmaceuticals Corporation over two donation centers of ADMA Centers. The execution of the purchase option was executed on 1 January 2019 (see note 30).

(c) Non-current loans to EEAA

On 2 October 2017 the Group's subsidiary Grifols Diagnostic Solutions, Inc. granted a loan to Singulex Inc. of US Dollars 20,000 thousand (Euros 16,676 thousand), that bear at an interest rate of 5%

(11) Financial Assets (Continued)

and mature on 19 September 2019. In the first half of 2018, the Group made an additional contribution amounting to US Dollars 12,339 (Euros 11,063 thousand). The Group owns 19.33% of the common stock of Singulex Inc.

On 8 February 2017, the subsidiary Grifols Worldwide Operations granted a loan of US Dollars 11,000 thousand (Euros 10,809 thousand) to Interstate Blood Bank Inc, with interest at a rate of 4% and due on 6 February 2022. The Group owns 49.19% of the capital of Interstate Blood Bank Inc.

(12) Inventories

Details of inventories at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Goods for resale	118,876	105,013
Raw materials and supplies	647,399	454,371
Work in progress and semi-finished goods	744,436	592,612
Finished goods	438,649	477,297
	1,949,360	1,629,293

Movement in the inventory provision was as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Balance at 1 January	35,764	33,069	22,614
Net charge for the year	10,398	8,232	8,878
Cancellations for the year	(558)	(357)	(20)
Translation differences	3,236	(5,180)	1,597
Balance at 31 December	48,840	35,764	33,069

(13) Trade and Other Receivables

Details at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Trade receivables	289,316	302,685
Receivables from associates (note 31)	382	3,219
Bad debt provision (note 30)	(20,531)	(19,706)
Trade receivables	269,167	286,198
Other receivables (note 30)	9,901	7,485
Personnel	2,082	566
Advance payments (note 30)	35,426	11,181
Taxation authorities, VAT recoverable	42,707	20,105
Other public entities	2,302	1,344
Other receivables	92,418	40,681
Current income tax assets	42,205	59,531
	403,790	386,410

(13) Trade and Other Receivables (Continued)

Other receivables

During 2018, 2017 and 2016 certain companies of the Grifols Group have sold receivables from several public entities, without recourse, to certain financial institutions. Under some of these contracts, the Group receives an initial payment which usually amounts to 90% of the nominal amount of the receivables sold less the associated sale and purchase costs. The deferred collection (equivalent to the rest of the nominal amount) will be made by the Group once the financial institution has collected the nominal amount of the receivables (or the interest, if the balances are received after more than 36 months, depending on the terms of each particular contract) and this amount is recognized in the consolidated balance sheet as a balance receivable from the financial institution. The deferred amount (equivalent to the continuing involvement) totals Euros 1,220 thousand at 31 December 2018 (Euros 1,800 thousand at 31 December 2017), which does not differ significantly from its fair value and coincides with the amount of maximum exposure to losses. The financial institution makes the initial payment when the sale is completed and therefore, the bad debt risk associated with this part of the nominal amount of the receivables is transferred. The Group has transferred the credit risk and control of the receivables to certain financial institutions and has therefore derecognized the asset transferred in the consolidated balance sheet, as the risks and rewards inherent to ownership have not been substantially retained.

Certain foreign Group companies have also entered into a contract to sell receivables without recourse to various financial institutions.

Total balances receivable without recourse sold to financial institutions through the aforementioned contracts in 2018 amount to Euros 1,188,216 thousand (Euros 912,204 thousand in 2017 and Euros 870,324 thousand in 2016).

The finance cost of these operations for the Group totals approximately Euros 6,053 thousand which has been recognized under finance costs in the consolidated statement of profit and loss for 2018 (Euros 3,973 thousand in 2017 and Euros 4,885 thousand in 2016) (see note 26).

Details of balances with related parties are shown in note 31.

(14) Cash and Cash Equivalents

Details of this caption of the consolidated balance sheet at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Current deposits	441,614	655,463
Cash in hand and at banks	592,178	231,058
Total cash and cash equivalents	1,033,792	886,521

(15) Equity

Details of consolidated equity and movement are shown in the consolidated statement of changes in equity.

(a) Share capital

At 31 December 2018 and 2017, the Company's share capital amounts to Euros 119,603,705 and comprises:

- Class A shares: 426,129,798 ordinary shares of Euros 0.25 par value each, subscribed and fully paid and of the same class and series.
- Class B shares: 261,425,110 non-voting preference shares of 0.05 Euros par value each, of the same class and series, and with the preferential rights set forth in the Company's by-laws.

(15) Equity (Continued)

The main characteristics of the Class B shares are as follows:

- Each Class B share entitles its holder to receive a minimum annual preferred dividend out of the distributable profits at the end of each year equal to Euros 0.01 per Class B share provided that the aggregate preferred dividend does not exceed the distributable profits of that year and a distribution of dividends has been approved by the Company's shareholders. This preferred dividend is not cumulative if sufficient distributable profits are not obtained in the period.
- Each Class B share is entitled to receive, in addition to the above-mentioned preferred dividend, the same dividends and other distributions as for one Grifols ordinary share.
- Each Class B share entitles the holder to its redemption under certain circumstances, if a takeover bid for all or part of the shares in the Company has been made, except if holders of Class B shares have been entitled to participate in the bid on the same terms as holders of Class A shares. The redemption terms and conditions reflected in the Company's by-laws limit the amount that may be redeemed, requiring that sufficient distributable reserves be available, and limit the percentage of shares to be redeemed in line with the ordinary shares to which the bid is addressed.
- In the event the Company were to be wound up and liquidated, each Class B share entitles the holder to receive, before any amounts are paid to holders of ordinary shares, an amount equal to the sum of (i) the par value of the Class B share, and (ii) the share premium paid for the Class B share when it was subscribed. In addition to the Class B liquidation preference amount, each holder is entitled to receive the same liquidation amount that is paid for each ordinary share.

These shares are freely transferable.

Since 23 July 2012 the ADSs (American Depositary Shares) representing Grifols' Class B shares (non-voting shares) have had an exchange ratio of 1:1 in relation to Class B shares, ie.1 ADS represents 1 Class B share. The previous rate was 2 ADS per 1 Class B share.

The Company's knowledge of its shareholders is based on information provided voluntarily or in compliance with applicable legislation. According to the information available to the Company, there are no interests representing more than 10% of the Company's total capital at 31 December 2018 and 2017.

At 31 December 2018 and 2017, the number of outstanding shares is equal to the total number of Company shares, less treasury stock.

Movement in outstanding shares during 2017 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2017	426,129,798	256,694,375
(Acquisition) / disposal of treasury stock (note 15 (d))	—	432,929
Balance at 31 December 2017	426,129,798	257,127,304

Movement in outstanding shares during 2018 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2018	426,129,798	257,127,304
(Acquisition) / disposal of treasury stock (note 15 (d))	—	479,355
Balance at 31 December 2018	426,129,798	257,606,659

(b) Share premium

Movement in the share premium is described in the consolidated statement of changes in equity, which forms an integral part of this note to the consolidated annual accounts.

(15) Equity (Continued)

(c) Reserves

The drawdown of accumulated gains is subject to legislation applicable to each of the Group companies. At 31 December 2018, Euros 35,613 thousand equivalent to the carrying amount of development costs pending amortization of certain Spanish companies (Euros 40,061 thousand at 31 December 2017) (see note 8) are, in accordance with applicable legislation, restricted reserves which cannot be distributed until these development costs have been amortized.

In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After these capital increases, Grifols' interest rose to 100% in 2016. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 0.6 million decrease in reserves.

In August 2016 Araclon Biotech, S.L. increased capital by an amount of Euros 6.7 million. As a result, the Group increased its investment from 70.83% to 73.22%. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 1.7 million decrease in reserves.

On 12 December 2016, the Group subscribed a share capital increase in the capital of VCN Biosciences, S.L. of Euros 5 million. After this capital increase, Grifols interest rose to 81.34% in 2016. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 1 million decrease in reserves.

In October 2017, the Group acquired 12,020 Progenika Biopharma, S.A. shares As a result, the Group has increased its investment from 89.25% to 90.23%. The difference between the share capital increase carried out by the Group and the non-controlling interest has been recognized as a Euros 374 thousand decrease in reserves.

In June 2018, Grifols made the decision to divest in TiGenix and participated in the takeover bid made by Takeda in the first half of 2018. This divestment has generated a positive impact on reserves of Euros 4,900 thousand and a negative impact of Euros 4,900 thousand in "Other comprehensive income".

In June 2018, Grifols executed the purchase option for 6.41% of the shares of Progenika owned by Ekarpen Private Equity, S.A. for an amount of Euros 5,300 thousand. As a result, the Group increased its interest from 90.23% to 96.64%. The difference between the acquisition carried out by the Group and the non-controlling interest was recognized in reserves.

In September 2018, the Group acquired 41,387 shares of Progenika Biopharma, S.A for an amount of Euros 4,333 thousand. As a result, the Group increased its interest from 96.64% to 99.99%. The difference between the acquisition carried out by the Group and the non-controlling interest was recognized against reserves.

At 31 December 2018 and 2017 reserves include the IFRS-EU first-time adoption revaluation reserves and legal reserve of certain Group companies.

Legal reserve

Companies in Spain are obliged to transfer 10% of each year's profits to a legal reserve until this reserve reaches an amount equal to 20% of share capital. This reserve is not distributable to shareholders and may only be used to offset losses if no other reserves are available. Under certain conditions it may be used to increase share capital provided that the balance left on the reserve is at least equal to 10% of the nominal value of the total share capital after the increase.

At 31 December 2018 and 2017 the legal reserve of the Company amounts to Euros 23,921 thousand, which corresponds to 20% of the share capital.

(15) Equity (Continued)

Distribution of the legal reserves of Spanish companies is subject to the same restrictions as those of the Company and at 31 December 2018 the balance of the legal reserve of other Spanish companies amounts to Euros 2,527 thousand (Euros 2,416 thousand at 31 December 2017).

Other foreign Group companies have a legal reserve amounting to Euros 843 thousand at 31 December 2018 (Euros 731 thousand at 31 December 2017).

(d) Treasury stock

At 31 December 2018 and December 2017 the Company does not have any Class A treasury stock.

Movement in Class B treasury stock during 2017 was as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2017	4,730,735	68,710
Disposal Class B shares	(432,929)	(6,288)
Balance at 31 December 2017	4,297,806	62,422

Movement in Class B treasury stock during 2018 is as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2018	4,297,806	62,422
Disposal Class B shares	(479,355)	(6,981)
Balance at 31 December 2018	3,818,451	55,441

In March 2018 the Group delivered 480,661 treasury stocks (Class B shares) to eligible employees as compensation for the Restricted Share Unit Retention Plan (see note 29).

In March 2017 the Group delivered 432,929 treasury stocks (Class B shares) to eligible employees as a compensation for the Restricted Share Unit Retention Plan (see note 29).

The Parent held Class B treasury stock equivalent to 0.6% of its capital at 31 December 2018 (0.6% at 31 December 2017).

(e) Distribution of profit

The profits of Grifols, S.A. and subsidiaries will be distributed as agreed by respective shareholders at their general meetings.

The proposed distribution of profit of the Parent Grifols, S.A. for the years ended 31 December 2018, and the distribution of profit approved for 2017, presented at the general meeting held on 25 May 2018, is as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Voluntary reserve	91,059	76,247
Dividends	238,659	265,080
Profit of the Parent	329,718	341,327

(15) Equity (Continued)

The following dividends were paid in 2017:

	31/12/2017		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	54%	0.14	57,790
Non-voting shares	271%	0.14	34,870
Non-voting shares (preferred dividend)	20%	0.01	2,614
Total dividends paid			95,274

	31/12/2017		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	72%	0.18	76,703
Non-voting shares (interim dividend)	360%	0.18	46,283
Total interim dividends paid			122,986

The following dividends were paid in 2018:

	31/12/2018		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	82%	0.20	86,929
Non-voting shares	408%	0.20	52,551
Non-voting shares (preferred dividend)	20%	0.01	2,614
Total dividends paid			142,094

	31/12/2018		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	80%	0.2	85,226
Non-voting shares (interim dividend)	400%	0.2	51,521
Total interim dividends paid			136,747

At the meeting held on 26 October, 2018, the Board of Directors of Grifols approved the distribution of interim dividend for 2018, of Euros 0.20 for each Class A and B share, recognizing a total of Euros 136,747 thousand as interim dividend.

At the meeting held on 27 October 2017, the Board of Directors of Grifols approved the distribution of interim dividend for 2017 of Euros 0.18 for each Class A and B share, recognizing a total of Euros 122,986 thousand as interim dividend.

These amounts to be distributed did not exceed the profits generated by the Company since the end of the last reporting period, less the estimated income tax payable on these profits, in accordance with article 277 of the Revised Spanish Companies Act.

The Statement of Liquidity for Distribution of Interim Dividend of Grifols, S.A. prepared in accordance with legal requirements and which shows the existence of sufficient liquidity to be able to distribute the aforementioned interim dividend is provided in Appendix V.

At a general meeting held on 25 May 2018 the shareholders approved the distribution of a preferred dividend of Euros 0.01 for every Class B non-voting share.

(15) Equity (Continued)

The distribution of the profit for the years ended 31 December 2017 and 2018 is presented in the consolidated statement of changes in equity.

(f) Restricted Share Unit Retention Plan

The Group has set up a Restricted Share Unit Retention Plan (hereinafter RSU Plan) for certain employees (see note 29). This commitment will be settled using equity instruments and the cumulative accrual amounts to Euros 12,652 thousand at 31 December 2018 (Euros 13,871 thousand at 31 December 2017).

(16) Earnings Per Share

The calculation of basic earnings per share is based on the profit for the year attributable to the shareholders of the Parent divided by the weighted average number of ordinary shares in circulation throughout the year, excluding treasury stock.

Details of the calculation of basic earnings per share are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	596,642	662,700	545,456
Weighted average number of ordinary shares outstanding	684,709,377	684,197,276	683,225,815
Basic earnings per share (Euros per share)	0.87	0.97	0.80

The weighted average of the ordinary shares outstanding (basic) has been calculated taking into consideration the share split carried out on 4 January 2016 as follows:

	Number of shares		
	31/12/2018	31/12/2017	31/12/2016
Issued shares outstanding at 1 January	684,346,294	683,854,491	683,516,338
Effect of shares issued	—	—	—
Effect of treasury stock	363,083	342,785	(290,523)
Average weighted number of ordinary shares outstanding (basic) at 31 December	684,709,377	684,197,276	683,225,815

Diluted earnings per share are calculated by dividing profit for the year attributable to shareholders of the Parent by the weighted average number of ordinary shares in circulation considering the diluting effects of potential ordinary shares.

The RSU Plan granted by the Group and payable in shares, assumes the existence of dilutive potential shares. Diluted earnings per share have been calculated as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	596,642	662,700	545,456
Weighted average number of ordinary shares outstanding (diluted)	684,686,164	684,243,891	684,170,887
Diluted earnings per share (Euros per share)	0.87	0.97	0.80

(16) Earnings Per Share (Continued)

The weighted average number of ordinary shares outstanding diluted has been calculated as follows:

	Number of shares		
	31/12/2018	31/12/2017	31/12/2016
Issued shares outstanding at 1 January	684,346,294	683,854,491	683,988,460
Effect of RSU shares	(23,213)	46,615	472,950
Effect of shares issued	—	—	—
Effect of treasury stock	363,083	342,785	(290,523)
Average weighted number of ordinary shares outstanding (diluted) at 31 December	684,686,164	684,243,891	684,170,887

(17) Non-Controlling Interests

Details of non-controlling interests and movement at 31 December 2017 are as follows:

	Thousands of Euros					
	Balance at 31/12/2016	Additions	Disposals	Business Combination / Additions to Consolidated Group	Translation differences	Balance at 31/12/2017
Grifols (Thailand) Pte Ltd	3,354	433	(77)	—	(131)	3,579
Grifols Malaysia Sdn Bhd	1,172	229	—	—	(29)	1,372
Araclon Biotech, S.A.	140	(1,617)	—	—	—	(1,477)
Progenika Biopharma, S.A.	1,211	(60)	(298)	—	27	880
Abyntek Biopharma, S.L.	(73)	45	28	—	—	—
VCN Bioscience, S.L	693	(272)	—	—	—	421
Kiro Grifols, S.L.	—	(144)	—	255	—	111
	6,497	(1,386)	(347)	255	(133)	4,886

Details of non-controlling interests and movement at 31 December 2018 are as follows:

	Thousands of Euros					
	Balance at 31/12/2017	Additions	Disposals	Business Combination / Additions to Consolidated Group	Translation differences	Balance at 31/12/2018
Grifols (Thailand) Pte Ltd	3,579	193	(43)	—	206	3,935
Grifols Malaysia Sdn Bhd	1,372	326	—	—	37	1,735
Araclon Biotech, S.A.	(1,477)	(2,011)	—	—	—	(3,488)
Progenika Biopharma, S.A.	880	—	(871)	—	—	9
VCN Bioscience, S.L	421	(281)	—	—	—	140
Kiro Grifols, S.L.	111	(463)	—	—	—	(352)
Haema AG	—	—	—	220,190	—	220,190
Biotest Pharma Corp	—	—	—	249,691	(810)	248,881
	4,886	(2,236)	(914)	469,881	(567)	471,050

(18) Grants

Details are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Capital grants	11,149	11,010
Interest rate grants (preference loans) (See note 20 (e))	696	812
	11,845	11,822

Interest-rate grants (preference loans) reflect the implicit interest on loans extended by the Spanish Ministry of Science and Technology as these are interest free.

Grants totaling Euros 1,166 thousand have been recognized in the consolidated statement of profit and loss for the year ended at 31 December 2018 (Euros 323 thousand for the year ended at 31 December 2017).

(19) Provisions

Details of provisions at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Non-current provisions (a)		
Provisions for pensions and similar obligations	5,296	4,742
Other provisions	818	1,021
Non-current provisions	6,114	5,763

	Thousands of Euros	
	31/12/2018	31/12/2017
Current provisions (b)		
Trade provisions	80,055	106,995
Current provisions	80,055	106,995

(a) Non-current provisions

At 31 December 2018, 2017 and 2016 provisions for pensions and similar obligations mainly comprise a provision made by certain foreign subsidiaries in respect of labor commitments with certain employees.

Movement in provisions during 2016 was as follows:

	Thousands of Euros					
	Balance at 31/12/2015	Net charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2016
Non-current provisions	4,980	(399)	(281)	814	4	5,118
	4,980	(399)	(281)	814	4	5,118

(19) Provisions (Continued)

Movement in provisions during 2017 was as follows:

	Thousands of Euros						
	Balance at 31/12/2016	Business combination	Net charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2017
Non-current provisions . .	5,118	23	422	(23)	290	(67)	5,763
	5,118	23	422	(23)	290	(67)	5,763

Movement in provisions during 2018 is as follows:

	Thousands of Euros					
	Balance at 31/12/2017	Net charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2018
Non-current provisions	5,763	635	(565)	277	4	6,114
	5,763	635	(565)	277	4	6,114

(b) Current provisions

Movement in trade provisions during 2016 was as follows:

	Thousands of Euros				
	Balance at 31/12/2015	Net charge	Cancellations	Translation differences	Balance at 31/12/2016
Trade provisions	123,049	(28,481)	(6,417)	1,437	89,588
	123,049	(28,481)	(6,417)	1,437	89,588

Movement in trade provisions during 2017 was as follows:

	Thousands of Euros						
	Balance at 31/12/2016	Business Combination	Net charge	Cancellations	Reclassification	Translation differences	Balance at 31/12/2017
Trade provisions	89,588	41,841	(4,812)	(2,886)	(2,600)	(14,136)	106,995
	89,588	41,841	(4,812)	(2,886)	(2,600)	(14,136)	106,995

Movement in trade provisions during 2018 is as follows:

	Thousands of Euros				
	Balance at 31/12/2017	Net charge	Cancellations	Translation differences	Balance at 31/12/2018
Trade provisions	106,995	(30,668)	(290)	4,018	80,055
	106,995	(30,668)	(290)	4,018	80,055

(20) Financial Liabilities

This note provides information on the contractual conditions of the Group's financial liabilities, which are measured at amortized cost. For further information on exposure to interest rate risk, currency risk and liquidity risk and the fair values of financial liabilities, please refer to note 30.

(20) Financial Liabilities (Continued)

Details at 31 December 2018 and 2017 are as follows:

	Thousands of Euros	
Financial liabilities	**31/12/2018**	**31/12/2017**
Non-current obligations (a)	1,000,000	853,667
Senior secured debt (b)	4,771,285	4,849,882
Other loans (b)	239,686	169,214
Finance lease liabilities (c)	9,537	5,415
Other non-current financial liabilities (e)	78,955	23,637
Total non-current financial liabilities	6,099,463	5,901,815
Current obligations (a)	102,978	95,538
Senior secured debt (b)	129,955	4,057
Other loans (b)	24,839	29,527
Finance lease liabilities (c)	3,348	3,945
Other current financial liabilities (e)	16,262	22,003
Total current financial liabilities	277,382	155,070

In September 2018, Grifols obtained a new non-current loan from the European Investment Bank totaling Euros 85,000 thousand that will be used by Grifols to support its investments in R&D, mainly focused on the search for new therapeutic indications for plasma-derived protein therapies. The financial terms include a fixed interest rate, a maturity of 10 years with a grace period of 2 years. At 31 December 2018, the carrying amount of the loans obtained from the European Investment Bank amounts to Euros 244,375 thousand (Euros 170,000 thousand at 31 December, 2017).

On 5 December 2017 the Group received a loan from the European Investment Bank totaling Euros 85 million, falling due in 10 years, at a fixed rate and with a grace period of 2 years. The loan will be used to support certain investments the Group's R&D which are mainly focused on searching for new applications for plasmatic proteins.

On 28 October 2015, the Group received its first loan from the same entity and with the same terms for a total amount of Euros 100 million.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total note issuance amounted to Euros 1,000 million.

On 6 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounts to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consisted of a US Dollars 6,000 million non-current loan from institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

Retrospectively as of 1 January 2018, Grifols has calculated the impact of the entry into force of the new IFRS 9 on the refinancing process of the Senior Unsecured Notes and the Senior debt, concluding that the refinancing of the notes caused a derecognition of the liability as they did not pass the new quantitative test, whereas the senior debt did not result in a derecognition of the liability.

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the modified cash flows, discounted at the original effective interest rate of the liability. Due to the retrospective effect of IFRS 9, any gains or losses from the

(20) Financial Liabilities (Continued)

modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 have been recognized in reserves, generating a positive net impact of Euros 24,636 thousand (see note 2 (c)).

(a) Senior Unsecured Notes

On 18 April 2017, Grifols, S.A., issued US Dollars 1,000 million of Senior Unsecured Notes (the "Notes") that will mature in 2025 and will bear annual interest at a rate of 3.20%. These notes replaced 97.1% of the Senior Unsecured Notes issued in 2014 by Grifols Worldwide Operations Limited, a wholly-owned subsidiary of Grifols S.A., amounting to US Dollars 1,000 million, with a maturity in 2022 and with interest rate of 5.25% that was owned by a financial institution. The remaining 2.9% of the existing notes was redeemed before the exchange by an amount of Euros 26,618 thousand. The corresponding deferred costs of the notes have been recognized in profit and loss in 2017. On 2 May 2017 the Notes were admitted to listing on the Irish Stock Exchange.

Due to the implementation of IFRS 9, the refinancing of unsecured corporate notes has resulted in the decrease of liabilities by not passing the new quantitative test (see note 2).

Details of movement in the Senior Unsecured Notes at 31 December 2017 are as follows:

	Thousands of Euros				
	Opening outstanding balance 01/01/17	Refinancing	Repayments	Translation differences	Closing outstanding balance 31/12/17
Senior Unsecured Notes (nominal amount)	948,677	108,597	(26,618)	(30,656)	1,000,000
Total	948,677	108,597	(26,618)	(30,656)	1,000,000

At 31 December 2018 and 2017 the current obligations caption includes the issue of bearer promissory notes to Group employees, as follows:

	31/12/2017						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/17	04/05/18	3,000	3.00%	92,109	(906)	(909)

	31/12/2018						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/18	04/05/19	3,000	4.00%	99,990	(1,041)	(1,304)

(20) Financial Liabilities (Continued)

(b) Loans and borrowings

Details of loans and borrowings at 31 December 2018 and 2017 are as follows:

					Thousands of Euros			
					31/12/2018		31/12/2017	
Credit	Currency	Interest rate	Date awarded	Maturity date	Amount extended	Carrying amount	Amount extended	Carrying amount
Senior debt—Tranche A	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	2,052,403	1,949,782	1,959,476	1,959,476
Senior debt—Tranche A	Euros	Euribor + 1.75%	31/01/2017	31/01/2023	607,000	576,650	607,000	607,000
Senior debt—Tranche B	US Dollars	Libor + 2.25%	31/01/2017	31/01/2025	2,620,087	2,548,035	2,501,459	2,457,684
Total senior debt					5,279,490	5,074,467	5,067,935	5,024,160
EIB Loan	Euros	2.40%	20/11/2015	20/11/2025	100,000	63,750	100,000	74,375
EIB Loan	Euros	2.02%	22/12/2017	22/12/2027	85,000	85,000	85,000	85,000
EIB Loan	Euros	2.15%	25/09/2018	25/09/2028	85,000	85,000	—	—
Total EIB Loan					270,000	233,750	185,000	159,375
Revolving Credit	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	262,009	—	250,146	—
Total Revolving Credit					262,009	—	250,146	—
Other non-current loans	Euros	Euribor – Euribor+2.30%	25/03/2010	30/09/2024	26,680	5,936	33,180	9,839
Loan transaction costs					—	(303,182)	—	(174,278)
Non-current loans and borrowings					**5,838,179**	**5,010,971**	**5,536,261**	**5,019,096**

(20) Financial Liabilities (Continued)

					Thousands of Euros			
					31/12/2018		31/12/2017	
Credit	Currency	Interest rate	Date awarded	Maturity date	Amount extended	Carrying amount	Amount extended	Carrying amount
Senior debt—Tranche A	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	(*)	102,621	(*)	—
Senior debt—Tranche A	Euros	Euribor + 1.75%	31/01/2017	31/01/2023	(*)	30,350	(*)	—
Senior debt—Tranche B	US Dollars	Libor + 2.25%	31/01/2017	31/01/2025	(*)	26,201	(*)	25,015
Total senior debt					—	159,172	—	25,015
EIB Loan	Euros	2.40%	20/11/2015	20/11/2025	(*)	10,625	(*)	10,625
Total EIB Loan					—	10,625	—	10,625
Other current loans		0,10%-4,62%			144,571	14,214	131,700	18,902
Loan transaction costs					—	(29,217)	—	(20,958)
Current loans and borrowings					**144,571**	**154,794**	**131,700**	**33,584**

(*) See amount granted under non-current debt

(20) Financial Liabilities (Continued)

Current loans and borrowings include accrued interest amounting to Euros 2,546 thousand at 31 December 2018 (Euros 1,713 thousand at 31 December 2017).

On 6 February 2017 the Group refinanced its Senior Secured Debt with the existing lenders and obtained the additional debt for the acquisition of Hologic by an amount of US Dollars 1,816 million. The new senior debt consisted of a Term Loan A ("TLA"), which amounted US Dollars 2,350 million and Euros 607 million with a 1.75% margin over Libor and Euribor respectively and maturity in 2023 and quasi-bullet amortization structure, and a Term Loan B ("TLB") which amounted US Dollars 3,000 million with a 2.25% margin over Libor and maturity in 2025. The borrowers of the total debt are Grifols Worldwide Operations Limited and Grifols, S.A. for the Term Loan A and Grifols Worldwide Operations USA, Inc. for the Term Loan B.

The present value discounted from cash flows under the new agreement, including any fees paid and discounted using the original effective interest rate differed by less than 10% of the present value discounted from cash flows remaining in the original debt, whereby it is considered that the debt instrument has not been substantially modified.

The costs of refinancing the senior debt amounted to Euros 84.8 million. Based on an analysis of the quantitative and qualitative factors, the Group concluded that the renegotiation of the terms of the senior debt did not imply a derecognition of the liability. The difference between the amortized cost of the debt applying the new IFRS 9 is Euros 332,399 thousand less than its nominal amount.

The terms and conditions of the senior secured debt are as follows:

- **Tranche A:** six year loan divided into two tranches: US Tranche A and Tranche A in Euros.
  - **US Tranche A** :
    - Original principal amount of US Dollars 2,350 million.
    - Applicable margin of 175 basis points (bp) linked to US Libor.
    - Quasi-bullet amortization structure.
    - Maturity in 2023.
  - **Tranche A in Euros :**
    - Original principal amount of Euros 607 million.
    - Applicable margin of 175 basis ponts (bp) linked to Euribor.
    - Quasi-bullet amortization structure.
    - Maturity in 2023.

Details of Tranche A by maturity at 31 December 2018 are as follows:

	US Tranche A		Tranche A in Euros
Maturity	**Principal in thousands of US Dollars**	**Principal in thousands of Euros**	**Principal in thousands of Euros**
2019	117,500	102,621	30,350
2020	235,000	205,240	60,700
2021	235,000	205,240	60,700
2022	1,321,875	1,154,476	341,437
2023	440,625	384,826	113,813
Total	2,350,000	2,052,403	607,000

(20) Financial Liabilities (Continued)

- **Tranche B:** Senior Debt Loan repayable in eight years.
  - **US Tranche B :**
    - Original principal amount of US Dollars 3,000 million.
    - Applicable margin of 225 basis points (bp) linked to US Libor.
    - Quasi-bullet amortization structure.
    - Maturity in 2025.

Details of Tranche B by maturity at 31 December 2018 are as follows:

	US Tranche B		
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros
2019	US Dollars	30,000	26,201
2020	US Dollars	30,000	26,201
2021	US Dollars	30,000	26,201
2022	US Dollars	30,000	26,201
2023	US Dollars	30,000	26,201
2024	US Dollars	30,000	26,201
2025	US Dollars	2,767,500	2,417,030
Total	US Dollars	2,947,500	2,574,236

- **US Dollars 300 million committed credit revolving facility:** Amount maturing on 2023 and applicable margin of 175 basis points (bp) pegged to US Libor. At 31 December 2018 and 2017 no amount has been drawn down on this facility.

The issue of senior unsecured notes and senior secured debt is subject to compliance with a leverage ratio covenant. At 31 December 2018 the Group complies with this covenant.

Both the Senior Term Loans and the Revolving Loans are guaranteed by Grifols, S.A. and certain significant subsidiaries of Grifols, S.A. that together with Grifols, S.A. represent, in the aggregate, at least 80% of the consolidated assets and consolidated EBITDA of Grifols, S.A. and its subsidiaries.

The Notes have been issued by Grifols S.A. and are guaranteed on a senior unsecured basis by subsidiaries of Grifols, S.A. that are guarantors and co-borrower under the New Credit Facilities. The guarantors are Grifols Worldwide Operations Limited, Biomat USA, Inc., Grifols Biologicals Inc., Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics, Inc., Instituto Grifols, S.A., Grifols Worldwide Operations USA, Inc and Grifols USA, Llc.

(20) Financial Liabilities (Continued)

(c) Finance lease liabilities

Details of minimum payments and the present value of finance lease liabilities, by maturity date, are as follows:

	Thousands of Euros					
	31/12/2018			31/12/2017		
	Minimum payments	Interest	Present Value	Minimum payments	Interest	Present Value
Maturity at:						
Less than one year	3,576	228	3,348	4,305	360	3,945
Two years	3,339	123	3,216	2,636	179	2,457
Three years	2,606	82	2,524	1,461	88	1,373
Four years	1,971	53	1,918	814	60	754
Five years	1,578	32	1,546	369	42	327
More than five years	351	18	333	550	46	504
Total	13,421	536	12,885	10,135	775	9,360

(d) Credit rating

In December 2018 and December 2017 Moody's Investors Service has confirmed the 'Ba3' corporate family rating, 'Ba2' rating to the senior secured bank debt and 'B2' rating to the unsecured notes that were used to refinance the existing debt structure. The outlook is confirmed as stable.

In December 2018 and December 2017 Standard & Poor's has confirmed its 'BB' rating on Grifols and has assigned 'BB+' and 'B+' issue ratings to Grifols' senior secured debt and senior unsecured notes that were used to refinance the existing debt structure. The outlook for the rating is stable.

(e) Other financial liabilities

At 31 December 2018 "other financial liabilities" include interest-free loans extended by governmental institutions amounting to Euros 16,559 thousand (Euros 20,306 thousand at 31 December 2017). The portion of the loans considered a grant and still to be taken to profit and loss amounts to Euros 696 thousand (Euros 812 thousand at 31 December 2017) (see note 18).

At 31 December 2017, "other current financial liabilities" included an amount of Euros 5,000 thousand related to the remaining call option extended by the Group and the shareholders of Progenika with maturity in 2018. This option was executed in June 2018.

At 31 December 2018 and 2017 "other current financial liabilities" also include approximately Euros 6,704 thousand and Euros 3,056 thousand, respectively, which have been collected directly from Spanish Social Security affiliated bodies and transferred to financial institutions (see note 13).

Details of the maturity of other financial liabilities are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Maturity at:		
Up to one year	16,262	22,003
Two years	21,460	10,818
Three years	49,602	3,787
Four years	2,916	2,794
Five years	1,799	2,247
Over five years	3,178	3,991
	95,217	45,640

(20) Financial Liabilities (Continued)

(f) Changes in liabilities derived from financing activities

	Thousand of Euros				
	Obligations	Senior Secured debt & Other loans	Finance lease liabilities	Other financial liabilities	Total
Book value at January 1, 2017	926,941	3,948,154	9,945	57,096	4,942,136
New financing	1,092,109	5,666,300	—	8,661	6,767,070
Refunds	(1,003,104)	(3,936,799)	(780)	(21,838)	(4,962,521)
Bear of interests	61,944	198,588	505	1,020	262,057
Other movements	(57,484)	(84,917)	—	—	(142,401)
Collection / Payment of interests	(44,432)	(162,647)	—	—	(207,079)
Business combination	—	—	—	2,163	2,163
Foreign exchange differences	(26,769)	(575,999)	(310)	(1,462)	(604,540)
Balance at December 31, 2017	949,205	5,052,680	9,360	45,640	6,056,885
New financing	99,990	85,000	—	6,789	191,779
Refunds	(92,244)	(45,225)	(1,001)	(20,041)	(158,511)
Bear of interests	31,694	253,673	409	865	286,641
Other movements (note 2)	146,333	(141,998)	—	—	4,335
Collection / Payment of interests	(32,000)	(193,146)	—	—	(225,146)
Business combination	—	—	4,007	57,816	61,823
Foreign exchange differences	—	154,781	110	4,148	159,039
Balance at December 31, 2018	1,102,978	5,165,765	12,885	95,217	6,376,845

(21) Trade and Other Payables

Details are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Suppliers	561,883	423,096
VAT payable	8,954	8,827
Taxation authorities, withholdings payable	26,299	24,084
Social security payable	12,787	11,741
Other public entities	111,776	97,068
Other payables	159,816	141,720
Current income tax liabilities	1,917	6,709
	723,616	571,525

Suppliers

Details of balances with related parties are shown in note 31.

The Group's exposure to currency risk and liquidity risk associated with trade and other payables is described in note 30.

(21) Trade and Other Payables (Continued)

In accordance with the second final provision of Law 31/2014 that amends Law 15/2010 of 5 July 2010, for fiscal years 2018 and 2017 information concerning the average payment period to suppliers is included.

	Days	
	31/12/2018	31/12/2017
Average payment period to suppliers	72.6	72.9
Paid invoices ratio	74.2	74.0
Outstanding invoices ratio	63.4	62.2

	Thousands of Euros	
	31/12/2018	31/12/2017
Total invoices paid	454,995	460,699
Total outstanding invoices	82,740	49,339

(22) Other Current Liabilities

Details at 31 December are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Salaries payable	153,160	129,519
Other payables	504	649
Deferred income	8,912	4,284
Advances received	6,613	9,945
Other current liabilities	169,189	144,397

(23) Net Revenues

Net revenues are mainly generated from the sale of goods.

The distribution of net consolidated revenues for 2018, 2017 and 2016 by segment is as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Bioscience	3,516,704	3,429,785	3,195,424
Diagnostic	702,265	732,369	691,701
Hospital	119,454	105,649	102,251
Bio supplies	167,004	66,791	57,239
Others	22,451	18,263	34,601
Intersegments	(41,154)	(34,784)	(31,386)
	4,486,724	4,318,073	4,049,830

As a result of the creation of Bio Supplies segment and the Intersegments in 2017, the Group has reviewed the allocation of balances and transactions by segments. The comparative figures for 2016 have been restated accordingly.

(23) Net Revenues (Continued)

The geographical distribution of net consolidated revenues is as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
USA and Canada	2,974,429	2,896,505	2,707,579
Spain	264,913	242,894	225,273
European Union	535,361	444,089	426,223
Rest of the world	712,021	734,585	690,755
Consolidated	4,486,724	4,318,073	4,049,830

Details of discounts and other reductions in gross income are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Gross sales	5,588,257	5,322,618	4,882,615
Chargebacks	(923,023)	(826,775)	(652,564)
Cash discounts	(62,518)	(57,512)	(51,953)
Volume rebates	(46,922)	(43,274)	(51,242)
Medicare and Medicaid	(40,343)	(41,722)	(47,820)
Other discounts	(28,727)	(35,262)	(29,206)
Net sales	4,486,724	4,318,073	4,049,830

Movement in discounts and other reductions in gross income during 2016 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2015	126,178	5,902	29,680	12,468	5,367	179,595
Current estimate related to sales made in current and prior year	652,564	51,953	51,242	47,820	29,206	832,785[1]
(Actual returns or credits in current period related to sales made in current period)	(693,458)	(51,733)	(27,409)	(24,988)	(27,243)	(824,831)[2]
(Actual returns or credits in current period related to sales made in prior periods)	—	(248)	(27,732)	(14,401)	(2,986)	(45,367)[3]
Translation differences	1,965	758	726	858	98	4,405
Balance at 31 December 2016	**87,249**	**6,632**	**26,507**	**21,757**	**4,442**	**146,587**

(23) Net Revenues (Continued)

Movement in discounts and other reductions to gross income during 2017 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2016	87,249	6,632	26,507	21,757	4,442	146,587
Current estimate related to sales made in current and prior year	826,775	57,512	43,274	41,722	35,262	1,004,545(1)
(Actual returns or credits in current period related to sales made in current period)	(795,449)	(52,270)	(28,976)	(28,198)	(26,072)	(930,965)(2)
(Actual returns or credits in current period related to sales made in prior periods)	31	(6,024)	(20,210)	(16,659)	(2,864)	(45,726)(3)
Translation differences	(12,716)	(736)	(2,604)	(2,418)	(625)	(19,099)
Balance at 31 December 2017	**105,890**	**5,114**	**17,991**	**16,204**	**10,143**	**155,342**

Movement in discounts and other reductions to gross income during 2018 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2017	105,890	5,114	17,991	16,204	10,143	155,342
Current estimate related to sales made in current and prior year	923,023	62,518	46,922	40,343	28,727	1,101,533(1)
(Actual returns or credits in current period related to sales made in current period)	(957,695)	(56,568)	(24,648)	(21,324)	(26,493)	(1,086,728)(2)
(Actual returns or credits in current period related to sales made in prior periods)	—	(4,909)	(16,384)	(13,232)	(3,781)	(38,306)(3)
Translation differences	3,957	286	916	950	241	6,350
Balance at 31 December 2018	**75,175**	**6,441**	**24,797**	**22,941**	**8,837**	**138,191**

(l) Net impact in income statement: estimate for the current year plus prior years' adjustments. Adjustments made during the year corresponding to prior years' estimates have not been significant.

(2) Amounts credited and posted against provisions for current period

(3) Amounts credited and posted against provisions for prior period

(24) Personnel Expenses

Details of personnel expenses by function are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Cost of sales	810,512	731,192	635,577
Research and development	93,817	90,495	77,988
Selling, general & administration expenses	345,224	323,880	314,348
	1,249,553	1,145,567	1,027,913

(24) Personnel Expenses (Continued)

Details by nature are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Wages and salaries	1,000,682	917,810	822,384
Contributions to pension plans (see note 29)	21,363	20,347	18,486
Other social charges	29,055	27,679	25,074
Social Security	198,453	179,731	161,969
	1,249,553	1,145,567	1,027,913

The average headcount during 2018 and 2017, by department, was approximately as follows:

	Average headcount	
	31/12/2018	31/12/2017
Manufacturing	14,576	12,194
R&D—technical area	945	905
Administration and others	1,316	1,070
General management	212	201
Marketing	184	180
Sales and Distribution	1,223	1,211
	18,456	15,761

The headcount of the Group employees and the Company's directors at 31 December 2017, by gender, was as follows:

	31/12/2017		
	Male	Female	Total number of employees
Directors	9	4	13
Manufacturing	5,933	8,644	14,577
Research&development—technical area	373	590	963
Administration and others	631	481	1,112
General management	119	111	230
Marketing	78	109	187
Sales and Distribution	647	580	1,227
	7,790	10,519	18,309

(24) Personnel Expenses (Continued)

The headcount of the Group employees and the Company's directors at 31 December 2018, by gender, is as follows:

	31/12/2018		
	Male	Female	Total number of employees
Directors	9	4	13
Manufacturing	6,591	10,556	17,147
Research&development—technical area	368	616	984
Administration and others	842	554	1,396
General management	129	125	254
Marketing	76	108	184
Sales and Distribution	658	607	1,265
	8,673	12,570	21,243

(25) Expenses by Nature

(a) Amortization and depreciation

Expenses for the amortization and depreciation of intangible assets and property, plant and equipment, incurred during 2018, 2017 and 2016 classified by functions are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Cost of sales	146,530	135,186	126,998
Research and development	19,836	14,721	13,050
Selling, general & administration expenses	62,243	65,583	61,821
	228,609	215,490	201,869

(b) Other operating income and expenses

Other operating income and expenses incurred during 2018, 2017 and 2016 by function are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Cost of sales	432,803	416,020	454,097
Research and development	152,670	129,579	113,078
Selling, general & administration expenses	410,753	460,959	393,523
	996,226	1,006,558	960,698

(25) Expenses by Nature (Continued)

Details by nature are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Changes in trade provisions	(23,125)	3,648	(22,069)
Professional services	211,305	211,579	190,003
Commissions	21,941	18,473	20,147
Supplies and auxiliary materials	149,831	131,932	119,014
Operating leases (note 28)	84,299	80,136	74,945
Freight	112,340	105,292	96,680
Repair and maintenance expenses	107,806	103,518	89,797
Advertising	44,659	49,893	51,233
Insurance	22,632	21,529	20,008
Royalties	10,726	11,241	9,217
Travel expenses	51,428	58,171	53,239
External services	53,391	82,699	43,231
R&D Expenses	100,889	89,977	78,379
Other	48,104	38,470	136,874
Other operating income&expenses	996,226	1,006,558	960,698

(26) Finance Result

Details are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Finance income	13,995	9,678	9,934
Finance cost from Senior Unsecured Notes	(35,471)	(65,189)	(73,491)
Finance cost from senior debt	(247,646)	(193,183)	(168,332)
Finance cost from sale of receivables (note 13)	(6,053)	(3,973)	(4,885)
Capitalized interest	8,955	8,839	13,019
Other finance costs	(13,058)	(9,838)	(11,140)
Finance costs	(293,273)	(263,344)	(244,829)
Change in fair value of financial derivatives (note 30)	—	(3,752)	(7,610)
Impairment and gains / (losses) on disposal of financial instruments	30,280	(18,844)	—
Exchange differences	(8,246)	(11,472)	8,916
Finance result	(257,244)	(287,734)	(233,589)

On 29 January 2018 (prior to the date on which the 2017 consolidated annual accounts were authorized to issue) Aradigm communicated that it had not obtained the approval of the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration for Linahiq™. As a result, the financial assets related to the convertible note of Aradigm have been totally impaired totaling Euros 14,477 thousand at 31 December 2017. This amount was recognized in "Impairment and gains/(losses) on disposal of financial instruments" in the consolidated statement of profit and loss.

During 2018 the Group has capitalized interest at a rate of between 4.61% and 5.18% based on the financing received (between 4.26% and 4.87% during 2017) (see note 4 (f)).

(27) Taxation

Grifols, S.A. is authorized to file consolidated tax returns in Spain with Diagnostic Grifols, S.A., Grifols Movaco, S.A., Laboratorios Grifols, S.A., Instituto Grifols, S.A., Grifols Worldwide Operations Spain, S.A. (formerly Logister, S.A), Biomat, S.A., Grifols Viajes, S.A., Grifols International, S.A., Grifols Engineering, S.A., Gri-Cel, S.A., Gripdan Invest, S.L. and VCN Biosciences, S.L. Grifols, S.A., in its capacity as Parent, is responsible for the filing and settlement of the consolidated tax return. Under prevailing tax law, Spanish companies pay 25% tax, which may be reduced by certain deductions.

The North American company Grifols Shared Services North America, Inc. is also authorized to file consolidated tax returns in the USA with Grifols Biologicals Inc., Grifols USA, LLC., Biomat USA, Inc., Grifols Therapeutics Inc. and Talecris Plasma Resources, Inc. The profits of the companies domiciled in the USA, determined in accordance with prevailing tax legislation, are subject to tax of approximately 22.4% of taxable income, which may be reduced by certain deductions.

(a) Reconciliation of accounting and taxable income

Details of the income tax expense and income tax related to profit for the year are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Profit before income tax from continuing operations	725,842	695,722	712,752
Tax at 25%	181,461	173,931	178,188
Permanent differences	(2,000)	17,163	8,019
Effect of different tax rates	(29,543)	40,981	14,509
Tax credits (deductions)	(18,226)	(16,092)	(20,163)
Impact related to the US tax legistation modifications	—	(171,169)	—
Prior year income tax expense	381	(8,614)	928
Other income tax expenses/(income)	(637)	(1,792)	(13,272)
Total income tax expense	131,436	34,408	168,209
Deferred tax	(21,189)	(149,444)	(40,161)
Current tax	152,625	183,851	208,370
Total income tax expense	131,436	34,407	168,209

The effect of the different tax rates is basically due to a change of country mix in profits

On 22 December 2017, a tax reform was approved in the United States that took effect on 1 January 2018.

The Group carried out an exercise to identify changes in the tax reform affecting its subsidiaries in the USA and an assessment of the impact that these changes will have on the manner in which the deferred taxes will revert as of 31 December 2017. In the analysis performed, the main impact comes from the change in tax rates to be applied to deferred taxes as of 31 December 2017, which have fallen from a rate of 35% to 21% for fiscal years beginning on or after 1 January 2018. The impact recorded in the "income tax expense" caption amounted to Euros 171 million in 2017.

(27) Taxation (Continued)

(b) Deferred tax assets and liabilities

Details of deferred tax assets and liabilities are as follows:

	Thousands of Euros		
	Tax effect		
	31/12/2018	31/12/2017	31/12/2016
Assets			
Provisions	7,936	4,564	3,696
Inventories	41,029	35,619	39,297
Tax credits (deductions)	57,357	49,467	37,685
Tax loss carryforwards	32,769	6,179	10,717
Other	8,611	7,513	3,393
Subtotal, assets	147,702	103,342	94,788
Goodwill	(24,691)	(22,346)	(19,136)
Fixed assets, amortisation and depreciation	(3,922)	(7,780)	(7,062)
Intangible assets	(6,550)	(7,059)	(1,371)
Subtotal, net liabilities	(35,163)	(37,185)	(27,569)
Deferred assets, net	112,539	66,157	67,219
Liabilities			
Goodwill	(150,644)	(105,963)	(131,039)
Intangible assets	(220,752)	(201,921)	(392,388)
Fixed assets	(99,819)	(95,029)	(158,060)
Debt cancellation costs	(42,319)	(70,503)	(64,762)
Inventories	—	—	(1,175)
Subtotal, liabilities	(513,534)	(473,416)	(747,424)
Tax loss carryforwards	20,833	15,384	40,358
Inventories	5,644	5,063	
Provisions	53,290	47,404	61,252
Other	29,369	16,653	45,168
Subtotal, net assets	109,135	84,504	146,778
Net deferred Liabilities	(404,398)	(388,912)	(600,646)

Movement in deferred tax assets and liabilities is as follows:

	Thousands of Euros		
Deferred tax assets and liabilities	**31/12/2018**	**31/12/2017**	**31/12/2016**
Balance at 1 January	(322,755)	(533,427)	(564,771)
Movements during the year	21,189	149,444	40,161
Movements in equity during the year	—	—	—
Business combination (note 3)	21,328	16,736	—
Translation differences	(11,621)	44,492	(8,817)
Balance at 31 December	(291,859)	(322,755)	(533,427)

The Spanish companies have opted to apply accelerated depreciation to certain additions to property, plant and equipment, which has resulted in the corresponding deferred tax liability.

(27) Taxation (Continued)

The remaining assets and liabilities recognized in 2018, 2017 and 2016 were recognized in the statement of profit and loss.

Estimated net deferred tax assets to be reversed in a period of less than 12 months amount to Euros 27,097 thousand at 31 December 2018 (Euros 51,930 thousand at 31 December 2017).

The majority of the tax deductions pending application from Spanish companies related mainly to research and development, mature in 18 years.

Tax credits derived from the US companies are available for 20 years from their date of origin whilst tax credits from Spanish companies registered in the Basque Country are available for 15 years and other remaining Spanish companies have no maturity date.

The Group has not recognized as deferred tax assets the tax effect of the unused tax loss carryforwards of Group companies, which amount to Euros 55,282 thousand (Euros 51,169 thousand at 31 December 2017).

The commitments from Spanish companies from the reversal of deferred tax related to provisions of investments in subsidiaries are not significant.

(c) Years open to inspection

Under prevailing legislation, taxes cannot be considered to be definitively settled until the returns filed have been inspected by the taxation authorities, or the prescription period has elapsed.

The main tax audits currently open in the Group are as follows:

- Grifols Shared Services North America, Inc. and subsidiaries: notification of an inspection of State Income Tax in North Carolina and New York states (fiscal years 2012 to 2015). During 2017, this inspection was closed and the Group without any significant adjustment.
- Grifols Shared Services North America, Inc. and subsidiaries: In 2018 has been notified of an inspection related to the State Income Tax of the fiscal year 2016.

Group management does not expect any significant liability to derive from these inspections.

(28) Operating Leases

(a) Operating leases (as lessee)

At 31 December 2018, 2017 and 2016 the Group leases buildings and warehouses from third parties under operating leases.

Operating lease instalments of Euros 84,299 thousand were recognized as an expense in 2018 (Euros 80,136 thousand in 2017 and Euros 74,945 thousand in 2016) and fully comprise minimum lease payments.

Future minimum payments on non-cancellable operating leases at 31 December 2018, 2017 and 2016 are as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Maturity at:			
Up to 1 year	63,959	46,541	56,869
Between 1 and 5 years	200,156	156,897	181,076
More than 5 years	136,464	58,905	112,986
Total future minimum payments	400,579	262,343	350,931

(28) Operating Leases (Continued)

(b) Operating leases (as lessor)

At 31 December 2018, 2017 and 2016 the Group has no lease contracts as lessor.

(29) Other Commitments with Third Parties and Other Contingent Liabilities

(a) Guarantees

The Group has no significant guarantees extended to third parties.

(b) Guarantees committed with third parties

The Group has no significant guarantees extended to third parties, except for those described in note 20.

(c) Obligations with personnel

The Group's annual contribution to defined contribution pension plans of Spanish Group companies for 2018 has amounted to Euros 777 thousand (Euros 725 thousand for 2017).

In successive years this contribution will be defined through labor negotiations.

In the event that control is taken of the Company, the Group has agreements with 69 employees/directors whereby they can unilaterally rescind their employment contracts with the Company and are entitled to termination benefits ranging from 2 to 5 years' salary.

The Group has contracts with six executives entitling them to termination benefits ranging from one to four years of their salary in different circumstances.

Restricted Share Unit Retention Plan

For the annual bonus, the Group established a Restricted Share Unit Retention Plan (RSU Plan), for eligible employees. Under this plan, employees can choose to receive up to 50% of their yearly bonus in non-voting Class B ordinary shares (Grifols Class B Shares) or Grifols American Depositary Shares (Grifols ADS), and the Group will match this with an additional 50% of the employee's choice of RSUs.

Grifols Class B Shares and Grifols ADS are valued at grant date.

These RSU's will have a vesting period of 2 years and 1 day and, subsequently, the RSU's will be exchanged for Grifols Class B Shares or Grifols ADS (American Depositary Share representing 1 Class B Share).

If an eligible employee leaves the Company or is terminated before the vesting period, he/she will not be entitled to the additional RSU's.

At 31 December 2018, the Group has settled the RSU plan of 2015 for an amount of Euros 7,914 thousand.

This commitment is treated as equity instrument and the amount totals Euros 12,652 thousand at 31 December 2018 (Euros 13,871 thousand at 31 December 2017).

Savings plan and profit-sharing plan

The Group has a defined contribution plan (savings plan), which qualifies as a deferred salary arrangement under Section 401 (k) of the Internal Revenue Code (IRC). Once eligible, employees may elect to contribute a portion of their salaries to the savings plan, subject to certain limitations. The Group matches 100% of the first 3% of employee contributions and 50% of the next 2%. Group and employee contributions are fully vested when contributed. The total cost of matching contributions to the savings plan was US Dollars 20.7 million for 2018 (US Dollars 18.9 million in 2017).

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

Other plans

The Group has a defined benefit pension plan for certain Talecris Biotherapeutics, GmbH employees in Germany as required by statutory law. The pension cost relating to this plan is not material for the periods presented.

(d) Purchase commitments

Details of the Group's commitments at 31 December 2018 are as follows:

	Thousands of Euros
2019	179,766
2020	166,163
2021	149,318
2022	4,143
2023	1,067
More than 5 years	893

(e) Judicial procedures and arbitration

Details of legal proceedings in which the Company or Group companies are involved are as follows:

- bioMérieux, S.A., et ano. v. Hologic, Inc. et al., Case No. 1:17-cv-102 (M.D.N.C); Case No. 18-21-LPS-CJB (D. Del.): On 3 February 2017, bioMérieux, S.A and bioMérieux, Inc. filed suit against Hologic, Inc. ("Hologic"), Grifols, S.A. ("GSA"), and GDS in the U.S. District Court for the Middle District of North Carolina, alleging infringement of U.S. Patent Nos. 8,697,352 and 9,074,262 by virtue of defendants' activities with respect to the Procleix HIV-1/HCV Assay®, Procleix Ultrio Assay®, and Procleix Ultrio Plus® products. Hologic and GDS filed a motion to dismiss for failure to state a claim on 3 April 2017. As a result of a claim of improper venue, the case was transferred to the U.S. District Court for the District of Delaware in early 2018. Hologic and GDS pursued defenses of failure to state a claim, non-infringement, invalidity, and that the infringement claims are contractually barred under a Non-Assertion Agreement. On 31 May 2018, Hologic, GDS and GSA filed a motion to sever and stay their contractual defense under the Non-Assertion Agreement pending resolution of the liability issues. Hologic and GDS filed a Motion to Dismiss for failure to state a claim and GSA filed a Motion to Dismiss for lack of personal jurisdiction. The Court denied Hologic's and GDS' Motions to Dismiss on 25 September 2018, and denied GSA's Motion to Dismiss on 26 September 2018. On September 28, 2018, bioMérieux filed an amended complaint. Requests for Institution of Inter Parties Review were filed by Hologic with the Patent and Trademark Appeals Board on 12 February 2018, and were also denied. Requests for rehearing of the Patent and Trademark Appeals Decisions were filed on 10 September 2018 and 24 September 2018. Discovery has been initiated and is scheduled to be completed by 15 February 2019. Based on the amounts as of today's date, the Group does not believe that the aforementioned litigation could result in a material impact on these annual accounts.
- Enzo Life Sciences, Inc. v. Hologic, Inc. et al., Case No. 1:16-cv-00894-LPS (D. Del.): On 4 October 2016, Enzo Life Sciences, Inc. ("Enzo") filed suit against Hologic in the U.S. District Court for the District of Delaware, alleging infringement of U.S. Patent No. 6,221,581 (the "'581 Patent") by virtue of Hologic's activities with respect to Progensa®, Procleix®, and Aptima®products. On 9 November 2017, the Court granted Enzo's motion to amend its complaint to add GSA and GDS as defendants with respect to the Procleix® products at issue. Hologic and GDS answered the complaint, alleging non-infringement and invalidity among their defenses. GSA filed a Motion to Dismiss for lack of personal jurisdiction, which was denied on 26 September 2018. A Request for Institution of Inter Parties Review was also filed by Hologic and denied by the Patent and Trademark Appeals Board on

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

18 April 2018. Trial was scheduled for September 2019. Fact discovery was nearly complete and depositions of key witnesses were scheduled. However, these activities were taken off calendar at the request of Enzo after issuance of the 15 October 2018 Court Order and Opinion on Claim Construction narrowing the scope of the '581 Patent claims such that the products at issue would not infringe the '581 Patent. On 5 November 2018, the Court entered final judgement in favor of Hologic, GSA and GDS following the filing of a Joint Stipulation of Noninfringement. Enzo intends to appeal the Court's claim construction ruling. Based on the amounts as of today's date, the Group does not believe that the aforementioned litigation could result in a material impact on these annual accounts.

- Concerning the acquisition in 2014 of the transfusional Diagnostic unit and after an internal investigation by the Company, no abnormal commercial or contractual practices have been found.

(30) Financial Instruments (Continued)

Classification

Disclosure of financial instruments by nature, category and fair value is as follows:

	Thousand of Euros								
	31/12/2017								
	Carrying amount					Fair Value			
	Loans and receivables	Financial instruments held for trading	Available for sale financial assets	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	—	38,708	—	38,708	38,708	—	—	38,708
Financial derivatives	—	8,338	—	—	8,338	—	—	8,338	8,338
Financial assets measured at fair value	**—**	**8,338**	**38,708**	**—**	**47,046**				
Non-current financial assets	22,843	—	—	—	22,843				
Other current financial assets	10,738	—	—	—	10,738				
Trade and other receivables	304,864	—	—	—	304,864				
Cash and cash equivalents	886,521	—	—	—	886,521				
Financial assets not measured at fair value	**1,224,966**	**—**	**—**	**—**	**1,224,966**				
Senior Unsecured Notes	—	—	—	(858,911)	(858,911)	(1,018,130)	—	—	(1,018,130)
Promissory Notes	—	—	—	(90,294)	(90,294)				
Senior secured debt	—	—	—	(4,853,939)	(4,853,939)	—	(5,063,769)	—	(5,063,769)
Other bank loans	—	—	—	(198,741)	(198,741)				
Finance lease payables	—	—	—	(9,360)	(9,360)				
Other financial liabilities	—	—	—	(45,640)	(45,640)				
Trade and other payables	—	—	—	(423,096)	(423,096)				
Other current liabilities	—	—	—	(14,879)	(14,879)				
Financial liabilities not measured at fair value	**—**	**—**	**—**	**(6,494,860)**	**(6,494,860)**				
	1,224,966	**8,338**	**38,708**	**(6,494,860)**	**(5,222,848)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

	Thousand of Euros								
	31/12/2018								
	Carrying amount					Fair Value			
	Financial assets at amortised costs	Financial assets at FVTPL	Financial liabilities at amortised costs	Other financial liabilities	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	7	—	—	7	7	—	—	7
Current Financial derivatives	—	19,934	—	—	19,934	—	—	19,934	19,934
Financial assets measured at fair value	**—**	**19,941**	**—**	**—**	**19,941**				
Non-current financial assets	107,594	—	—	—	107,594				
Other current financial assets	34,031	—	—	—	34,031				
Trade and other receivables	361,585	—	—	—	361,585				
Cash and cash equivalents	1,033,792	—	—	—	1,033,792				
Financial assets not measured at fair value	**1,537,002**	**—**	**—**	**—**	**1,537,002**				
Senior Unsecured Notes	—	—	(1,005,333)	—	(1,005,333)	(985,480)	—	—	(985,480)
Promissory Notes	—	—	(97,645)	—	(97,645)				
Senior secured debt	—	—	(4,901,240)	—	(4,901,240)	—	(5,055,323)	—	(5,055,323)
Other bank loans	—	—	(264,525)	—	(264,525)				
Finance lease payables	—	—	(12,885)	—	(12,885)				
Other financial liabilities	—	—	(95,217)	—	(95,217)				
Debts with associates	—	—	(7,079)	—	(7,079)				
Other non-current debts	—	—	—	(1,301)	(1,301)				
Trade and other payables	—	—	—	(721,699)	(721,699)				
Other current liabilities	—	—	—	(169,189)	(169,189)				
Financial liabilities not measured at fair value	**—**	**—**	**(6,383,924)**	**(892,189)**	**(7,276,113)**				
	1,537,002	**19,941**	**(6,383,924)**	**(892,189)**	**(5,719,170)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

Financial derivatives

At 31 December 2018 and 2017 the Group has recognized the following derivatives:

Financial derivatives	Currency	Notional amount at 31/12/2018	Notional amount at 31/12/2017	Thousands of Euros		Maturity
				Value at 31/12/18	Value at 31/12/17	
Call Option (Interstate Blood Bank, Inc., Bio-Blood Components, Inc and Plasma Biological Services, LLC)	US Dollar	N/A	N/A	8,733	8,338	30/04/2019
Call Option (ADMA Centers)	US Dollar	N/A	N/A	11,201	—	01/01/2019
Total Assets				19,934	8,338	

On 11 May 2016 the Group paid an aggregate amount equal to US Dollars 10,000 thousand (Euros 8,960 thousand at the exchange rate at the date of acquisition) in respect of the call option for the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. shares that are not owned by the Group. The call option can be exercised by the Group by delivering written notice of its intention at any time on or after 1 February 2019 and on or before 30 April 2019 (see note 11).

On 6 June 2017, Biotest Pharmaceuticals Corporation agreed to purchase from ADMA Biologics all of its rights, titles and interests in two donation centers located in Georgia, USA. On 1 August 2018, Grifols acquired Biotest and its net assets (including the purchase option). The execution of the purchase option was carried out on 1 January 2019.

Financial derivatives are valued based on generally accepted valuation techniques (level 3 in the fair value hierarchy), using to the greatest extent data from the market and to a lesser extent specific data of the Group.

Derivative financial instruments that do not meet the hedge accounting requirements are classified and measured as financial assets or financial liabilities at fair value through profit and loss.

Credit risk

(a) Exposure to credit risk

The carrying amount of financial assets represents the maximum exposure to credit risk. At 31 December 2018 and 2017 the maximum level of exposure to credit risk is as follows:

Carrying amount	Note	Thousands of Euros	
		31/12/2018	31/12/2017
Non-current financial assets	11	107,601	69,889
Other current financial assets	11	53,965	10,738
Trade receivables	13	269,167	286,198
Other receivables	13	45,327	18,666
Cash and cash equivalents	14	1,033,792	886,521
		1,509,852	1,272,012

(30) Financial Instruments (Continued)

The maximum level of exposure to risk associated with receivables at 31 December 2018 and 2017, by geographical area, is as follows.

	Thousands of Euros	
Carrying amount	**31/12/2018**	**31/12/2017**
Spain	46,025	63,505
EU countries	48,354	53,403
United States of America	79,829	65,068
Other European countries	14,289	5,761
Other regions	125,997	117,127
	314,494	304,864

(b) Impairment losses

A breakdown of the trade receivables net of the bad debt provision by ageing as of 31 December 2017 is as follows:

	Thousands of Euros			
	ECL Rate	**Total gross carrying amount**	**Provision**	**Total net trade receivable third party**
Not matured	0.19%	224,476	(35)	224,441
Past due 0-30 days	0.19%	41,145	(7,476)	33,669
Past due 31-60 days	0.62%	12,904	(3)	12,901
Past due 61-90 days	2.03%	715	(8)	707
Past due 91-180 days	3.01%	4,293	(35)	4,258
Past due 181-365 days	8.52%	7,468	(2,110)	5,358
More than one year	100.00%	7,260	(2,971)	4,289
Customers with objective evidence of impairment		7,643	(7,068)	575
		305,904	(19,706)	286,198

A breakdown of the trade receivables net of the bad debt provision by seniority as of December 31, 2018 is as follows:

	Thousands of Euros			
	ECL Rate	**Total gross carrying amount**	**Provision**	**Total net trade receivable third party**
Not matured	0.19%	180,448	(335)	180,113
Past due 0-30 days	0.19%	52,310	(92)	52,218
Past due 31-60 days	0.62%	11,125	(67)	11,058
Past due 61-90 days	2.03%	10,729	(208)	10,521
Past due 91-180 days	3.01%	12,158	(353)	11,805
Past due 181-365 days	8.52%	4,158	(1,222)	2,936
More than one year	100.00%	7,549	(7,033)	516
Customers with objective evidence of impairment		11,221	(11,221)	—
		289,698	(20,531)	269,167

Unimpaired receivables that are past due mainly relate to public entities.

(30) Financial Instruments (Continued)

Movement in the bad debt provision was as follows:

	Thousands of Euros		
	31/12/2018	31/12/2017	31/12/2016
Opening balance	19,706	17,987	13,210
Net charges for the year	6,443	8,003	6,411
Net cancellations for the year	(5,650)	(4,732)	(2,217)
Translation differences	32	(1,552)	583
Closing balance	20,531	19,706	17,987

An analysis of the concentration of credit risk is provided in note 5 (a).

Liquidity risk

The management of the liquidity risk is explained in note 5.

Details of the contractual maturity dates of financial liabilities including committed interest calculated using interest rate forward curves are as follows:

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/17	Contractual flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
Financial liabilities								
Bank loans	20	5,052,680	6,138,673	105,584	106,492	322,421	3,115,887	2,488,289
Other financial liabilities	20	45,640	45,642	19,393	2,610	10,758	10,497	2,384
Bonds and other marketable securities	20	949,205	1,331,203	107,203	16,000	32,000	128,000	1,048,000
Finance lease payables	20	9,360	10,136	2,192	2,113	2,602	2,790	439
Payable to suppliers	21	423,096	423,096	423,020	76	—	—	—
Other current liabilities	22	14,878	14,878	14,462	416	—	—	—
Total		6,494,859	7,963,628	671,854	127,707	367,781	3,257,174	3,539,112

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/18	Contractual flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
Financial liabilities								
Bank loans	20	5,165,765	6,522,083	195,568	202,437	522,040	3,086,734	2,515,304
Other financial liabilities	20	95,217	95,218	14,167	2,095	21,324	55,863	1,769
Bonds and other marketable securities	20	1,102,978	1,305,645	113,645	16,000	32,000	128,000	1,016,000
Finance lease payables	20	12,885	13,423	1,946	1,630	3,367	5,655	825
Debts with associates	31	7,079	7,079	—	7,079	—	—	—
Payable to suppliers	21	561,883	561,884	561,559	325	—	—	—
Other current liabilities	22	16,029	16,028	15,861	167	—	—	—
Total		6,961,836	8,521,360	902,746	229,733	578,731	3,276,252	3,533,898

(30) Financial Instruments (Continued)

Currency risk

The Group's exposure to currency risk is as follows:

	Thousands of Euros	
	31/12/2017	
	Euros(*)	Dollars(**)
Trade receivables	3,596	22,936
Receivables from Group companies	103,338	7,619
Loans to Group companies	34,140	91,566
Cash and cash equivalents	63,981	2,172
Trade payables	(14,213)	(3,582)
Payables to Group companies	(42,296)	(11,241)
Loans from Group companies	(22,913)	(3,953)
Bank loans	(85,000)	—
Balance sheet exposure	40,633	105,517

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

	Thousands of Euros	
	31/12/2018	
	Euros(*)	Dollars(**)
Trade receivables	2,691	45,801
Receivables from Group companies	54,903	6,291
Loans to Group companies	40,387	4,343
Cash and cash equivalents	120,281	1,296
Trade payables	(13,354)	(6,113)
Payables to Group companies	(60,363)	(63,932)
Loans from Group companies	(94,771)	(4,336)
Bank loans	(74,375)	—
Balance sheet exposure	(24,601)	(16,650)

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

The most significant exchange rates applied at 2018 and 2017 year ends are as follows:

	Closing exchange rate	
Euros	31/12/2018	31/12/2017
US Dollars	1.1450	1.1993

A sensitivity analysis for foreign exchange fluctuations is as follows:

Had the US Dollar strengthened by 10% against the Euro at 31 December 2018, equity would have increased by Euros 506,131 thousand (Euros 416,116 thousand at 31 December 2017) and profit due to foreign exchange differences would have increased by Euros 4,125 thousand (Euros 14,615 thousand at 31 December 2017). This analysis assumes that all other variables are held constant, especially that interest rates remain constant.

(30) Financial Instruments (Continued)

A 10% weakening of the US Dollar against the Euro at 31 December 2018 and 2017 would have had the opposite effect for the amounts shown above, all other variables being held constant.

Interest rate risk

(a) Interest-rate profile

To date, the profile of interest on interest-bearing financial instruments is as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Fixed-interest financial instruments		
Financial liabilities	(1,244,375)	(1,170,000)
	(1,244,375)	(1,170,000)
Variable-interest financial instruments		
Financial liabilities	(5,233,638)	(5,049,382)
	(5,233,638)	(5,049,382)
	(6,478,013)	(6,219,382)

(b) Sensitivity analysis

If the interest rate had been 100 basis points higher during 2018, the interest expense would have increased by Euros 53,082 thousand.

If the interest rate had been 100 basis points higher during 2017, the interest expense would have increased by Euros 52,999 thousand. As the Group does not have any derivatives in place, the net effect on cash interest payments would have increased by the same amount.

(31) Balances and Transactions with Related Parties

Details of balances with related parties are as follows:

	Thousands of Euros	
	31/12/2018	31/12/2017
Receivables from associates (note 13)	382	3,219
Trade payables associates	(15,796)	(4,583)
Loans to associates (note 11)	50,304	26,654
Loans to other related parties (note 11)	82,969	—
Debts with associates	(7,079)	—
Debts with key management personnel	(4,425)	(6,164)
Payables to members of the board of directors	—	(463)
Payables to other related parties	(7,706)	(9,187)
	98,649	9,476

Payables are included in trade and other payables (see note 21).

(31) Balances and Transactions with Related Parties (Continued)

(a) Group transactions with related parties

Group transactions with related parties during 2016 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	193	—	—	—
Purchases	(35,569)	—	—	—
Other service expenses	(7,591)	—	(5,325)	(905)
Operating lease expense	—	—	(5,281)	—
Remuneration	—	(10,287)	—	(3,668)
R&D agreements	(10,188)	—	—	—
Finance result	1,946	—	—	—
	(51,209)	(10,287)	(10,606)	(4,573)

Group transactions with related parties during 2017 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	3,009	—	—	—
Purchases	(68,335)	—	—	—
Other service expenses	(11,798)	—	(7,100)	(939)
Operating lease expense	—	—	(5,426)	—
Remuneration	—	(13,672)	—	(5,755)
R&D agreements	(164)	—	—	—
Finance Result	152	—	—	—
	(77,136)	(13,672)	(12,526)	(6,694)

Group transactions with related parties during 2018 are as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	5,846	—	—	—
Purchases	(97,941)	—	—	—
Other service expenses	(21,065)	—	(4,282)	(844)
Operating lease expense	—	—	(5,469)	—
Remuneration	—	(16,070)	—	(5,848)
R&D agreements	(50)	—	—	—
Sale of investments (note 3)	—	—	469,881	—
Finance result	3,372	—	—	—
	(109,838)	(16,070)	460,130	(6,692)

Every year the Group contributes 0.7% of its profits before tax to a non-profit organization.

"Other service expenses" include contributions to non-profit organizations totaling Euros 4,282 thousand in 2018 (Euros 7,100 thousand in 2017 and Euros 5,325 thousand in 2016).

During 2011 one of the Company's directors signed a three-year consulting services contract. The director received annual fees of US Dollars 1 million for these services and an additional bonus of US Dollars

(31) Balances and Transactions with Related Parties (Continued)

2 million for complying with certain conditions. In the years 2014, 2015, 2017 and 2018 the contract has been renewed, the amount of the fees corresponds to US Dollars 1 million per year. The contract has an expiration date of 31 March 2019.

On 28 December 2018, the Group sold Biotest and Haema to Scranton Enterprises B.V (shareholder of Grifols) for US Dollars 538,014 thousand (see note 3). For the payment of the mentioned amount of the sale, Scranton signed a loan contract dated 28 December 2018 for an amount of US Dollars 95,000 thousand (Euros 82,969 thousand) with Grifols Worldwide Operations Limited. The compensation is 2%+EURIBOR and due on 28 December 2025.

Directors representing shareholders´ interests have received remuneration of Euros 1,640 thousand in 2018 (Euros 1,881 thousand in 2017).

The Group has not extended any advances or loans to the members of the board of directors or key management personnel nor has it assumed any guarantee commitments on their behalf. It has also not assumed any pension or life insurance obligations on behalf of former or current members of the board of directors or key management personnel. In addition, certain Company directors and key management personnel have termination benefit commitments (see note 29 (c)).

(b) Conflicts of interest concerning the directors

The Company's directors and their related parties have not entered into any conflict of interest that should have been reported in accordance with article 229 of the revised Spanish Companies Act.

(32) Environmental Issues

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2017 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	7,990	(1,976)	6,014
Waste management	5,060	(1,573)	3,487
Reduction of electricity consumption	13,606	(3,169)	10,437
Reduction of water consumption	12,948	(2,936)	10,012
Energy	6,051	(317)	5,734
Other	1,164	(135)	1,029
	46,819	(10,106)	36,713

(32) Environmental Issues (Continued)

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2018 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	13,467	(2,599)	10,868
Waste management	6,399	(1,920)	4,479
Reduction of electricity consumption	13,210	(4,002)	9,208
Reduction of water consumption	18,815	(3,404)	15,411
Energy	13,819	(564)	13,255
Other	2,320	(262)	2,058
	68,030	(12,751)	55,279

Expenses incurred by the Group for protection and improvement of the environment during 2018 totalled approximately Euros 15,474 thousand (Euros 13,554 thousand during 2017 and Euros 12,718 thousand during 2016).

The Group considers that the environmental risks are adequately controlled by the procedures currently in place.

The Group has not received environmental grants during 2018, 2017 and 2016.

(33) Other Information

Audit fees:

KPMG Auditores, S.L. has invoiced the following fees for professional services during 2018 and 2017:

	Thousands of Euros	
	31/12/2018	31/12/2017
Audit services	1,534	1,844
Audit-related services	601	712
	2,135	2,556

Amounts included in table above, includes the total amount of fees related to services incurred during 2018 and 2017 without considering the invoice date.

Audit-related services in 2018 include limited reviews of the semi-annual annual accounts, the audit of the consolidated annual accounts under PCAOB, the audit of GDS and reports of agreed-upon procedures.

Audit-related services in 2018 include limited reviews of the semi-annual annual accounts, the audit of the consolidated annual accounts under PCAOB, comfort letters in relation to debt issues and reports of agreed-upon procedures.

(33) Other Information (Continued)

Other entities affiliated to KPMG International have invoiced the Group for the following fees for professional services during 2018 and 2017:

	Thousands of Euros	
	31/12/2018	31/12/2017
Audit services	2,559	2,783
Audit-related	679	270
Tax advisory fees	232	51
Other services	228	7
	3,698	3,111

Other audit firms have invoiced the Group for the following fees for professional services during 2018 and 2017:

	Thousands of Euros	
	31/12/2018	31/12/2017
Audit services	83	52
	83	52

APPENDIX I
GRIFOLS, S.A. AND SUBSIDIARIES

Information on Group Companies, Associates and others for the years ended 31 December 2018, 2017 and 2016

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares		31/12/2017 % shares		31/12/2016 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Fully Consolidated Companies										
Diagnostic Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Development and manufacture of diagnostic equipment, instruments and reagents.	—	100.000%	—	100.000%	—	100.000%
Instituto Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Plasma fractioning and the manufacture of haemoderivative pharmaceutical products.	99.998%	0.002%	99.998%	0.002%	99.998%	0.002%
Grifols Worldwide Operations Spain, S.A (formerly Logister, S.A.) Merged with Grifols International in 2018	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Services	Manufacture, sale and purchase, commercialisation and distribution of all types of computer products and materials.	—	—	—	100.000%	—	100.000%
Laboratorios Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1989	Industrial	Production of glass- and plastic-packaged parenteral solutions, parenteral and enteral nutrition products and blood extraction equipment and bags.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%
Biomat, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1991	Industrial	Analysis and certification of the quality of plasma used by Instituto Grifols, S.A. It also provides transfusion centres with plasma virus inactivation services (I.P.T.H).	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Grifols Engineering, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	2000	Industrial	Design and development of the Group's manufacturing installations and part of the equipment and machinery used at these premises. The company also renders engineering services to external companies.	99.950%	0.050%	99.950%	0.050%	99.950%	0.050%
Biomat USA, Inc.	2410 Lillyvale Avenue Los Angeles (California) United States	2002	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
Grifols Biologicals LLC.	5555 Valley Boulevard Los Angeles (California) United States	2003	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%
Grifols Australia Pty Ltd.	Unit 5/80 Fairbank Clayton South Victoria 3149 Australia	2009	Industrial	Distribution of pharmaceutical products and the development and manufacture of reagents for diagnostics.	100.000%	—	100.000%	—	100.000%	—
Medion Grifols Diagnostic AG	Bonnstrasse,9 3186 Düngingen Switzerland	2009	Industrial	Development and manufacturing activities in the area of biotechnology and diagnostics.	—	100.000%	—	100.000%	—	100.000%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares		31/12/2017 % shares		31/12/2016 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Fully Consolidated Companies										
Grifols Therapeutics LLC.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%
Talecris Plasma Resources, Inc.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
Grifols Worldwide Operations Limited	Grange Castle Business Park, Grange Castle, Clondalkin, Dublin 22, Ireland	2012	Industrial	Packaging, labelling, storage, distribution, manufacture and development of pharmaceutical products and rendering of financial services to Group companies.	100.000%	—	100.000%	—	100.000%	—
Progenika Biopharma, S.A.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	99.998%	—	—	90.230%	—	89.250%
Progenika Latina, S.A. de CV	Periferico Sur Nº 4118 Int 8 Col. Jardines del Pedregal CP 01900 Alvaro Obregon DF Mexico	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	—	—	—	—	89.250%
Progenika Inc. (Merged with Grifols Diagnostic Solutions Inc. in 2017)	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, DE 19808 United States	2013	Industrial	Development, production and commercialisation of genetic tools, diagnostic equipment and therapeutic systems and products for personalised medicine and the highest quality healthcare in general.	—	—	—	—	—	89.250%
Abyntek Biopharma, S.L.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Research, development and transfer of biotechnological products and processes, as well as the commercialiation of products and services related to the biosciences.	—	—	—	—	—	80.370%
Asociación I+D Progenika	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Coordination, representation, management and promotion of the common interests of associated companies, in addition to contributing to the development, growth and internationalisation of its associates and of the biosciences sector in the Basque Country.	—	99.998%	—	90.230%	—	89.250%
Grifols Diagnostics Solutions Inc (formerly G-C Diagnostics Corp.)	4560 Horton Street 94608 Emeryville, California United States	2013	Industrial	Manufacture and sale of blood testing products	100.000%	—	100.000%	—	100.000%	—
Grifols Worldwide Operations USA Inc.	13111 Temple Avenue, City of Industry, California 91746-1510 Estados Unidos	2014	Industrial	The manufacture, warehousing, and logistical support for biological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Asia Pacific Pte, Ltd	501 Orchard Road nº20-01 238880 Wheelock Place, Singapore	2003	Commercial	Distribution and sale of medical and pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols Movaco, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Commercial	Distribution and sale of reagents, chemical products and other pharmaceutical specialities, and of medical and surgical materials, equipment and instruments for use by laboratories and health centres.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares		31/12/2017 % shares		31/12/2016 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Fully Consolidated Companies										
Grifols Portugal Productos Farmacéuticos e Hospitalares, Lda.	Rua de Sao Sebastiao,2 Zona Industrial Cabra Figa 2635-448 Rio de Mouro Portugal	1988	Commercial	Import, export and commercialisation of pharmaceutical and hospital equipment and products, particularly Grifols products.	0.010%	99.990%	0.010%	99.990%	0.010%	99.990%
Grifols Chile, S.A.	Avda. Americo Vespucio, 2242 Comuna de Conchali Santiago de Chile Chile	1990	Commercial	Development of pharmaceutical businesses, which can involve the import, production, commercialisation and export of related products.	99.000%	—	99.000%	—	99.000%	—
Grifols USA, LLC.	2410 Lillyvale Avenue Los Angeles (California) Estados Unidos	1990	Commercial	Distribution and marketing of company products.	—	100.000%	—	100.000%	—	100.000%
Grifols Argentina, S.A.	Bartolomé Mitre 3690/3790, CPB1605BUT Munro Partido de Vicente Lopez Argentina	1991	Commercial	Clinical and biological research. Preparation of reagents and therapeutic and diet products. Manufacture and commercialisation of other pharmaceutical specialities.	95.010%	4.990%	95.010%	4.990%	95.010%	4.990%
Grifols s.r.o.	Calle Zitna,2 Prague Czech Republic	1992	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products, including human plasma.	100.000%	—	100.000%	—	100.000%	—
Grifols (Thailand) Ltd	191 Silom Complex Building, 21st Follor, Silom Road, Silom, Bangrak 10500 Bangkok Thailand	2003	Commercial	Import, export and distribution of pharmaceutical products.	—	48.000%	—	48.000%	—	48.000%
Grifols Malaysia Sdn Bhd	Level 18, The Gardens North Tower, Mid Valley City, Lingkaran Syed Putra 59200 Kuala Lumpur Malaysia	2003	Commercial	Distribution and sale of pharmaceutical products.	—	30.000%	—	30.000%	—	30.000%
Grifols International, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1997	Commercial	Coordination of the marketing, sales and logistics for all the Group's subsidiaries operating in other countries.	99.998%	0.002%	99.998%	0.002%	99.998%	0.002%
Grifols Italia S.p.A	Via Carducci, 62d 56010 Ghezzano Pisa, Italy	1997	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols UK Ltd.	Gregory Rowcliffe & Milners, 1 Bedford Row, London WC1R 4BZ United Kingdom	1997	Commercial	Distribution and sale of therapeutic and other pharmaceutical products, especially haemoderivatives.	100.000%	—	100.000%	—	100.000%	—
Grifols Brasil, Lda.	Rua Umuarama, 263 Condominio Portal da Serra Vila Perneta CEP 83.325-000 Pinhais Paraná, Brazil	1998	Commercial	Import and export, preparation, distribution and sale of pharmaceutical and chemical products for laboratory and hospital use, and medical-surgical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols France, S.A.R.L.	Arteparc, Rue de la Belle du Canet, Bât. D, Route de la Côte d'Azur, 13590 Meyreuil France	1999	Commercial	Commercialisation of chemical and healthcare products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Polska Sp.z.o.o.	Grzybowska 87 street00-844 Warsaw, Poland	2003	Commercial	Distribution and sale of pharmaceutical, cosmetic and other products.	100.000%	—	100.000%	—	100.000%	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares Direct	31/12/2018 % shares Indirect	31/12/2017 % shares Direct	31/12/2017 % shares Indirect	31/12/2016 % shares Direct	31/12/2016 % shares Indirect
Fully Consolidated Companies										
Logística Grifols, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	2008	Commercial	Manufacture and commercialisation of pharmaceutical products for human and veterinary use.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols México, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	1993	Commercial	Production, manufacture, adaptation, conditioning, sale and purchase, commissioning, representation and consignment of all kinds of pharmaceutical products and the acquisition of machinery, equipment, raw materials, tools, movable goods and property for the aforementioned purposes.	99.980%	0.020%	99.980%	0.020%	99.980%	0.020%
Medion Diagnostics GmbH	Lochamer Schlag, 12D 82166 Gräfelfing Germany	2009	Commercial	Distribution and sale of biotechnological and diagnostic products.	—	100.000%	—	100.000%	—	100.000%
Grifols Nordic, AB	Sveavägen 166 11346 Stockholm Sweden	2010	Commercial	Research and development, production and marketing of pharmaceutical products, medical devices and any other asset deriving from the aforementioned activities.	100.000%	—	100.000%	—	100.000%	—
Grifols Colombia, Ltda	Carrera 7 No. 71 52 Torre B piso 9 Bogotá. D.C. Colombia	2010	Commercial	Sale, commercialisation and distribution of medicines, pharmaceutical (including but not limited to haemoderivatives) and hospital products, medical devices, biomedical equipment, laboratory instruments and reagents for diagnosis and/or healthcare software.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Deutschland GmbH	Lyoner Strasse 15, D-60528 Frankfurt am Main Germany	2011	Commercial	Procurement of the official permits and necessary approval for the production, commercialisation and distribution of products deriving from blood plasma, as well as the import, export, distribution and sale of reagents and chemical and pharmaceutical products, especially for laboratories and health centres and surgical and medical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols Canada, Ltd.	5060 Spectrum Way, Suite 405 (Principal Address) Mississauga, Ontario L4W 5N5 Canada	2011	Commercial	Distribution and sale of biotechnological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Pharmaceutical Technology (Shanghai) Co., Ltd. (formerly Grifols Pharmaceutical Consulting (Shanghai) Co., Ltd.)	Unit 901-902, Tower 2, No. 1539, West Nanjing Rd., Jing'an District, Shanghai 200040 China	2013	Commercial	Pharmaceutical consultancy services (except for diagnosis), technical and logistical consultancy services, business management and marketing consultancy services.	100.000%	—	100.000%	—	100.000%	—
Grifols Switzerland AG	Steinengraben, 5 40003 Basel Switzerland	2013	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devices and diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols (H.K.), Limited	Units 1505-7 Bershire House, 25 Westlands Road Hong Kong	2014	Commercial	Distribution and sale of diagnostic products.	—	100.000%	—	100.000%	—	100.000%
Grifols Japan K.K.	Hilton Plaza West Office Tower, 19th floor. 2-2, Umeda 2-chome, Kita-ku Osaka-shi Japan	2014	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devices and diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols India Healthcare Private Ltd	Regus Business Centre Pvt.Ltd.,Level15,Dev Corpora, Plot No.463,Nr. Khajana East.Exp.Highway,Thane (W), Mumbai—400604, Maharashtra India	2014	Commercial	Distribution and sale of pharmaceutical products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Diagnostics Equipment Taiwan Limited	8F., No.367, Fuxing N. RD., Songshang Dist., Taipei City 10543, Taiwan	2016	Commercial	Distribution and sale of diagnostic products.	100.000%	—	100.000%	—	100.000%	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares Direct	31/12/2018 % shares Indirect	31/12/2017 % shares Direct	31/12/2017 % shares Indirect	31/12/2016 % shares Direct	31/12/2016 % shares Indirect
Fully Consolidated Companies										
Grifols Viajes, S.A.	Can Guasch, 2 08150 Parets del Vallès Barcelona, Spain	1995	Services	Travel agency exclusively serving Group companies.	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Squadron Reinsurance Designated Activity Company (formerly Squadron Reinsurance Ltd.)	The Metropolitan Building, 3rd Fl. James Joyce Street, Dublin Ireland	2003	Services	Reinsurance of Group companies' insurance policies.	—	100.000%	—	100.000%	—	100.000%
Grifols Shared Services North America, Inc. (formerly Grifols Inc.)	2410 Lillivale Avenue 90032 Los Angeles, California United States	2011	Services	Support services for the collection, manufacture, sale and distribution of plasma derivatives and related products.	100.000%	—	100.000%	—	100.000%	—
Gripdan Invest, S.L	Avenida Diagonal 477 Barcelona, Spain	2015	Services	Manufacturing buildings for rent	100.000%	—	100.000%	—	100.000%	—
Gri-Cel, S.A.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2009	Research	Research and development in the field of regenerative medicine, awarding of research grants, subscription to collaboration agreements with entities and participation in projects in the area of regenerative medicine.	0.001%	99.999%	0.001%	99.999%	0.001%	99.999%
Araclon Biotech, S.L.	Paseo de Sagasta, 17 2º izqda. Zaragoza, Spain	2012	Research	Creation and commercialisation of a blood diagnosis kit for the detection of Alzheimer's and development of effective immunotherapy (vaccine) against this disease.	—	73.220%	—	73.220%	—	73.220%
VCN Bioscience, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2012	Research	Research and development of therapeutic approaches for tumours for which there is currently no effective treatment.	—	81.340%	—	81.340%	—	81.340%
Grifols Innovation and New Technologies Limited	Grange Castle Business Park, Grange Castle, Clondalkin, Dublin 22, Ireland	2016	Research	Research and experimental development on biotechnology	—	100.000%	—	100.000%	—	100.000%
PBS Acquisition Corp.	2711 Centerville Road Suite 400, Wilmington, Delaware, New Castle County United States	2016	Services	Engage in any lawful act or activity for which corporations may be organized under the DGCL (Delaware Code)	—	100.000%	—	100.000%	—	100.000%
Kiro Grifols S.L (formerly Kiro Robotics S.L)	Polígono Bainuetxe, 5, 2º planta, Aretxabaleta, Guipúzcoa Spain	2014	Research	Development of machines and equipment to automate and control key points of hospital processes, and hospital pharmacy processes.	90.000%	—	90.000%	—	—	—
Chiquito Acquisition Corp.	2711 Centerville Road Suite 400, Wilmington, Delaware, County of New Castle, United States	2017	Corporate	Engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware, as amended from time to time (the "DGCL").	—	100.000%	—	100.000%	—	—
Aigües Minerals de Vilajuiga, S.A.	Carrer Sant Sebastià, 2, 17493 Vilajuïga, Girona	2017	Industrial	Collection and use of mineral-medicinal waters and achievement of all necessary administrative concessions in order to facilitate their industrial extraction and find the best way to take advantage of them.	100.000%	—	—	—	—	—
Goetech LLC (D/B/A Medkeeper)	7600 Grandview Avenue, Suite 210, Arvada, CO 80002	2018	Industrial	Development and distribution of web and mobile-based platforms for hospital pharmacies	—	54.760%	—	—	—	—
Haema, AG	LandsteinerstraBe 1, 04103 Leipzig—Germany	2018	Industrial	Procuring human plasma.	—	—	—	—	—	
Biotest Pharmaceutical Corporation	901 Yamato Rd., Suite 101, Boca Raton FL 33431—USA	2018	Industrial	Obtaining human plasma.	—	—	—	—	—	—
Biotest US Corporation	901 Yamato Rd., Suite 101, Boca Raton FL 33431—USA	2018	Corporate	Corporate services to Biotest Pharmaceutical Corporation	—	—	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares Direct	31/12/2018 % shares Indirect	31/12/2017 % shares Direct	31/12/2017 % shares Indirect	31/12/2016 % shares Direct	31/12/2016 % shares Indirect
Equity Method consolidated companies and others										
Aradigm Corporation	3929 Point Eden Way Hayward, California United States	2013	Research	Development and commercialisation of drugs delivered by inhalation for the prevention and treatment of severe respiratory diseases.	—	35.130%	—	35.130%	—	35.130%
TiGenix N.V.	Romeinse straat 12 bus 2, 3001 Leuven, Belgium	2013	Research	Research and development of therapies based on stem cells taken from adipose tissue.	—	—	—	14.180%	—	16.130%
Mecwins, S.L.	Avenida Fernandos Casas Novoa, 37 Santiago de Compostela Spain	2013	Research	Research and production of nanotechnological, biotechnological and chemical solutions.	—	24.990%	—	8.420%	—	8.420%
Kiro Grifols S.L (formerly Kiro Robotics S.L)	Polígono Bainuetxe, 5, 2º planta, Aretxabaleta, Guipúzcoa Spain	2014	Research	Development of machines and equipment to automate and control key points of hospital processes, and hospital pharmacy processes.	—	—	—	—	50.000%	—
Alkahest, Inc.	3500 South DuPont Hwy, Dover, County of Kent United States	2015	Research	Development novel plasma-based products for the treatment of cognitive decline in aging and disorders of the central nervous system (CNS).	—	47.580%	—	47.580%	—	47.580%
Albajuna Therapeutics, S.L	Hospital Germans Trias i Pujol, carretera de Canyet, s/n, Badalona Spain	2016	Research	Development and manufacture of therapeutic antibodies against HIV.	—	30.000%	—	30.000%	—	30.000%
Interstate Blood Bank, Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	49.190%	—	49.190%	—	49.190%
Bio Blood Components Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.972%	—	48.972%	—	48.972%
Plasma Biological Services, LLC	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.900%	—	48.900%	—	48.900%
Singulex, Inc.	4041 Forest Park Avenue St. Louis, Missouri United States	2016	Research	Development of the Single Molecule Counting (SMC™) technology for clinical diagnostic and scientific discovery.	—	19.330%	—	19.330%	—	20.000%
Aigües Minerals de Vilajuiga, S.A.	Carrer Sant Sebastià, 2, 17493 Vilajuïga, Girona	2017	Industrial	Collection and use of mineral-medicinal waters and achievement of all necessary administrative concessions in order to facilitate their industrial extraction and find the best way to take advantage of them.	—	—	50.000%	—	—	—
Access Biologicals, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	49.000%	—	—
Access Biologicals IC-DISC, Inc.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	49.000%	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2018 % shares		31/12/2017 % shares		31/12/2016 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Access Cell Culture, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	49.000%	—	—
Access Manufacturing, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	49.000%	—	—
Access Plasma, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	49.000%	—	—
GigaGen Inc.	407 Cabot Road South San Francisco, CA 94080, USA	2017	Industrial	Engage in any lawful act or activity for which corporations may be organized under General Corporation Law.	—	43.960%	—	43.960%	—	—
Plasmavita Healthcare GmbH	Colmarer Strasse 22, 60528 Frankfurt am Main—Germany	2018	Industrial	Procuring human plasma.	—	50.000%	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Operating Segments for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Bioscience			Hospital			Diagnostic			Bio Supplies			Others			Intersegments			Consolidated		
	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Revenues from external customers	3,516,704	3,429,785	3,195,424	119,454	105,649	102,251	702,265	732,369	691,701	167,004	66,791	57,239	22,451	18,263	34,601	(41,154)	(34,784)	(31,386)	4,486,724	4,318,073	4,049,830
Total operating income	**3,516,704**	**3,429,785**	**3,195,424**	**119,454**	**105,649**	**102,251**	**702,265**	**732,369**	**691,701**	**167,004**	**66,791**	**57,239**	**22,451**	**18,263**	**34,601**	**(41,154)**	**(34,784)**	**(31,386)**	**4,486,724**	**4,318,073**	**4,049,830**
Profit/(Loss) for the segment	**902,402**	**985,495**	**913,840**	**(12,587)**	**(9,766)**	**(8,765)**	**215,990**	**248,080**	**97,320**	**36,824**	**35,598**	**33,794**	**19,788**	**(9,632)**	**44,324**	**(5,764)**	**(12,305)**	**(1,316)**	**1,156,653**	**1,237,470**	**1,079,197**
Unallocated expenses																			(162,529)	(234,127)	(139,789)
Operating profit																			**994,124**	**1,003,343**	**939,408**
Finance result																			**(257,244)**	**(287,734)**	**(233,589)**
Share of profit/(loss) of equity accounted investee	2,839	(10,434)	(9,396)	—	2,112	(5,611)	(10,975)	(9,335)	—	3,039	1,830	—	(5,941)	(4,060)	21,940	—	—	—	**(11,038)**	**(19,887)**	**6,933**
Income tax expense																			(131,436)	(34,408)	(168,209)
Profit for the year after tax																			**594,406**	**661,314**	**544,543**
Segment assets	**6,928,220**	**6,007,153**	**6,524,922**	**250,543**	**145,477**	**86,590**	**3,526,136**	**3,356,185**	**1,909,447**	**117,673**	**7,409**	**8,378**	**54,363**	**60,449**	**40,160**	**(29,281)**	**(22,196)**	**(11,964)**	**10,847,654**	**9,554,477**	**8,557,533**
Equity accounted investments	99,547	83,905	104,996	—	—	13,888	19,256	29,322	43,330	47,742	44,220	—	60,360	61,562	39,131	—	—	—	226,905	219,009	201,345
Unallocated assets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,402,487	1,146,778	1,370,894
Total assets																			**12,477,046**	**10,920,264**	**10,129,772**
Segment liabilities	**764,377**	**423,415**	**411,604**	**32,767**	**13,560**	**8,415**	**230,517**	**192,720**	**186,389**	**6,427**	**—**	**—**	**34,698**	**26,903**	**1,843**	**—**	**—**	**—**	**1,068,786**	**656,598**	**608,251**
Unallocated liabilities	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,711,656	6,629,701	5,793,543
Total liabilities																			**7,780,442**	**7,286,299**	**6,401,794**
Other information:																					
Amortisation and depreciation allocated	156,893	157,478	152,821	10,819	6,436	5,915	44,030	40,815	32,180	5,656	—	—	1,941	2,237	3,445	—	—	—	**219,339**	**206,966**	**194,361**
Amortisation and depreciation unallocated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**9,270**	**8,524**	**7,508**
Expenses that do not require cash payments allocated	172,648	7,049	16,219	297	(514)	306	(27,651)	(4,423)	(2,001)	28	—	—	—	—	(32,534)	—	—	—	**145,322**	**2,112**	**(18,010)**
Expenses that do not require cash payments unallocated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**1,339**	**(58,752)**	**4,608**
Additions for the year of property, plant & equipment and intangible assets allocated	220,531	227,635	197,741	15,354	10,429	9,193	58,064	70,032	89,760	2,050	198	84	883	20,911	13,313	—	—	—	**296,882**	**329,205**	**310,091**
Additions for the year of property, plant & equipment and intangible assets unallocated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**19,795**	**11,268**	**12,011**

* As a result of the creation of Bio Supplies segment and intersegments, the Group has reviewed the allocation of balances and transactions by segments. The comparative figure for year 2016 have been restated accordingly.

This appendix forms an integral part of note 6 to the consolidated annual accounts.

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Reporting by geographical area
for the years ended 31 December 2018, 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Spain			Rest of European Union			USA + Canada			Rest of World			Consolidated		
	2018	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
Net Revenue	**264,913**	**242,894**	**225,273**	**535,361**	**444,089**	**426,223**	**2,974,429**	**2,896,505**	**2,707,579**	**712,021**	**734,585**	**690,755**	**4,486,724**	**4,318,073**	**4,049,830**
Assets by geographical area	**898,599**	**899,223**	**847,467**	**3,177,781**	**2,397,200**	**2,467,295**	**8,133,108**	**7,341,174**	**6,535,420**	**267,558**	**282,667**	**279,590**	**12,477,046**	**10,920,264**	**10,129,772**
Other information:															
Additions for the year of property, plant & equipment and intangible assets	70,639	62,271	73,365	69,534	80,910	39,603	166,353	188,557	190,358	10,151	8,735	18,776	**316,677**	**340,473**	**322,102**

This appendix forms an integral part of note 6 to the consolidated annual accounts.

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2018
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2017	Additions	Business combinations	Transfers	Disposals	Translation differences	Balances at 31/12/2018
Development costs	311,694	55,439	—	—	(36)	10,215	377,312
Concessions, patents, licenses brands & similar	182,885	—	6,225	—	(757)	8,057	196,410
Computer software	174,945	20,252	34,319	(762)	(1,116)	6,785	234,423
Currently marketed products	1,024,376	—	—	—	—	47,451	1,071,827
Other intangible assets	147,307	48	19,749	—	—	7,664	174,768
Total cost of intangible assets	1,841,207	75,739	60,293	(762)	(1,909)	80,172	2,054,740
Accum. amort. of development costs	(79,349)	(10,660)	—	—	—	(98)	(90,107)
Accum. amort of concessions, patents, licenses, brands & similar	(29,783)	(6,132)	—	—	—	(845)	(36,760)
Accum. amort. of computer software	(106,319)	(12,918)	(5,872)	—	1,116	(2,660)	(126,653)
Accum. amort. of currently marketed products	(231,068)	(36,154)	—	—	—	(11,573)	(278,795)
Accum. amort. of other intangible assets	(61,966)	(5,536)	—	246	—	(3,297)	(70,553)
Total accum. amort intangible assets	(508,485)	(71,400)	(5,872)	246	1,116	(18,473)	(602,868)
Impairment of other intangible assets	(63,380)	—	—	—	—	(2,955)	(66,335)
Carrying amount of intangible assets	**1,269,342**	**4,339**	**54,421**	**(516)**	**(793)**	**58,744**	**1,385,537**

(See note 3)

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2017
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2016	Additions	Business combinations *	Transfers	Disposals	Translation differences	Balances at 31/12/2017
Development costs	142,693	43,152	142,529	—	(81)	(16,599)	311,694
Concessions, patents, licenses brands & similar	60,471	—	142,174	—	—	(19,760)	182,885
Computer software	168,623	19,626	26	529	(126)	(13,733)	174,945
Currently marketed products	1,162,204	—	—	—	—	(137,828)	1,024,376
Other intangible assets	148,682	17,348	—	—	—	(18,723)	147,307
Total cost of intangible assets	1,682,673	80,126	284,729	529	(207)	(206,643)	1,841,207
Accum. amort. of development costs	(72,073)	(5,834)	—	—	—	(1,442)	(79,349)
Accum. amort of concessions, patents, licenses, brands & similar	(24,994)	(6,004)	—	—	—	1,215	(29,783)
Accum. amort. of computer software	(99,927)	(13,549)	—	—	111	7,046	(106,319)
Accum. amort. of currently marketed products	(220,988)	(38,216)	—	—	—	28,136	(231,068)
Accum. amort. of other intangible assets	(69,389)	(865)	—	—	—	8,288	(61,966)
Total accum. amort intangible assets	(487,371)	(64,468)	—	—	111	43,243	(508,485)
Impairment of other intangible assets	—	(64,734)	—	—	—	1,354	(63,380)
Carrying amount of intangible assets	**1,195,302**	**(49,076)**	**284,729**	**529**	**(96)**	**(162,046)**	**1,269,342**

(See note 3)

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended 31 December 2018
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2017	Additions	Business combination	Transfers	Disposals	Translation differences	Balances at 31/12/2018
Cost:							
Land and buildings	673,534	1,223	19,344	6,051	(280)	26,540	726,412
Plant and machinery	1,704,679	57,699	79,003	100,961	(15,855)	58,366	1,984,853
Fixed Assets under construction	262,119	182,016	1,746	(106,473)	—	5,983	345,391
	2,640,332	240,938	100,093	539	(16,135)	90,889	3,056,656
Accumulated depreciation:							
Buildings	(66,765)	(15,224)	(4,682)	—	222	(2,929)	(89,378)
Plant and machinery	(810,782)	(141,985)	(46,995)	(23)	13,025	(25,975)	(1,012,735)
	(877,547)	(157,209)	(51,677)	(23)	13,247	(28,904)	(1,102,113)
Impairment of other property, plant and equipment	(2,732)	81	—	—	—	91	(2,560)
Carrying amount	**1,760,053**	**83,810**	**48,416**	**516**	**(2,888)**	**62,076**	**1,951,983**

(See note 3)

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended 31 December 2017
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2016	Additions	Business combination	Transfers	Disposals	Translation differences	Balances at 31/12/2017
Cost:							
Land and buildings	687,856	28,503	19,628	12,694	(823)	(74,324)	673,534
Plant and machinery	1,655,837	82,234	9,068	123,816	(10,098)	(156,178)	1,704,679
Fixed Assets under construction	275,003	149,610	555	(137,073)	—	(25,976)	262,119
	2,618,696	260,347	29,251	(563)	(10,921)	(256,478)	2,640,332
Accumulated depreciation:							
Buildings	(59,376)	(14,708)	—	—	710	6,609	(66,765)
Plant and machinery	(746,268)	(136,314)	—	34	7,993	63,773	(810,782)
	(805,644)	(151,022)	—	34	8,703	70,382	(877,547)
Impairment of other property, plant and equipment	(3,200)	258	—	—	—	210	(2,732)
Carrying amount	**1,809,852**	**109,583**	**29,251**	**(529)**	**(2,218)**	**(185,886)**	**1,760,053**

(See note 3)

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2018

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2018:	
Projected profits net of taxes until 31/12/2018	258,091
Less, charge required to legal reserve	—
Estimated profits distributable for 2018	258,091
Interim dividend distributed	136,747
Forecast cash for the period 26 October 2018 to 26 October 2019:	
Cash balances at 26 October 2018	—
Projected amounts collected	572,263
Projected payments, including interim dividend	544,112
Projected cash balances at 26 October 2019	28,151

This appendix forms an integral part of note 15 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2017:	
Projected profits net of taxes until 31/12/2017	273,472
Less, charge required to legal reserve	—
Estimated profits distributable for 2017	273,472
Interim dividend distributed	122,986
Forecast cash for the period 15 December 2017 to 15 December 2018:	
Cash balances at 15 December 2017	—
Projected amounts collected	475,209
Projected payments, including interim dividend	468,117
Projected cash balances at 15 December 2018	7,092

This appendix forms an integral part of note 15 to the consolidated annual accounts.

Grifols, S.A. and Subsidiaries

Condensed Consolidated Interim Financial Statements
30 June 2018

Interim Consolidated Directors' Report
30 June 2018

(With Limited Review Report thereon)
(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails.)

KPMG Auditores, S.L.
Torre Realia
Plaça d'Europa, 41-43
08908 L'Hospitalet de Llobregat
(Barcelona)

(Translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails.)

Limited Review on the Condensed Consolidated Interim Financial Statements

To the shareholders of
Grifols, S.A. commissioned by the Directors

Report on the Condensed Consolidated Interim Financial Statements

Introduction

We have carried out a limited review of the accompanying condensed consolidated interim financial statements (the "interim financial statements") of Grifols, S.A. (the "Company") and subsidiaries (the "Group"), which comprise the balance sheet at 30 June 2018, the income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and the explanatory notes for the 6-month period then ended (all condensed and consolidated). Pursuant to article 12 of Royal Decree 1362/2007 the Directors of the Company are responsible for the preparation of these interim financial statements in accordance with International Accounting Standard (IAS) 34 Interim Financial Reporting as adopted by the European Union. Our responsibility is to express a conclusion on these interim financial statements based on our limited review.

Scope of Review

We conducted our limited review in accordance with the International Standard on Review Engagements 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". A limited review of interim financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A limited review is substantially less in scope than an audit conducted in accordance with prevailing legislation regulating the audit of accounts in Spain and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion on the accompanying interim financial statements.

Conclusion

Based on our limited review, which can under no circumstances be considered an audit, nothing has come to our attention that causes us to believe that the accompanying interim financial statements for the 6-month period ended 30 June 2018 have not been prepared, in all material respects, in accordance with International Accounting Standard (IAS) 34 Interim Financial Reporting, as adopted by the European Union, for the preparation of condensed interim financial statements, pursuant to article 12 of Royal Decree 1362/2007.

Emphasis of Matter

We draw your attention to note 2 to the accompanying interim financial statements, which states that these interim financial statements do not include all the information required in complete consolidated financial statements prepared in accordance with International Financial Reporting Standards as adopted by the European Union. The accompanying interim financial statements should therefore be read in conjunction with the Group's consolidated annual accounts for the year ended 31 December 2017. This matter does not modify our conclusion.

Report on Other Legal and Regulatory Requirements

The accompanying consolidated interim directors' report for the 6-month period ended 30 June 2018 contains such explanations as the Directors of the Company consider relevant with respect to the significant events that have taken place in this period and their effect on the consolidated interim financial statements, as well as the disclosures required by article 15 of Royal Decree 1362/2007. The consolidated interim directors' report is not an integral part of the consolidated interim financial statements. We have verified that the accounting information contained therein is consistent with that disclosed in the interim financial statements for the 6-month period ended 30 June 2018. Our work is limited to the verification of the consolidated interim directors' report within the scope described in this paragraph and does not include a review of information other than that obtained from the accounting records of Grifols, S.A. and subsidiaries.

Paragraph on Other Matters

This report has been prepared at the request of the Company's Directors in relation to the publication of the six-monthly financial report required by article 119 of the Revised Securities Market Law, enacted by Royal Decree 1362/2007 of 19 October 2007.

KPMG Auditores, S.L.

(*Signed on original in Spanish*)

Olga Sánchez López

25 July 2018

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Balance Sheets

as of 30 June 2018 and 31 December 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Assets	30/06/2018 (unaudited)	31/12/2017
Non-current assets		
Goodwill (note 6)	4,993,142	4,590,498
Other intangible assets (note 7)	1,342,527	1,269,342
Property, plant and equipment (note 7)	1,819,289	1,760,053
Investments in equity accounted investees (note 3)	225,781	219,009
Non-current financial assets (note 8)		
Non-current financial assets measured at fair value	507	47,046
Non-current financial assets at amortized cost	37,941	22,843
Deferred tax assets	67,059	66,157
Total non-current assets	**8,486,246**	**7,974,948**
Current assets		
Inventories	1,806,765	1,629,293
Trade and other receivables		
Trade receivables (note 9)	307,225	286,198
Other receivables (note 9)	82,100	40,681
Current tax assets	26,419	59,531
Trade and other receivables	415,744	386,410
Other current financial assets (note 8)		
Non-current financial assets measured at fair value	8,578	0
Non-current financial assets at amortized cost	12,481	10,738
Other current assets	35,306	32,354
Cash and cash equivalents	668,499	886,521
Total current assets	**2,947,373**	**2,945,316**
Total assets	**11,433,619**	**10,920,264**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Balance Sheets (Continued)

as of 30 June 2018 and 31 December 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Equity and liabilities	30/06/2018 (unaudited)	31/12/2017
Equity		
Share capital (note 10)	119,604	119,604
Share premium (note 10)	910,728	910,728
Reserves (note 10)	2,452,375	2,027,648
Treasury stock (note 10)	(55,441)	(62,422)
Interim dividend	0	(122,986)
Profit attributable to the Parent	318,979	662,700
Total	3,746,245	3,535,272
Available for sale financial assets	0	4,926
Other comprehensive Income	(656)	(656)
Translation differences	221,811	89,537
Other comprehensive income	221,155	93,807
Equity attributable to the Parent	**3,967,400**	**3,629,079**
Non-controlling interests	3,844	4,886
Total equity	**3,971,244**	**3,633,965**
Liabilities		
Non-current liabilities		
Grants	11,927	11,822
Provisions	6,136	5,763
Non-current financial liabilities (note 11)	6,023,747	5,901,815
Non-current debts with related companies	9,000	0
Other non-current liablities	2,043	0
Deferred tax liabilities	393,832	388,912
Total non-current liabilities	**6,446,685**	**6,308,312**
Current liabilities		
Provisions	81,194	106,995
Current financial liabilities (note 11)	205,095	155,070
Trade and other payables		
Suppliers	427,194	423,096
Other payables	143,338	141,720
Current income tax liabilities	20,278	6,709
Total trade and other payables	590,810	571,525
Other current liabilities	138,591	144,397
Total current liabilities	**1,015,690**	**977,987**
Total liabilities	**7,462,375**	**7,286,299**
Total equity and liabilities	**11,433,619**	**10,920,264**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Profit or Loss

for each of the three-and six-month periods ended 30 June 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Six-Months Ended		Three-Months Ended	
	30/06/2018	30/06/2017	30/06/2018	30/06/2017
	(unaudited)	(unaudited)	(unaudited)/ (not reviewed)	(unaudited)/ (not reviewed)
Continuing Operations				
Net revenue (note 5)	2,120,118	2,192,447	1,097,106	1,130,767
Cost of sales	(1,113,858)	(1,089,246)	(579,680)	(569,463)
Gross Margin	**1,006,260**	**1,103,201**	**517,426**	**561,304**
Research and Development	(112,247)	(121,575)	(58,281)	(62,404)
Sales, General and Administration expenses	(387,771)	(443,789)	(197,453)	(213,775)
Operating Expenses	**(500,018)**	**(565,364)**	**(255,734)**	**(276,179)**
Operating Results	**506,242**	**537,837**	**261,692**	**285,125**
Finance income	7,049	4,164	4,107	2,152
Finance costs	(135,914)	(135,487)	(71,306)	(69,493)
Impairment of financial instruments	31,116	(5,500)	31,116	0
Exchange differences	(5,439)	(10,760)	(3,554)	(14,017)
Finance Result (note 13)	**(103,188)**	**(147,583)**	**(39,637)**	**(81,358)**
Share of income/(losses) of equity accounted investees	(5,729)	(10,295)	(3,667)	(7,007)
Profit before income tax from continuing operations	**397,325**	**379,959**	**218,388**	**196,760**
Income tax expense (note 14)	(79,442)	(102,589)	(43,376)	(53,125)
Profit after income tax from continuing operations	**317,883**	**277,370**	**175,012**	**143,635**
Consolidated profit for the period	**317,883**	**277,370**	**175,012**	**143,635**
Profit attributable to the Parent	318,979	277,861	175,572	143,868
(Profit) attributable to non-controlling interest	(1,096)	(491)	(560)	(233)
Basic earnings per share (Euros)	0.47	0.41	0.26	0.21
Diluted earnings per share (Euros)	0.47	0.41	0.26	0.21

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Comprehensive Income

for each of the three-and six-month periods ended 30 June 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Six-Months' Ended		Three-Months' Ended	
	30/06/2018	30/06/2017	30/06/2018	30/06/2017
	(unaudited)	(unaudited)	(unaudited)/ (not reviewed)	(unaudited)/ (not reviewed)
Consolidated profit for the period	**317,883**	**277,370**	**175,012**	**143,635**
Items for reclassification to profit or loss				
Translation differences	127,018	(319,057)	259,657	(276,585)
Equity accounted investees / Translation differences	5,354	(16,425)	(816)	(13,326)
Other comprehensive income for the period, after tax	**132,372**	**(335,482)**	**258,841**	**(289,911)**
Total comprehensive income for the period	**450,255**	**(58,112)**	**433,853**	**(146,276)**
Total comprehensive income attributable to the Parent	451,253	(57,506)	434,402	(145,806)
Total comprehensive (income)/ loss attributable to non-controlling interests	(998)	(606)	(549)	(470)
Total comprehensive income for the period	**450,255**	**(58,112)**	**433,853**	**(146,276)**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Cash Flows

for each of the six-month periods ended 30 June 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	30/06/2018	30/06/2017
	(unaudited)	
Cash flows from operating activities		
Profit before tax	**397,325**	**379,959**
Adjustments for:	**191,407**	**249,022**
Amortisation and depreciation	107,958	106,549
Other adjustments:	83,449	142,473
(Profit)/Losses on equity accounted investments	5,729	10,295
Impairment of Assets and net provision changes	(24,463)	(279)
Loss on disposal of fixed assets	855	249
Government grants taken to income	(482)	(707)
Finance cost	92,031	130,897
Other adjustments	9,779	2,018
Changes operating assets and liabilities	**(214,300)**	**(69,264)**
Change in inventories	(139,046)	(64,217)
Change in trade and other receivables	(63,263)	39,078
Change in current financial assets and other current assets	510	5,205
Change in current trade and other payables	(12,501)	(49,330)
Other cash flows used in operating activities	**(125,247)**	**(181,154)**
Interest paid	(103,459)	(106,706)
Interest recovered	4,548	2,993
Income tax paid	(26,305)	(77,075)
Other paid	(31)	(366)
Net cash from operating activities	**249,185**	**378,563**
Cash flows from investing activities		
Payments for investments	**(399,859)**	**(1,959,854)**
Group companies and business units	(255,406)	(1,813,163)
Property, plant and equipment and intangible assets	(130,834)	(146,155)
Property, plant and equipment	(93,828)	(125,562)
Intangible assets	(37,006)	(20,593)
Other financial assets	(13,619)	(536)
Proceeds from the sale of financial investments	**70,119**	**20,451**
Proceeds from the sale of property, plant and equipment	**290**	**551**
Net cash used in investing activities	**(329,450)**	**(1,938,852)**
Cash flows from financing activities		
Proceeds from and payments for financial liability intruments	(19,789)	1,723,945
Issue	91,722	1,814,727
Redemption and repayment	(111,511)	(90,782)
Dividends and interest on other equity instruments paid and received	(140,168)	(95,274)
Dividends paid	(142,095)	(95,274)
Dividends received	1,927	0
Other cash flows from financing activities	(1,111)	(151,374)
Costs of financial instruments issued	0	(142,288)
Other payments from financing activities	(1,111)	(9,086)
Net cash used in financing activities	**(161,068)**	**1,477,297**
Effect of exchange rate fluctuations on cash and cash equivalents	**23,311**	**(61,799)**
Net decrease in cash and cash equivalents	**(218,022)**	**(144,791)**
Cash and cash equivalents at beginning of the period	**886,521**	**895,009**
Cash and cash equivalents at end of period	**668,499**	**750,218**

The accompanying notes form an integral part of the unaudited condensed consolidated interim financial statements.

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Changes in Equity

for each of the six-month periods ended 30 June 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to equity holders of the Parent											
							Accumulated other comprehensive income					
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury Stock	Translation differences	Available for sale financial assets	Other comprehensive income	Equity attributable to Parent	Non-controlling interests	Equity
Balances at 31 December 2016	**119,604**	**910,728**	**1,694,245**	**545,456**	**(122,908)**	**(68,710)**	**648,927**	**(5,219)**	**(642)**	**3,721,481**	**6,497**	**3,727,978**
Translation differences	—	—	—	—	—	—	(335,367)	—	—	(335,367)	(115)	(335,482)
Other comprehensive income for the period	0	0	0	0	0	0	(335,367)	0	0	(335,367)	(115)	(335,482)
Profit/(loss) for the period	—	—	—	277,861	—	—	—	—	—	277,861	(491)	277,370
Total comprehensive income for the period	0	0	0	277,861	0	0	(335,367)	0	0	(57,506)	(606)	(58,112)
Net change in treasury stock	—	—	—	—	—	6,288	—	—	—	6,288	—	6,288
Acquisition of non-controlling interests	—	—	27	—	—	—	—	—	—	27	(27)	0
Other changes	—	—	4,003	—	—	—	—	23	—	4,026	(76)	3,950
Distribution of 2016 profit												
Reserves	—	—	422,548	(422,548)	—	—	—	—	—	0	—	0
Dividends	—	—	(95,274)	—	—	—	—	—	—	(95,274)	—	(95,274)
Interim dividend	—	—	—	(122,908)	122,908	—	—	—	—	0	—	0
Operations with equity holders or owners	0	0	331,304	(545,456)	122,908	6,288	0	23	0	(84,933)	(103)	(85,036)
Balances at 30 June 2017 (unaudited)	**119,604**	**910,728**	**2,025,549**	**277,861**	**0**	**(62,422)**	**313,560**	**(5,196)**	**(642)**	**3,579,042**	**5,788**	**3,584,830**

GRIFOLS, S.A. AND SUBSIDIARIES

Condensed Consolidated Statements of Changes in Equity (Continued)

for each of the six-month periods ended 30 June 2018 and 2017

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to equity holders of the Parent											
							Accumulated other comprehensive income					
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury Stock	Translation differences	Available for sale financial assets	Other comprehensive income	Equity attributable to Parent	Non-controlling interests	Equity
Balances at 31 December 2017	**119,604**	**910,728**	**2,027,648**	**662,700**	**(122,986)**	**(62,422)**	**89,537**	**4,926**	**(656)**	**3,629,079**	**4,886**	**3,633,965**
Impact of new IFRS (note 2)	—	—	29,562	—	—	—	—	(4,926)	—	24,636	0	24,636
Balances at 31 December 2017	**119,604**	**910,728**	**2,057,210**	**662,700**	**(122,986)**	**(62,422)**	**89,537**	**0**	**(656)**	**3,653,715**	**4,886**	**3,658,601**
Translation differences	—	—	—	—	—	—	132,274	—	—	132,274	98	132,372
Other Comprehensive income	—	—	—	—	—	—	—	—	—	0	—	0
Other comprehensive income for the period	0	0	0	0	0	0	132,274	0	0	132,274	98	132,372
Profit/(loss) for the period	—	—	—	318,979	—	—	—	—	—	318,979	(1,096)	317,883
Total comprehensive income for the period	0	0	0	318,979	0	0	132,274	0	0	451,253	(998)	450,255
Net change in treasury stock	—	—	—	—	—	6,981	—	—	—	6,981	—	6,981
Acquisition of non-controlling interests	—	—	—	—	—	—	—	—	—	0	—	0
Other changes	—	—	(2,455)	—	—	—	—	—	—	(2,455)	—	(2,455)
Distribution of 2015 profit												
Reserves	—	—	539,714	(539,714)	—	—	—	—	—	0	(44)	(44)
Dividends	—	—	(142,094)	—	—	—	—	—	—	(142,094)	—	(142,094)
Interim dividend	—	—	—	(122,986)	122,986	—	—	—	—	0	—	0
Operations with equity holders or owners	0	0	395,165	(662,700)	122,986	6,981	0	0	0	(137,568)	(44)	(137,612)
Balances at 30 June 2018 (unaudited)	**119,604**	**910,728**	**2,452,375**	**318,979**	**0**	**(55,441)**	**221,811**	**0**	**(656)**	**3,967,400**	**3,844**	**3,971,244**

(1) General Information

Grifols, S.A. (hereinafter the Company) was incorporated with limited liability under Spanish law on 22 June 1987. Its registered and tax offices are in Barcelona. The Company's statutory activity consists of providing corporate and business administrative, management and control services, as well as investing in assets and property. Its principal activity involves rendering administrative, management and control services to its subsidiaries.

All the Company's shares are listed in the Barcelona, Madrid, Valencia, and Bilbao securities markets and on the Spanish Automated Quotation System (SIBE/Continuous Market). On 2 June 2011, Class B non-voting shares were listed on the NASDAQ (USA) and on the Spanish Automated Quotation System (SIBE/Continuous Market).

Grifols, S.A. is the parent company of the Group (hereinafter the Group or Grifols) which acts on an integrated basis under a common management and whose main activity is the procurement, manufacture, preparation, and sale of therapeutic products, especially haemoderivatives.

The main factory locations of the Group's Spanish companies are in Parets del Vallés (Barcelona) and Torres de Cotilla (Murcia), while the US companies are located in Los Angeles, (California), Clayton (North Carolina), Emeryville (California) and San Diego (California).

(2) Basis of Presentation and Accounting Principles Applied

These condensed consolidated interim financial statements for the six-month period ended 30 June 2018 have been prepared under International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and specifically, with that provided by the guidelines of International Accounting Standard (hereinafter IAS) 34 on Interim Financial Reporting. They do not include all of the information required for full annual financial statements, and should be read in conjunction with the consolidated financial statements of the Group for the year ended 31 December 2017.

The Board of Directors of Grifols, S.A. authorised these condensed consolidated interim financial statements for issue at their meeting held on 25 July 2018.

Amounts contained in these condensed consolidated interim financial statements are expressed in thousands of Euros.

The condensed consolidated interim financial statements of Grifols for the six-month period ended 30 June 2018 have been prepared based on the accounting records maintained by the Group. We also have included for information purposes the three-month period ended 30 June 2018.

Accounting principles and basis of consolidation applied

Except as noted below, the accounting principles and basis of consolidation applied in the preparation of these condensed consolidated interim financial statements are the same as those applied by the Group in its consolidated annual accounts as at and for the year ended 31 December 2017.

In addition, in 2018 the following standards issued by the IASB and the IFRS Interpretations Committee, and adopted by the European Union for their application in Europe have become effective and,

(2) Basis of Presentation and Accounting Principles Applied (Continued)

accordingly, have been taken into account for the preparation of these condensed consolidated interim financial statements:

Standards		Mandatory application for annual periods beginning on or after: EU effective date	Mandatory application for annual periods beginning on or after: IASB effective date
IFRS 15	Revenue from contracts with Customers (issued on 28 May 2014)	1 January 2018	1 January 2018
IFRS 15	Clarification to IFRS15 Revenue from Contracts with Customers (issued on 12 April 2016)	1 January 2018	1 January 2018
IFRS 9	Financial instruments (issued on 24 July 2014)	1 January 2018	1 January 2018
IFRS 2	Classification and Measurement of Share-based Payment Transactions (issued on 20 June 2016)	1 January 2018	1 January 2018
IFRS 4			
IFRS 9	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts (issued on 12 September 2016)	1 January 2018	1 January 2018
IFRIC 22	IFRIC 22 Interpretation: Foreign currency translations and Advance Consideration	1 January 2018	1 January 2018
IAS 40	Amendments to IAS 40: Transfers of Investment Property	1 January 2018	1 January 2018
Various	Annual improvements to IFRSs 2014 - 2016 cycle (issued on 8 December 2016)	1 January 2018	1 January 2018

The application of this standards and interpretations have had some impacts in this condensed consolidated interim financial statements, which are summarized below.

IFRS 9 "Financial Instruments"

IFRS 9 Financial Instruments has been applied starting January 1, 2018 without restating the 2017 information used for the purposes of comparison. The impacts of this first application, which have been taken directly to equity, are as follows:

- Classification and measurement of financial assets:

In general terms, based on the analysis of the new classification vis-à-vis the business model, the majority of financial assets have continued to be measured at amortized cost with changes through profit or loss, the main exception being equity instruments, which are measured at fair value.

- Impairment of financial assets:

For trade receivables the Group uses the simplified approach, estimating lifetime expected credit losses, while for all other financial assets the Group uses the general approach for calculating expected credit losses. In both cases, due to the customers' credit rating, as well as the internal classification systems currently in place for new customers, and considering that collection periods are mostly under 30 days, the adoption of IFRS 9 does not have a significant impact.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

- Modification or exchanges of financial liabilities that do not result in derecognition of liabilities

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the modified cash flows, discounted at the original effective interest rate of the liability.

IFRS 9 must be applied retrospectively as of 1 January 2018, therefore any gains or losses from the modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 have been recognized in reserves at that date and comparative figures have not been restated. Grifols has retrospectively calculated the impact of adopting IFRS 9 on the refinancing of its senior debt and unsecured senior corporate bonds in 2014 and 2017. As a result of these new calculations, the 2014 refinancing of both debts did not cause the derecognition of the respective liabilities, therefore generating an adjustment to profit and loss in that year. Considering the retroactive adjustment generated in 2014, the 2017 refinancing of senior debt did not result in the derecognition of the financial liability either. However, the refinancing of unsecured senior corporate notes did cause the derecognition of the liability as it did not pass the new quantitative test. The adoption of IFRS 9 entails a positive impact on reserves of Euros 24,636 thousand.

Detail of the impact on reserves due to the application of IFRS 9 is as follows:

	Thousand of Euros		
Senior Unsecured Notes	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	853,667	1,000,000	146,334
Deferred Expenses			(41,036)
Negative Impact on reserves			105,298

	Thousand of Euros		
Senior Secured Debt	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	3,375,157	3,226,244	(148,913)
Deferred Expenses			18,979
Positive impact on reserves			(129,934)

	Thousand of Euros		
Total Impact	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	4,228,823	4,226,244	(2,579)
Deferred Expenses			(22,056)
Positive impact on reserves			(24,636)

IFRS 15 "Revenue from Contracts with Customers"

IFRS 15 provides a framework that replaces the previous guides on revenue recognition. According to the new criteria, a five-step model should be used to determine the timing and amounts of revenue recognition:

Step 1: Identify the contract.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognize revenue.

This new model specifies that revenue should be recognized when (or as) control of the goods or services is transferred from an entity to customers and, for the amount the entity expects to be entitled to receive. Depending on whether certain criteria are met, revenue is recognized over time, reflecting that the entity has satisfied the performance obligation, or at a point in time, when control of the goods or services is transferred to customers.

Based on the analysis and implementation at 1 January 2018, there has been no impact from adopting IFRS 15 Revenue from Contracts with Customers.

Under IFRS 15, entities may adopt the new standard retrospectively or through an adjustment for the accumulated effect at the start of the first year it is applicable. Grifols has opted for the accumulated effect approach as it deems the impact to be immaterial to the financial statements taken as a whole.

At the date these condensed consolidated interim financial statements were authorized for issue, the following IFRS standards, amendments and IFRIC interpretations have been issued by the European Union but their application is not mandatory until future periods as described below:

Standards		Mandatory application for annual periods beginning on or after: EU effective date	Mandatory application for annual periods beginning on or after: IASB effective date
IFRS 16	Leases (Issued on 13 January 2016)	1 January 2019	1 January 2019
IFRS 9	Prepayment Features with negative Compensation (issued on 12 October 2017).	1 January 2019	1 January 2019
IAS 28	Long-term Interests in Associates and Joint Ventures (issued on 12 October 2017).	pending	1 January 2019
Various	Annual improvements to IFRS Standards 2015- 2017 Cycle (issued on 12 December 2017).	pending	1 January 2019
IAS 19	Plan Amendment, Curtailment or Settlement (issued on 7 February 2018).	pending	1 January 2019
IFRIC 23	Uncertainty over Income Tax Treatments (issued on 7 June 2017)	pending	1 January 2019
Various	Amendments to references to the Conceptual Framework in IFRS Standards (issued on 29 March 2018).	pending	1 January 2020
IFRS 17	Insurance Contracts (issued on 18 May 2017)	pending	1 January 2021

The Group has not applied any of the standards or interpretations issued prior to their effective date.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

At the date these condensed consolidated interim financial statements were authorized for issue, the Group is analyzing the impact of the application of the above standards or interpretations published by the European Union (EU).

The Group is currently in the process of evaluating the impacts of the application of IFRS16.

Responsibility regarding information, estimates, and relevant judgments in the application of accounting policies

The information contained in these condensed consolidated interim financial statements for the six-month period ended 30 June 2018 is the responsibility of the Directors of the Parent. The preparation of the condensed consolidated interim financial statements requires management to make judgements, estimates and assumptions that affect the application of Group accounting policies. The following notes include a summary of the relevant accounting estimates and judgements used to apply accounting policies which have the most significant effect on the amounts recognised in these condensed consolidated interim financial statements.

- Assumptions used to test non-current assets and goodwill for impairment. Relevant cash generating units are tested annually for impairment. These are based on risk-adjusted future cash flows discounted using appropriate interest rates. Assumptions relating to risk-adjusted future cash flows and discount rates are based on business forecasts and are therefore inherently subjective. Future events could cause a change in business forecasts, with a consequent adverse effect on the future results of the Group. To the extent considered that a reasonably possible change in key assumptions could result in impairment of goodwill, a sensitivity analysis has been disclosed in note 7 of the consolidated financial statements as at and for the year ended 31 December 2017 to show the effect of changes to these assumptions and the effect of the cash generating unit (CGU) on the recoverable amount.
- Determination of the fair value of assets, liabilities and contingent liabilities related to business combinations.
- Evaluation of the capitalization of development costs. The key assumption is related to the estimation of sufficient future economic benefits of the projects.
- Evaluation of provisions and contingencies. Key assumptions relate to the evaluation of the likelihood of an outflow of resources due to a past event, as well as to the evaluation of the best estimate of the likely outcome. These estimates take into account the specific circumstances of each dispute and relevant external advice and therefore are inherently subjective and could change substantially over time as new facts arise and each dispute progresses. Details of the status of various uncertainties involved in significant unresolved disputes are set out in note 16.
- Evaluation of the recoverability of tax credits, including tax loss carryforwards and rights for deductions. Deferred tax assets are recognized to the extent that future taxable profits will be available against which the temporary differences can be utilized, based on management's assumptions relating to the amount and timing of future taxable profits.

No changes have been made to prior year judgements relating to existing uncertainties.

The Group is also exposed to interest rate and currency risks.

Grifols' management does not consider that there are any assumptions or causes for uncertainty in the estimates which could imply a significant risk of material adjustments arising in the next financial year.

(2) Basis of Presentation and Accounting Principles Applied (Continued)

The estimates and relevant judgments used in the preparation of these condensed consolidated interim financial statements do not significantly differ from those applied in the preparation of the consolidated financial statements as at and for the year ended 31 December 2017.

Seasonality of transactions during this period

Given the nature of the activities conducted by the Group, there are no factors that determine any significant seasonality in the Group's operations that could affect the interpretation of these condensed consolidated interim financial statements for the six-month period ended 30 June 2018 in comparison with the financial statements for a full fiscal year.

Relative importance

When determining the information to be disclosed in these Notes, in accordance with IAS 34, the relative importance in relation to these condensed consolidated interim financial statements has been taken into account.

(3) Changes in the composition of the Group

For the preparation of its condensed consolidated interim financial statements, the Group has included its investments in all subsidiaries, associates and joint ventures. Appendix I of the consolidated financial statements as at 31 December 2017 lists the subsidiaries, associates and joint ventures in which Grifols, S.A. holds a direct or indirect stake and that were included in the scope of consolidation at that date.

The main changes in the scope of consolidation during the interim period ended 30 June 2018 are detailed below:

- Haema AG

On 19 March 2018 Grifols entered into agreement with Aton GmbH for the purchase of 100% of the shares of German_based pharmaceutical company Haema AG ("Haema), in exchange for a purchase price of Euros 220 million on a debt free basis. The closing date of the transaction was in June 2018.

With this acquisition, Grifols acquires the business currently held by Haema (collection of plasma for fractionation) which includes 35 collection centers throughout Germany, and three more under construction. Its headquarters are located in Leipzig and occupy approximately 24,000m^2 (which include administration, production, storage and power station buildings) and it also has a central laboratory in Berlin.

Haema AG employs about 1,100 people and collected almost 800,000 liters of plasma in the preceding financial year, coming from approximately 1 million donations.

At the date of publication of these condensed consolidated interim financial statements, taking into account that the transaction is recent and not all the information necessary to adequately determine the fair value of the assets, liabilities and contingent liabilities is available, the Group has not made any fair value adjustments. According to the latest available financial statements, the net assets acquired amounted to 46,871 thousand euros.

If the acquisition had taken place on January 1, 2018, the net amount of the Group's net revenues would have increased by 31,871 thousand euros and the consolidated profit for the year would have increased by 639 thousand euros.

(3) Changes in the composition of the Group (Continued)

- Goetech, LLC. ("MedKeeper")

On 26 January 2018 Grifols has subscribed, through its subsidiary Grifols Shared Services North America, Inc., a capital increase in the amount of US Dollars 98 million in the U.S. company Goetech, LLC. based in Denver, Colorado, as the trading name of which is MedKeeper. As a result, Grifols holds a 54% interest in MedKeeper and holds a majority position on the board of directors.

The business acquisition agreements include the repurchase of own shares by MedKeeper to the non-controlling shareholder in the amount of 14 million dollars (in 2 business days) and 20 million dollars (in 2 years). The commitment grants a call option to Grifols to acquire the remaining non-controlling stake for a term of three years and the non-controlling interest has a put option to sale to Grifols such stake, that may be executed at the end of the three-year period.

As the non-controlling shareholders do not have present access to the economic benefits associated with the underlying ownership interests related to shares under the put and call commitment, we have applied the anticipated-acquisition method. Under this method we recognize the contract as an anticipated acquisition of the underlying non-controlling interest, as if the put option had been exercised already by the non- controlling shareholders.

Medkeeper's core business is the development and commercialization of web and mobile-based platforms for hospital pharmacies that improve quality standards, productivity in the processes, control systems and monitoring different preparations while increasing patient safety.

This investment will enhance the activity of the Grifols Hospital Division and it is part of the strategy to underpin this division into the U.S. market.

Details of the aggregate business combination cost, provisional fair value of the net assets acquired and provisional goodwill at the acquisition date (or excess of the cost of the business combination over the fair value of identifiable net assets acquired) are shown below. The values shown in the table below should therefore be considered as provisional amounts.

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
First repurchase of non-controlling interests	11,475	14,000
Second repurchase of non-controlling interests	14,952	18,241
Purchase of remaining non-controlling interests	42,865	52,295
Total business combination cost	69,292	84,536
Fair value of net assets acquired	15,458	18,857
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	53,834	65,679

(3) Changes in the composition of the Group (Continued)

At the date of acquisition, the values of recognized assets, liabilities and contingent liabilities are as follows:

	Fair Value	
	Thousands of Euros	Thousands of US Dollars
Other Intangible assets	32,399	39,527
Property, plant and equipment	67	82
Other non current assets	2,350	2,867
Current assets	4,453	5,433
Total Assets	39,270	47,909
Non-current liabilities	2,186	2,667
Deferred Tax Liabilities	8,188	9,989
Other current liabilities	13,438	16,396
Total liabilities and contingent liabilities	23,812	29,052
Total net assets acquired	15,458	18,857

- Plamavita Healthcare GmbH

In 2017, Grifols established PLASMAVITA GmbH, a joint venture between Grifols (50%) and two European partners (50%). The company aims to establish at least 10 plasma centers in Germany. The share capital amounts to 25,000 euros, divided into 25,000 nominal shares of 1 euro each, subscribed by both parties at 12,500 euros each. In addition, Grifos contributes an amount of 10 million euros, which can be increased by an additional 10 million euros, which will be used to finance the project.

- Aigües Minerals de Vilajuïga, S.A.

On 1 June 2017 the Group announced the acquisition of 50% of the voting rights in Aigües Minerals de Vilajuïga, S.A. a company based in Vilajuïga, Girona, Spain.

On 12 January 2018 the group has acquired the remaining 50% of the voting rights and consequently Grifols holds the 100% of the voting rights for a total amount of Euros 550 thousand.

The principal business activity of Aigües Minerals de Vilajuïga, S.A. is the collection and use of mineral-medicinal waters and achievement of all necessary administrative concessions in order to facilitate their industrial extraction and find the best way to exploit them.

(4) Financial Risk Management Policy

At 30 June 2018 the Group's financial risk management objectives and policies are consistent with those disclosed in the consolidated financial statements for the year ended 31 December 2017.

(5) Segment Reporting

The distribution by business segments of the Group's net revenues for the three- and six-month periods ended 30 June 2018 and 30 June 2017 is as follows:

	Net revenues (Thousands of Euros)			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Segments				
Bioscience	1,689,875	1,759,852	882,334	906,213
Hospital	58,734	50,610	31,419	26,709
Diagnostic	339,432	365,014	174,501	189,880
Bio supplies	40,124	32,073	13,968	17,671
Other	11,578	1,606	7,133	1,573
Intersegments	(19,625)	(16,708)	(12,249)	(11,279)
Total Revenues	2,120,118	2,192,447	1,097,106	1,130,767

The distribution by geographical area of the Group's net revenues for the three- and six-month periods ended 30 June 2018 and 30 June 2017 is as follows:

	Net revenues (Thousands of Euros)			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Geographical area				
Spain	127,584	119,686	67,905	67,430
Rest of the EU	241,623	218,602	122,198	109,111
USA + Canada	1,412,542	1,494,131	732,929	765,561
Rest of the World	338,369	360,028	174,074	188,665
Total Revenues	2,120,118	2,192,447	1,097,106	1,130,767

(5) Segment Reporting (Continued)

The distribution by business segments of the Group's consolidated income for the three- and six-month periods ended 30 June 2018 and 30 June 2017 is as follows:

	Profit/(loss) (Thousands of Euros)			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Segments				
Bioscience	451,175	500,011	237,817	251,057
Hospital	(7,385)	(11,008)	(4,125)	(6,097)
Diagnostic	102,413	135,619	51,567	74,502
Bio supplies	23,977	18,352	7,629	10,379
Other	16,814	(11,966)	7,649	(4,905)
Intersegments	(5,257)	(4,159)	(2,043)	(3,238)
Total income of reported segments	581,737	626,849	298,494	321,698
Unallocated expenses plus net financial result	(184,412)	(246,890)	(80,106)	(124,938)
Profit before income tax from continuing operations	397,325	379,959	218,388	196,760

As a result of the creation of the new Bio Supplies segment and intersegments in 2017, the Group reviewed the allocation of transactions by segments. The comparative figures for the six- and three-month periods ended 30 June 2017 have been restated accordingly.

(6) Goodwill

Details and movement in goodwill during the six month period ended 30 June 2018 is as follows:

		Thousands of Euros			
	Segment	Balance at 31/12/2017	Business Combination	Translation differences	Balance at 30/06/2018
Net value					
Grifols UK.Ltd. (UK)	Bioscience	7,745	—	10	7,755
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	6,118
Biomat USA, Inc.(USA)	Bioscience	205,254	—	5,898	211,152
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,543	—	(163)	9,380
Grifols Therapeutics, Inc. (USA)	Bioscience	1,852,905	—	53,244	1,906,149
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	40,516
Grifols Diagnostic (Novartis & Hologic) (USA, Spain and Hong Kong)	Diagnostic	2,435,907	—	69,261	2,505,168
Kiro Grifols S.L. (Spain)	Hospital	26,510	(2,134)	—	24,376
Goetech, LLC. (USA)	Hospital	—	53,834	2,503	56,337
Haema AG (Germany)	Bio Supplies	—	220,191	—	220,191
		4,590,498	271,891	130,753	4,993,142

(6) Goodwill (Continued)

Impairment testing:

As a result of the acquisition of Talecris in 2011, and for impairment testing purposes, the Group combines the CGUs allocated to the Bioscience segment, grouping them together at segment level, because substantial synergies were expected to arise on the acquisition of Talecris, and due to the vertical integration of the business and the lack of an independent organized market for the products. Because the synergies benefit the Bioscience segment globally they cannot be allocated to individual CGUs. The Bioscience segment represents the lowest level to which goodwill is allocated and is subject to control by Group management for internal control purposes.

As a result of the acquisition of Novartis' Diagnostic business unit in 2014, the Group decided to combine Araclon, Progenika, Australia and the recent acquisition of Hologic's share of NAT donor screening unit into a single CGU for the Diagnostic business, as the acquisition is supporting not only the vertical integration of the business but also cross-selling opportunities. In addition, for management purposes, the Group's management is focused more on the business than on geographical areas or individual companies.

Due to the acquisition of an additional 40% stake of Kiro Grifols S.L., the Group has decided to group Kiro Grifols S.L. and Laboratorios Grifols S.L. into a single CGU for the Hospital business since the acquisition is supporting cross-selling opportunities.

The Group has not identified any triggering event that would make it necessary to test any of the CGUs for impairment for the six-month period ended 30 June 2018.

(7) Other Intangible Assets and Property, Plant, and Equipment

Movement of other intangible assets and property, plant and equipment during the six-month period ended 30 June 2018 is as follows:

	Thousands of Euros		
	Other intangible assets	Property, plant and equipment	Total
Total Cost at 31/12/2017	1,841,207	2,640,332	4,481,539
Total depreciation and amortization at31/12/2017	(508,485)	(877,547)	(1,386,032)
Impairment at 31/12/2017	(63,380)	(2,732)	(66,112)
Balance at 31/12/2017	1,269,342	1,760,053	3,029,395
Cost			
Additions	37,005	97,795	134,800
Business combination (note 3)	35,245	190	35,435
Disposals	(60)	(7,724)	(7,784)
Transfers	(909)	909	—
Translation differences	48,269	52,861	101,130
Total Cost at 30/06/2018	1,960,757	2,784,363	4,745,120
Depreciation & amortization			
Additions	(33,649)	(74,309)	(107,958)
Business combination (note 3)	—	(63)	(63)
Disposals	24	6,614	6,638
Transfers	(38)	38	—
Translation differences	(10,911)	(17,122)	(28,033)
Total depreciation and amortization at30/06/2018	(553,059)	(962,389)	(1,515,448)
Impairment			
Additions	—	(1)	(1)
Translation differences	(1,791)	48	(1,743)
Impairment at 30/06/2018	(65,171)	(2,685)	(67,856)
Balance at 30/06/2018	1,342,527	1,819,289	3,161,816

At 30 June 2018 there are no indications that these assets have been impaired.

Intangible assets acquired from Talecris mainly include currently marketed products. Identifiable intangible assets correspond to Gamunex and have been recognised at fair value at the acquisition date of Talecris and classified as currently marketed products. Intangible assets recognised comprise the rights on the Gamunex product, its commercialisation and distribution license, trademark, as well as relations with hospitals. Each of these components are closely linked and fully complementary, are subject to similar risks and have a similar regulatory approval process.

Intangible assets acquired from Progenika mainly include currently marketed products. Identifiable intangible assets correspond to blood, immunology and cardiovascular genotyping. These assets have been recognised at fair value at the acquisition date of Progenika and classified as currently marketed products.

(7) Other Intangible Assets and Property, Plant, and Equipment (Continued)

The cost and accumulated amortisation of currently marketed products acquired from Talecris and Progenika at 30 June 2018 is as follows:

	Thousands of Euros			
	Balance at 31/12/2017	Additions	Translation differences	Balance at 30/06/2018
Cost of currently marketed products—Gamunex	1,000,584	—	28,752	1,029,336
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(219,572)	(16,487)	(6,979)	(243,038)
Accumulated amortisation of currently marketed products—Progenika	(11,496)	(1,190)	—	(12,686)
Net carrying amount of currently marketed products	793,308	(17,677)	21,773	797,404

The estimated useful life of the currently marketed products acquired from Talecris is considered limited, has been estimated at 30 years on the basis of the expected life cycle of the product (Gamunex) and is amortized on a straight-line basis.

At 30 June 2018 the residual useful life of currently marketed products from Talecris is 22 years and 11 months (23 years and 11 months at 30 June 2017).

The estimated useful life of the currently marketed products acquired from Progenika is considered limited, has been estimated at 10 years on the basis of the expected life cycle of the product and is amortized on a straight- line basis.

At 30 June 2018 the residual useful life of currently marketed products from Progenika is 4 years and 8 months (5 years and 8 months at 30 June 2017).

(8) Financial Assets

Details of non-current financial assets on the consolidated balance sheet at 30 June 2018 and 31 December 2017 are as follows:

	Thousands of Euros	
	30/06/2018	31/12/2017
Non-current derivatives (b)	—	8,338
Non-current investments in quoted shares (a)	507	38,708
Total Non-current financial assets measured at fair value	507	47,046
Non-current guarantee deposits	5,674	4,820
Other non-current financial assets	1,974	1,346
Non-current loans to associates (c)	30,293	16,677
Total Non-current financial assets at amortized cost	37,941	22,843

(8) Financial Assets (Continued)

Details of other current financial assets on the consolidated balance sheet at 30 June 2018 and 31 December 2017 are as follows:

	Thousands of Euros	
	30/06/2018	31/12/2017
Current derivatives (b)	8,578	—
Total Current financial assets measured at fair value	8,578	—
Deposits and guarantees	428	702
Current loans to third parties	49	59
Current loans to associates	12,004	9,977
Total other current financial assets at amortized cost	12,481	10,738

(a) Non-current investment in quoted shares

Within the framework of its integrated R&D&i strategy, which evaluates the adequacy of various projects, Grifols made the decision to disinvest in TiGenix and entered the public offer made by Takeda in the first half of 2018. This disinvestment has generated a cash entry of Euros 70.1 million and a positive impact on consolidated profit and loss of Euros 32 million (see note 13).

(b) Derivatives

On June 2018, current derivatives include a call option on the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. units that are not owned by the Group. The call option can be exercised by the Group by providing written notice of its intention at any time on or after 1 February 2019 and on or before 30 April 2019.

(c) Non-current loans to associates

On 2 October 2017 the Group's subsidiary Grifols Diagnostic Solutions, Inc. subscribed notes for an amount of US Dollars 20,000 thousand (Euros 16,676 thousand) issued by Singulex, Inc., that bear at an interest rate of 5% and mature on 19 September 2019. In the first half of 2018, the Group's subsidiary Grifols Diagnostic Solutions, Inc. has subscribed additional notes for an amount of US Dollars 12,339 thousand (Euros 11,063 thousand). The Group indirectly owns 19.33% of the common stock of Singulex Inc.

(9) Trade and Other Receivables

At 30 June 2018, certain companies of the group had signed sales agreements for credit receivables without recourse with certain financial institutions.

The total sum of credit receivables sold without recourse, for which ownership was transferred to financial institutions pursuant to the aforementioned agreements, amounts to Euros 520,066 thousand for the six-month period ended 30 June 2018 (Euros 446,820 thousand for the six-month period ended 30 June 2017 and Euros 912,204 thousand for the year ended 31 December 2017).

The deferred collection equivalent to the amount receivable from a financial institution is presented on the balance sheet under "Other receivables" for an amount of Euros 1,081 thousand as at 30 June 2018 (Euros 1,800 thousand as at 31 December 2017) which does not differ significantly from their fair value and is also equal to the amount of the maximum exposure to loss.

(9) Trade and Other Receivables (Continued)

The finance cost of receivables sold amounts to Euros 1,935 thousand for the six-month period ended 30 June 2018 (Euros 1,908 thousand for the six-month period ended 30 June 2017) (see note 13).

(10) Equity

Details of consolidated equity and changes are shown in the condensed consolidated statement of changes in equity, which forms an integral part of the condensed consolidated interim financial statements.

(a) Share capital and share premium

At 30 June 2018 and 31 December 2017, the Company's share capital amounts to Euros 119,603,705 and comprises:

- Class A shares: 426,129,798 ordinary shares of Euros 0.25 par value each, subscribed and fully paid and ofthe same class and series.
- Class B shares: 261,425,110 non-voting preference shares of 0.05 Euros par value each, of the same class and series, and with the preferential rights set forth in the Company's by-laws.

(b) Reserves

The availability of the reserves for distribution is subject to legislation applicable to each of the Group companies. At 30 June 2018, Euros 30,014 thousand equivalent to the carrying amount of development costs pending amortization of certain Spanish companies (Euros 40,061 thousand at 31 December 2017) are, in accordance with applicable legislation, restricted reserves which cannot be distributed until these development costs have been amortized.

Companies in Spain are obliged to transfer 10% of each year's profits to a legal reserve until this reserve reaches an amount equal to 20% of share capital. This reserve is not distributable to shareholders and may only be used to offset losses if no other reserves are available. Under certain conditions it may be used to increase share capital provided that the balance left on the reserve is at least equal to 10% of the nominal value of the total share capital after the increase.

At 30 June 2018 and 31 December 2017 the legal reserve of the Parent amounts to Euros 23,921 thousand.

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the modified cash flows, discounted at the original effective interest rate of the liability. Due to the retrospective effect of IFRS 9, any gains or losses from the modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 have been recognized in reserves, generating a positive net impact of Euros 24,636 thousand.

On June 2018, Grifols made the decision to disinvest in TiGenix and entered the public offer made by Takeda in the first half of 2018. This disinvestment has generated a positive impact on reserves of Euros 4.9 million and a negative impact of Euros 4.9 million in "Other comprehensive income".

(10) Equity (Continued)

(c) Treasury stock

At 30 June 2018 and 30 June 2017 the Company does not have Class A treasury stock.

Movement in Class B treasury stock during the six-month period ended 30 June 2018 is as follows:

	No. of Class B shares	Thousands Euros
Balance at 1 January 2018	4,297,806	62,422
Disposals Class B shares	(480,661)	(6,981)
Balance at 30 June 2018	3,817,145	55,441

In March 2018 the Group delivered 480,661 treasury stocks (Class B shares) to eligible employees as compensation for the Restricted Share Unit Retention Plan (see note 16 (b)).

Movement in Class B treasury stock during the six-month period ended 30 June 2017 is as follows:

	No. of Class B shares	Thousands Euros
Balance at 1 January 2017	4,730,735	68,710
Disposals Class B shares	(432,929)	(6,288)
Balance at 30 June 2017	4,297,806	62,422

In March 2017 the Company delivered 432,929 treasury stocks (Class B shares) to eligible employees as compensation for the Restricted Share Unit Retention Plan (see note 16 (b)).

(d) Distribution of profits

The profits of Grifols, S.A. and subsidiaries will be distributed as agreed by the respective shareholders at their general meetings and the proposed distribution of profit for the year ended 31 December 2017 is presented in the consolidated statement of changes in equity.

Dividends paid during the six-month period ended 30 June 2018 are as follows:

	Six-Months Ended 30 June 2018		
	% over par value	Euros per shares	Amount in thousands of Euros
Ordinary Shares	82%	0.20	86,929
Non-voting shares	408%	0.20	52,551
Non-voting shares (Preferred Dividend)	20%	0.01	2,614
Total Dividends Paid			142,094

Dividends paid during the six-month period ended 30 June 2017 were as follows:

	Six-Months Ended 30 June 2017		
	% over par value	Euros per shares	Amount in thousand of Euros
Ordinary Shares	54%	0.14	57,790
Non-voting shares	271%	0.14	34,870
Non-voting shares (Preferred Dividend)	20%	0.01	2,614
Total Dividends Paid			95,274

(10) Equity (Continued)

(e) Restricted Share Unit Compensation

The Group has set up a Restricted Share Unit Retention Plan (hereinafter RSU) for certain employees (see note 16 (b)). This commitment is settled using equity instruments and the cumulative accrual amounts to Euros 12,090 thousand in June 2018 (Euros 11,901 thousand in June 2017).

(11) Financial Liabilities

Detail of financial liabilities at 30 June 2018 and 31 December 2017 is as follows:

	Thousands of Euros	
Financial liabilities	**30/06/2018**	**31/12/2017**
Non-current obligations (a)	1,000,000	853,667
Senior secured debt (b)	4,773,729	4,849,882
Other loans	167,291	169,214
Finance lease liabilities	5,865	5,415
Other non-current financial liabilities	76,862	23,637
Total non-current financial liabilities	6,023,747	5,901,815
Current obligations (a)	100,427	95,538
Senior secured debt (b)	64,474	4,057
Other loans	23,856	29,527
Finance lease liabilities	3,891	3,945
Other current financial liabilities	12,447	22,003
Total current financial liabilities	205,095	155,070

On 6 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounted to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consists of a US Dollars 6,000 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total bond issuance amounted to Euros 1,000 million.

On 5 December 2017 the Group received an additional loan from the European Investment Bank of up to Euros 85 million at a fixed interest rate for a period of ten years with a grace period of two years. The loan will be used to support certain investments in R&D which are mainly focused on searching for new applications for plasmatic proteins. On 28 October 2015, the Group arranged its first loan with the same entity, with the same conditions and for a total amount of Euros 100 million.

Retrospectively as of 1 January 2018, Grifols has calculated the impact of the entry into force of the new IFRS 9 on the refinancing process of the Senior Unsecured Notes and the Senior debt, concluding that the notes did cause a derecognition of the liability as they did not pass the new quantitative test, whereas the senior debt did not result in a derecognition of the liability.

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the modified cash flows, discounted at the original effective interest rate of the liability. Due to the retrospective effect of the IFRS 9, any gains or losses from the

(11) Financial Liabilities (Continued)

modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 have been recognized in reserves, generating a positive net impact of Euros 24,636 thousand.

(a) Senior Unsecured Notes

On 18 April 2017, Grifols, S.A. issued Euros 1,000 million of Senior Unsecured Notes (the "Notes") that will mature in 2025 and will bear an annual coupon of 3.20%. These notes have been exchanged with 97.1% of the Senior Unsecured Notes issued in 2014 by Grifols Worldwide Operations Limited, a wholly-owned subsidiary of Grifols, S.A., amounting to US Dollars 1,000 million, with a maturity in 2022 and at an interest rate of 5.25%, which were owned by a financial institution. The remaining 2.9% of the existing notes was redeemed prior to the refinancing by an amount of Euros 26,618 thousand. The corresponding deferred costs of the redeemed Notes were taken to profit and loss. On 2 May 2017 the Notes were admitted to listing on the Irish Stock Exchange.

The total principal plus interest of the Senior Unsecured Notes to be paid is detailed as follows:

	Senior Unsecured Notes
	Principal+Interest in Thousands of Euros
Maturity	
2018	16,000
2019	32,000
2020	32,000
2021	32,000
2022	32,000
2023	32,000
2024	32,000
2025	1,016,000
Total	1,224,000

(b) Senior Secured Debt

On 6 February 2017 the Group refinanced its Senior Secured Debt with the existing lenders and obtained the additional debt for the acquisition of Hologic for an amount of US Dollars 1,816 million. The new senior debt consists of a Term Loan A ("TLA"), which amounts to US Dollars 2,350 million and Euros 607 million with a 1.75% margin over Libor and Euribor respectively, with maturity in 2023 and quasi-bullet repayment structure, and a Term Loan B ("TLB") amounting to US Dollars 3,000 million with a 2.25% margin over Libor and maturity in 2025. The borrowers of the total senior debt are Grifols Worldwide Operations Limited and Grifols, S.A. for the Term Loan A and Grifols Worldwide Operations USA, Inc. for the Term Loan B.

The discounted present value of cash flows under the refinanced agreement, including any fees paid and discounted using the original effective interest rate, differs by less than 10% of the discounted present value of cash flows remaining in the original debt, whereby it is considered that the debt instrument has not been substantially modified.

The costs of refinancing the senior debt amounted to Euros 84.8 million. Based on the analysis of the quantitative and qualitative factors, the Group has concluded that the renegotiation of conditions of the senior debt does not trigger a derecognition of the liability. The difference between the amortized cost of the debt applying the new IFRS 9 is 325,753 thousand euros less than its nominal value.

(11) Financial Liabilities (Continued)

The terms and conditions of the senior secured debt are as follows:

- **Tranche A:** six year loan divided into two tranches: US Tranche A and Tranche A in Euros.
  - **US Tranche A:**
    - Original principal amount of US Dollars 2,350 million.
    - Applicable margin of 175 basis points (bp) linked to US Libor.
    - Quasi-bullet amortization structure.
    - Maturity in 2023
  - **Tranche A in Euros:**
    - Original principal amount of Euros 607 million.
    - Applicable margin of 175 basis points (bp) linked to Euribor.
    - Quasi-bullet amortization structure.
    - Maturity in 2023

Details of the Tranche A by maturity at 30 June 2018 are as follows:

	US Tranche A			Tranche A in Euros	
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros	Currency	Principal in thousands of Euros
2019	US Dollars	117,500	100,789	Euros	30,350
2020	US Dollars	235,000	201,578	Euros	60,700
2021	US Dollars	235,000	201,578	Euros	60,700
2022	US Dollars	1,321,875	1.133,878	Euros	341,437
2023	US Dollars	440,625	377,960	Euros	113,813
Total	US Dollars	2,350,000	2,015,783	Euros	607,000

- **Tranche B:** Senior Debt Loan repayable in eight years.
  - **US Tranche B :**
    - Original principal amount of US Dollars 3,000 million.
    - Applicable margin of 225 basis points (bp) linked to US Libor.
    - Quasi-bullet amortization structure.
    - Maturity in 2025

(11) Financial Liabilities (Continued)

Details of the Tranche B by maturity at 30 June 2018 are as follows:

		US Tranche B	
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros
2018	US Dollars	15,000	12,867
2019	US Dollars	30,000	25,733
2020	US Dollars	30,000	25,733
2021	US Dollars	30,000	25,733
2022	US Dollars	30,000	25,733
2023	US Dollars	30,000	25,733
2024	US Dollars	30,000	25,733
2025	US Dollars	2,767,500	2,373,908
Total	US Dollars	2,962,500	2,541,173

- **US Dollar 300 million committed credit revolving facility:** Amount maturing on 2023 and applicable margin of 175 basis points (bp) linked to US Libor. At 30 June 2018 no amount has been drawn down on this facility.

The total principal plus interest of Tranches A & B Senior Loan is as follows:

	Thousands of Euros	
Maturity	Tranche A Senior Loan	Tranche B Senior Loan
2018	42,473	65,990
2019	216,482	133,725
2020	341,856	132,916
2021	332,931	131,518
2022	1,515,932	130,415
2023	493,159	129,312
2024	—	128,490
2025	—	2,382,553
Total	2,942,833	3,234,919

The issue of Senior Unsecured Notes and Senior Secured Debt is subject to compliance with the leverage ratio covenant. At 30 June 2018 the Group complies with this covenant.

Both the Senior Term Loans and the Revolving Loans are secured by Grifols, S.A. and certain significant subsidiaries of Grifols, S.A., which together with Grifols, S.A., represent, in the aggregate, at least 80% of the consolidated assets and consolidated EBITDA of the Group.

The Notes have been issued by Grifols, S.A. and are secured on a senior unsecured basis by subsidiaries of Grifols, S.A. that are guarantors and co-borrowers under the New Credit Facilities. The Guarantors are Grifols Worldwide Operations Limited, Biomat USA, Inc., Grifols Biologicals Inc., Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics, Inc., Instituto Grifols, S.A. Grifols Worldwide Operations USA, Inc. and Grifols USA, Llc.

(12) Expenses by Nature

Details of wages and other employee benefits expenses by function are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Cost of sales	382,536	368,263	189,856	186,343
Research and development	46,149	45,050	22,811	22,954
Selling, general & administrative expenses	166,944	165,879	83,775	83,348
	595,629	579,192	296,442	292,645

Details of amortisation and depreciation expenses by function are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Cost of sales	68,650	68,142	35,232	34,087
Research and development	9,568	7,062	4,978	3,600
Selling, general & administrative expenses	29,740	31,345	14,865	15,548
	107,958	106,549	55,075	53,235

(13) Finance Result

Details are as follows:

	Thousands of Euros			
	Six-Months Ended 30 June 2018	Six-Months Ended 30 June 2017	Three-Months Ended 30 June 2018	Three-Months Ended 30 June 2017
			Not reviewed	Not reviewed
Finance income	7,049	4,164	4,107	2,152
Finance cost from Senior Unsecured Notes	(17,569)	(38,221)	(8,913)	(19,081)
Finance cost from Senior debt	(112,958)	(96,205)	(59,744)	(50,008)
Finance cost from sale of receivables (note 9)	(1,935)	(1,908)	(1,100)	(943)
Capitalised interest	3,972	5,429	1,945	2,676
Other finance costs	(7,424)	(4,582)	(3,494)	(2,137)
Finance costs	(135,914)	(135,487)	(71,306)	(69,493)
Impairment financial instruments (note 8)	31,116	(5,500)	31,116	—
Exchange differences	(5,439)	(10,760)	(3,554)	(14,017)
Finance result	(103,188)	(147,583)	(39,637)	(81,358)

Within the framework of its integrated R & D strategy, which evaluates the adequacy of various projects, Grifols made the decision to disinvest in TiGenix and went to the public offer made by Takeda in the first half of 2018. This disinvestment has generated a cash entry of 70.1 million euros and a positive impact in the consolidated profit & loss of 32 million euros.

(14) Taxation

Income tax expense is recognised based on management's best estimate of the weighted average annual income tax rate expected for the full financial year applied to the pre-tax income of the interim period. The Group's consolidated effective tax rate has decreased from 27% for the six-month period ended 30 June 2017 to 20% for the six-month period ended 30 June 2018 mainly due to a change of country mix of profits and the change of the tax rate in the United States.

No relevant events have arisen regarding income tax audits during the six-month period ended 30 June 2018.

(15) Discontinued operations

The Group has not discontinued any operations as discontinued for the six-month period ended 30 June 2018 and 2017.

(16) Contingencies and Commitments

(a) Contingencies

Details of legal proceedings in which the Company or Group companies are involved are as follows:

- bioMérieux, S.A., et ano. v. Hologic, Inc. et al., Case No. 1:17-cv-102 (M.D.N.C); Case No. 18-21-LPS-CJB (D. Del.): on February 3, 2017, bioMérieux, S.A and bioMérieux, Inc. filed suit against Hologic, Inc. (''Hologic''), Grifols, S.A. (''GSA''), and Grifols Diagnostic Solutions Inc. (''GDS'') in the U.S. District Court for the Middle District of North Carolina, alleging infringement of U.S. Patent Nos. 8,697,352 and 9,074,262 by virtue of defendants' activities with respect to the Procleix HIV-1/HCV Assay®, Procleix Ultrio Assay®, and Procleix Ultrio Plus® products. Hologic and GDS filed a motion to dismiss for failure to state a claim on April 3, 2017. As a result of a claim of improper venue, the case was transferred to the U.S. District Court for the District of Delaware in early 2018. Hologic and GDS are pursuing defenses of failure to state a claim, non-infringement, invalidity, and that the infringement claims are contractually barred. Additionally, GSA intends to pursue dismissal for lack of personal jurisdiction.
- Enzo Life Sciences, Inc. v. Hologic, Inc. et al., Case No. 1:16-cv-00894-LPS (D. Del.): on October 4, 2016, Enzo Life Sciences, Inc. (''Enzo'') filed suit against Hologic in the U.S. District Court for the District of Delaware, alleging infringement of U.S. Patent No. 6,221,581 by virtue of Hologic's activities with respect to Progensa®, Procleix®, and Aptima® products. On November 9, 2017, the Court granted Enzo's motion to amend its complaint to add GSA and GDS as defendants with respect to the Procleix® products at issue. Hologic and GDS have answered the complaint, alleging non-infringement and invalidity among their defenses. GSA has moved to dismiss for lack of personal jurisdiction. The case schedule has been extended in light of the addition of Grifols-related entities as co-defendants, with Hologic and GDS currently engaged in fact discovery. Trial is scheduled for September 2019.
- Concerning the acquisition in 2014 of the transfusional Dignostic unit and after an internal investigation by the Company, no abnormal commercial or contractual practices have been found.

(b) Commitments

- **Restricted Share Unit Retention Plan**

For the annual bonus, the Group established a Restricted Share Unit Retention Plan (RSU Plan), for eligible employees. By these plans, the employee could elect to receive up to 50% of its yearly bonus in non-voting Class B ordinary shares (Grifols Class B Shares) or Grifols American Depositary Shares

(16) Contingencies and Commitments (Continued)

(Grifols ADS), and the Group will match with an additional 50% of the employee election of RSUs (additional RSUs).

Grifols Class B Shares and Grifols ADS are valued at grant date.

These RSUs will have a vesting period of 2 years and 1 day and, subsequently, the RSU's will be exchanged for Grifols Class B Shares or Grifols ADS (American Depositary Share representing 1 Class B Share).

If an eligible employee leaves the Company or is terminated before the vesting period, he will not be entitled to the additional RSU.

At 30 June 2018, the Group has settled the RSU plan of 2015 for an amount of Euros 9,645 thousand (Euros 7,303 thousand at 30 June 2017 regarding RSU plan of 2014).

This commitment is treated as equity-settled and the accumulated amount recognized as at 30 June 2018 as share based payments costs of employees is Euros 12,090 thousand (Euros 13,871 thousand at December 2017).

(17) Financial Instruments

Classification

Disclosure of financial instruments by nature, category and fair value is as follows:

	Thousands of Euros								
	30/06/2018								
	Carrying amount					Fair Value			
	Financial assets at amortised costs	Financial assets at FVTPL	Financial liabilities at amortised costs	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	507	—	—	507	507	—	—	507
Financial derivatives	—	8,578	—	—	8,578	—	—	8,578	8,578
Financial assets measured at fair value	**—**	**9,085**	**—**	**—**	**9,085**				
Non-current financial assets	37,941	—	—	—	37,941				
Other current financial assets	12,481	—	—	—	12,481				
Trade and other receivables	389,325	—	—	—	389,325				
Cash and cash equivalents	668,499	—	—	—	668,499				
Financial assets not measured at fair value	**1,108,246**	**—**	**—**	**—**	**1,108,246**				
Senior Unsecured Notes	—	—	(1,000,000)	—	(1,000,000)	(981,245)	—	—	(981,245)
Promissory Notes	—	—	(100,427)	—	(100,427)				
Senior secured debt	—	—	(4,838,203)	—	(4,838,203)	—	(5,170,945)	—	(5,170,945)
Other bank loans	—	—	(191,147)	—	(191,147)				
Finance lease payables	—	—	(9,756)	—	(9,756)				
Other financial liabilities	—	—	(89,309)	—	(89,309)				
Non-current debts with associates	—	—	(9,000)	—	(9,000)				
Other non-current debts	—	—	—	(2,043)	(2,043)				
Trade and other payables	—	—	—	(427,194)	(427,194)				
Other current liabilities	—	—	—	(138,591)	(138,591)				
Financial liabilities not measured at fair value	**—**	**—**	**(6,237,842)**	**(567,828)**	**(6,805,670)**				
	1,108,246	**9,085**	**(6,237,842)**	**(567,828)**	**(5,688,339)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(17) Financial Instruments (Continued)

	Thousand of Euros								
	31/12/2017								
	Carrying amount					Fair Value			
	Loans and receivables	Financial instruments held for trading	Available for sale financial assets	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	—	38,708	—	38,708	38,708	—	—	38,708
Financial derivatives	—	8,338	—	—	8,338	—	—	8,338	8,338
Financial assets measured at fair value	**—**	**8,338**	**38,708**	**—**	**47,046**				
Non-current financial assets	22,843	—	—	—	22,843				
Other current financial assets	10,738	—	—	—	10,738				
Trade and other receivables	304,864	—	—	—	304,864				
Cash and cash equivalents	886,521	—	—	—	886,521				
Financial assets not measured at fair value	**1,224,966**	**—**	**—**	**—**	**1,224,966**				
Senior Unsecured Notes	—	—	—	(858,911)	(858,911)	(1,018,130)	—	—	(1,018,130)
Promissory Notes	—	—	—	(90,294)	(90,294)				
Senior secured debt	—	—	—	(4,853,939)	(4,853,939)	—	(5,063,769)	—	(5,063,769)
Other bank loans	—	—	—	(198,741)	(198,741)				
Finance lease payables	—	—	—	(9,360)	(9,360)				
Other financial liabilities	—	—	—	(45.640)	(45,640)				
Trade and other payables	—	—	—	(423,096)	(423,096)				
Other current liabilities	—	—	—	(14,879)	(14,879)				
Financial liabilities not measured at fair value	**—**	**—**	**—**	**(6,494,860)**	**(6,494,860)**				
	1,224,966	**8,338**	**38,708**	**(6,494,860)**	**(5,222,848)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(17) Financial Instruments (Continued)

Senior secured debt is measured based on observable market data (level 2 of fair value hierarchy).

Concentration of credit risk

For trade receivables the Group uses the simplified approach, estimating lifetime expected credit losses, while for all other financial assets the Group uses the general approach for calculating expected credit losses. In both cases, due to the customers' credit rating, as well as the internal classification systems currently in place for new customers, and considering that collection periods are mostly under 30 days, there is no significant impact for the Group.

(18) Related Parties

Transactions with related parties have been performed as part of the Group's ordinary course of business and have been performed at arm's length.

Group transactions with related parties during the six-months ended 30 June 2018 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
Net Sales	3,081	—	—	—
Purchases of inventory	(39,967)	—	—	—
Other service expenses	(8,181)	—	(1,945)	(412)
Operating leases expenses	—	—	(2,592)	—
Remuneration	—	(8,966)	—	(3,657)
R&D agreements	(48)	—	—	—
Financial income	541	—	—	—
	(44,574)	(8.966)	(4,537)	(4,069)

Group transactions with related parties during the six-months ended 30 June 2017 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
Net Sales	1,646	—	—	—
Purchases of inventory	(30,203)	—	—	—
Other service expenses	(5,838)	—	(3,595)	(457)
Operating leases expenses	—	—	(2,855)	—
Remuneration	—	(6,741)	—	(1,938)
Financial income	853	—	—	—
	(33,542)	(6,741)	(6,450)	(2,395)

(18) Related Parties (Continued)

Group transactions with related parties during the three-months period ended 30 June 2018 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
	Not reviewed			
Net Sales	1,288	—	—	—
Purchases of inventory	(24,734)	—	—	—
Other service expenses	(4,635)	—	(102)	(206)
Operating leases expenses	—	—	(1,304)	—
Remuneration	—	(4,365)	—	(1,828)
R&D agreements	(48)	—	—	—
Financial income	305	—	—	—
	(27,824)	(4,365)	(1,406)	(2,034)

Group transactions with related parties during the three-months period ended 30 June 2017 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the company
	Not reviewed			
Net Sales	1,099	—	—	—
Purchases of inventory	(13,298)	—	—	—
Other service expenses	(2,752)	—	(1,753)	(231)
Operating leases expenses	—	—	(1,594)	—
Remuneration	—	(3,423)	—	(1,091)
Financial income	454	—	—	—
	(14,497)	(3,423)	(3,347)	(1,322)

The Group has not extended any advances or loans to the members of the board of directors or key management personnel nor has it assumed any guarantee commitments on their behalf. It has also not assumed any pension or life insurance obligations on behalf of former or current members of the board of directors or key management personnel. In addition, as disclosed in note 29(c) of the consolidated financial statements as at and for the year ended 31 December 2017, certain Company directors and key management personnel are entitled to termination benefits.

KPMG Auditores, S.L.

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Independent Auditor's Report on the Consolidated Annual Accounts

(Translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

To the Shareholders of Grifols, S.A.

REPORT ON THE CONSOLIDATED ANNUAL ACCOUNTS

Opinion

We have audited the consolidated annual accounts of Grifols, S.A. (the "Parent") and subsidiaries (the "Group") which comprise the consolidated balance sheet at 31 December 2017, and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and consolidated notes.

In our opinion, the accompanying consolidated annual accounts give a true and fair view, in all material respects, of the consolidated equity and consolidated financial position of the Group at 31 December 2017 and of its consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and other provisions of the financial reporting framework applicable in Spain.

Basis for Opinion

We conducted our audit in accordance with prevailing legislation regulating the audit of accounts in Spain. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Annual Accounts section of our report.

We are independent of the Group in accordance with the ethical requirements, including those regarding independence, that are relevant to our audit of the consolidated annual accounts in Spain pursuant to the legislation regulating the audit of accounts. We have not provided any non-audit services, nor have any situations or circumstances arisen which, under the aforementioned regulations, have affected the required independence such that this has been compromised.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the consolidated annual accounts for the current period. These matters were addressed in the context of our audit of the consolidated annual accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Hologic Business Combination

See note 3 to the consolidated annual accounts

Key Audit Matter	*How the Matter was Addressed in Our Audit*
On 31 January 2017 the Group closed an agreement to purchase from Hologic Inc. the assets and liabilities from the business engaged in research, development and manufacture of assays and instruments based on NAT technology for transfusional diagnostics and transplants for an amount of Euros 1,776 million. The accounting of this transaction was complex and required the application of value judgements in identifying and determining the fair value of the assets and liabilities acquired. The valuation used for this purpose has been performed internally using generally accepted valuation techniques for identified intangible assets. We consider that this transaction is a key audit matter due to its significance, the inherent judgement implied by estimating the fair value of identified intangible assets and its impact on the consolidated annual accounts.	Our audit procedures included, inter alia, an assessment of the design and implementation of the relevant controls related to the process of identifying, valuing and recognising the assets and liabilities acquired. We have also obtained the valuation report prepared by the Group and we have assessed the methodology and key assumptions used in the report to determine the fair values of the assets and liabilities acquired and their identification, involving our valuation specialists for this purpose and comparing the Group's explanations with market data and our prior experience in similar transactions. We have also assessed whether the disclosures in the consolidated annual accounts regarding the transaction meet the requirements of the applicable financial reporting framework.

Impairment of Goodwill and Development in Progress Costs See notes 7 and 8 to the consolidated annual accounts	
Key Audit Matter	*How the Matter was Addressed in Our Audit*
The Group has recognised goodwill and development in progress costs of Euros 4,590 million and Euros 183 million, respectively, allocated to the corresponding cash generating units (CGU). The Group calculates the recoverable amount of goodwill and development in progress costs on an annual basis to determine whether they have been impaired. These recoverable amounts are determined by applying valuation techniques which require judgement by the Directors and the use of assumptions and estimates in relation to the financial projections and cash flow discounts used. Intangible assets relating to development projects in progress also include the risks regarding technical success and regulatory approval. Due to the high level of judgement, the uncertainty associated with these estimates and the significance of the carrying amount of these intangible assets, this has been considered a key matter of our audit for the current year.	Our audit procedures comprised the following: • assessing the design and implementation of the controls linked to the process of evaluating the impairment of goodwill and development in progress costs. • assessing the reasonableness of the methodology used to calculate the recoverable amount and the main assumptions, with the involvement of our valuation specialists. • comparing the coherence of the estimates of growth of future cash flows of each CGU or project included in the calculation of recoverable amount with the business plans approved by the Group's governing bodies. We have also compared the cash flow forecasts of cash generating units estimated in prior years with the actual cash flows obtained. • assessing the sensitivity to reasonably possible changes in certain assumptions. • evaluating whether the disclosures in the consolidated annual accounts meet the requirements of the financial reporting framework applicable to the Group.

Other Information: Consolidated Directors' Report

Other information solely comprises the 2017 consolidated directors' report, the preparation of which is the responsibility of the Parent's Directors and which does not form an integral part of the consolidated annual accounts.

Our audit opinion on the consolidated annual accounts does not encompass the consolidated directors' report. Our responsibility regarding the information contained in the consolidated directors' report is defined in the legislation regulating the audit of accounts, which establishes two different levels for this information:

a) A specific level applicable to non-financial consolidated information, as well as certain information included in the Annual Corporate Governance Report, as defined in article 35.2. b) of the Audit Law 22/2015, which consists of merely verifying that this information has been provided in the directors' report, or where applicable, in a separate report corresponding to the same year and to which reference is made in the directors' report, and if not, report on this matter.

b) A general level applicable to the rest of the information included in the consolidated directors' report, which consists of assessing and reporting on the consistency of this information with the consolidated annual accounts, based on knowledge of the Group obtained during the audit of the aforementioned accounts and without including any information other than that obtained as evidence during the audit. Also, assessing and reporting on whether the content and presentation of this part of the consolidated directors' report are in accordance with applicable legislation. If, based on the work we have performed, we conclude that there are material misstatements, we are required to report them.

Based on the work carried out, as described above, we have verified that the information mentioned in a) above has been provided in the consolidated directors' report and that the rest of the information contained in the consolidated directors' report is consistent with that disclosed in the consolidated annual accounts for 2017 and the content and presentation of the report are in accordance with applicable legislation.

Directors' and Audit Committee's Responsibility for the Consolidated Annual Accounts

The Parent's Directors are responsible for the preparation of the accompanying consolidated annual accounts in such a way that they give a true and fair view of the consolidated equity, consolidated financial position and consolidated financial performance of the Group in accordance with IFRS-EU and other provisions of the financial reporting framework applicable to the Group in Spain, and for such internal control as they determine is necessary to enable the preparation of consolidated annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated annual accounts, the Parent's Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Parent's audit committee is responsible for overseeing the preparation and presentation of the consolidated annual accounts.

Auditor's Responsibilities for the Audit of the Consolidated Annual Accounts_

Our objectives are to obtain reasonable assurance about whether the consolidated annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with prevailing legislation regulating the audit of accounts in Spain will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence economic decisions of users taken on the basis of these consolidated annual accounts.

As part of an audit in accordance with prevailing legislation regulating the audit of accounts in Spain, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Parent's Directors.
- Conclude on the appropriateness of the Parent's Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated annual accounts, including the disclosures, and whether the consolidated annual accounts represent the underlying transactions and events in a manner that achieves a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated annual accounts. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee of the Parent regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Parent's audit committee with a statement that we have complied with the applicable ethical requirements, including those regarding independence, and to communicate with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated to the audit committee of the Parent, we determine those that were of most significance in the audit of the consolidated annual accounts of the current period and which are therefore the key audit matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Additional Report to the Audit Committee of the Parent

The opinion expressed in this report is consistent with our additional report to the Parent's audit committee dated 27 February 2018.

Contract Period

At their ordinary general meeting held on 26 May 2017, the shareholders appointed us as auditors of the Group for the year ended 31 December 2017.

Previously, we were appointed for a period of three years from 31 July 1990 to 1992, both inclusive, by consensus of the shareholders at their general meeting, and have been auditing the annual accounts since the year ended 31 July 1990.

KPMG Auditores, S.L.
Entered in the Spanish Official Register of Auditors (R.O.A.C.) with number S0702

(Signed on the original in Spanish)

Olga Sánchez López
Entered in the Spanish Official Register of Auditors (R.O.A.C.) with number 15865

27 February 2018

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets

at 31 December 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Assets	31/12/17	31/12/16
Goodwill (note 7)	4,590,498	3,643,995
Other intangible assets (note 8)	1,269,342	1,195,302
Property, plant and equipment (note 9)	1,760,053	1,809,852
Investments in equity-accounted investees (note 10)	219,009	201,345
Non-current financial assets		
Non-current financial assets measured at fair value	47,046	58,864
Non-current financial assets not measured at fair value	22,843	30,681
Total non-current financial assets (note 11)	69,889	89,545
Deferred tax assets (note 27)	66,157	67,219
Total non-current assets	**7,974,948**	**7,007,258**
Inventories (note 12)	1,629,293	1,642,931
Trade and other receivables		
Trade receivables	286,198	413,656
Other receivables	40,681	42,299
Current income tax assets	59,531	77,713
Trade and other receivables (note 13)	386,410	533,668
Other current financial assets (note 11)	10,738	2,582
Other current assets	32,354	48,324
Cash and cash equivalents (note 14)	886,521	895,009
Total current assets	**2,945,316**	**3,122,514**
Total assets	**10,920,264**	**10,129,772**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets (Continued)

at 31 December 2017 and 2016

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Equity and liabilities	31/12/17	31/12/16
Share capital	119,604	119,604
Share premium	910,728	910,728
Reserves	2,027,648	1,694,245
Treasury stock	(62,422)	(68,710)
Interim dividend	(122,986)	(122,908)
Profit for the year attributable to the Parent	662,700	545,456
Total equity	3,535,272	3,078,415
Available for sale financial assets	4,926	(5,219)
Other comprehensive Income	(656)	(642)
Translation differences	89,537	648,927
Other comprehensive expenses	93,807	643,066
Equity attributable to the Parent (note 15)	**3,629,079**	**3,721,481**
Non-controlling interests (note 17)	4,886	6,497
Total equity	**3,633,965**	**3,727,978**
Liabilities		
Grants (note 18)	11,822	12,196
Provisions (note 19)	5,763	5,118
Non-current financial liabilities (note 20)	5,901,815	4,712,071
Deferred tax liabilities (note 27)	388,912	600,646
Total non-current liabilities	**6,308,312**	**5,330,031**
Provisions (note 19)	106,995	89,588
Current financial liabilities (note 20)	155,070	230,065
Trade and other payables		
Suppliers	423,096	461,073
Other payables	141,720	142,894
Current income tax liabilities	6,709	7,957
Total trade and other payables (note 21)	571,525	611,924
Other current liabilities (note 22)	144,397	140,186
Total current liabilities	**977,987**	**1,071,763**
Total liabilities	**7,286,299**	**6,401,794**
Total equity and liabilities	**10,920,264**	**10,129,772**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Profit and Loss

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/17	31/12/16	31/12/15
Continuing Operations			
Net revenue (notes 6 and 23)	4,318,073	4,049,830	3,934,563
Cost of sales	(2,166,062)	(2,137,539)	(2,003,565)
Gross Profit	**2,152,011**	**1,912,291**	**1,930,998**
Research and Development (note 8 (e))	(288,320)	(197,617)	(224,193)
Selling, General and Administration expenses	(860,348)	(775,266)	(736,435)
Operating Expenses	**(1,148,668)**	**(972,883)**	**(960,628)**
Operating Result	**1,003,343**	**939,408**	**970,370**
Finance income	9,678	9,934	5,841
Finance costs	(263,344)	(244,829)	(240,335)
Change in fair value of financial instruments	(3,752)	(7,610)	(25,206)
Impairment and gains /(losses) on disposal of financial instruments	(18,844)	—	—
Exchange differences	(11,472)	8,916	(12,140)
Finance result (note 26)	**(287,734)**	**(233,589)**	**(271,840)**
Share of losses of equity accounted investees (note 10)	(19,887)	6,933	(8,280)
Profit before income tax from continuing operations	**695,722**	**712,752**	**690,250**
Income tax expense (note 27)	(34,408)	(168,209)	(158,809)
Profit after income tax from continuing operations	**661,314**	**544,543**	**531,441**
Consolidated profit for the year	**661,314**	**544,543**	**531,441**
Profit attributable to the Parent	662,700	545,456	532,145
Loss attributable to non-controlling interest (note 17)	(1,386)	(913)	(704)
Basic earnings per share (Euros) (see note 16)	0.97	0.80	0.78
Diluted earnings per share (Euros) (see note 16)	0.97	0.80	0.78

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/17	31/12/16	31/12/15
Consolidated profit for the year	661,314	544,543	531,441
Items for reclassification to profit or loss			
Translation differences	(532,389)	103,833	290,635
Translation differences / Cash Flow Hedge	—	(6,809)	—
Available for sale financial Assets	10,145	(5,219)	—
Equity accounted investees (note 10) / Translation differences	(27,134)	10,671	2,673
Cash flow hedges—effective part of changes in fair value	—	14,501	55,305
Cash flow hedges—amounts taken to profit or loss	—	(7,426)	(25,206)
Other comprehensive income	(14)	(4,810)	4,575
Tax effect	—	(2,462)	(12,093)
Other comprehensive income for the year, after tax	**(549,392)**	**102,279**	**315,889**
Total comprehensive income for the year	**111,922**	**646,822**	**847,330**
Total comprehensive income attributable to the Parent	113,441	647,667	848,603
Total comprehensive expense attributable to the non-controlling interests	(1,519)	(845)	(1,273)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/2017	31/12/2016	31/12/2015
Cash flows from operating activities			
Profit before tax	**695,722**	**712,752**	**690,250**
Adjustments for:	**556,792**	**391,986**	**460,564**
Amortization and depreciation (note 25)	215,490	201,869	189,755
Other adjustments:	341,302	190,117	270,809
(Profit) / losses on equity accounted investments (note 10)	19,888	(6,933)	8,280
Impairment of assets and net provision charges	66,047	(23,079)	(564)
(Profit) / losses on disposal of fixed assets	1,551	(2,987)	6,721
Government grants taken to income	(286)	(1,681)	(1,854)
Finance cost / (income)	263,657	236,034	256,129
Other adjustments	(9,555)	(11,237)	2,097
Change in operating assets and liabilities	**(65,800)**	**(164,319)**	**(77,058)**
Change in inventories	(165,508)	(173,003)	(120,641)
Change in trade and other receivables	80,112	(25,180)	144,405
Change in current financial assets and other current assets	(2,691)	(2,610)	(5,565)
Change in current trade and other payables	22,287	36,474	(95,257)
Other cash flows used in operating activities	**(344,968)**	**(387,141)**	**(330,978)**
Interest paid	(207,079)	(180,497)	(171,380)
Interest recovered	9,492	8,685	4,316
Income tax (paid) / received	(147,015)	(215,329)	(163,914)
Other recovered (paid)	(366)	—	—
Net cash from operating activities	**841,746**	**553,278**	**742,778**
Cash flows from investing activities			
Payments for investments	**(2,209,667)**	**(509,078)**	**(647,417)**
Group companies, associates and business units (notes 3, 2 (b) and 10)	(1,857,210)	(202,727)	(58,609)
Property, plant and equipment and intangible assets	(322,973)	(292,690)	(567,020)
Property, plant and equipment	(251,507)	(249,416)	(522,587)
Intangible assets	(71,466)	(43,274)	(44,433)
Other financial assets	(29,484)	(13,661)	(21,788)
Proceeds from the sale of investments	**23,787**	**2,426**	**14,307**
Property, plant and equipment	762	2,426	14,307
Other financial assets	23,025	—	—
Net cash used in investing activities	**(2,185,880)**	**(506,652)**	**(633,110)**
Cash flows from financing activities			
Proceeds from and payments for equity instruments	0	(11,766)	12,695
Payments for treasury stock (note 15 (d))	—	(12,686)	(58,457)
Sales of treasury stock (note 15 (d))	—	920	71,152
Proceeds from and payments for financial liability instruments	1,808,771	(80,149)	28,953
Issue	1,912,615	81,513	178,686
Redemption and repayment	(103,844)	(161,662)	(149,733)
Dividends and interest on other equity instruments	(218,260)	(216,151)	(216,772)
Dividends paid	(218,260)	(216,151)	(221,772)
Dividends received	—	—	5,000
Other cash flows from / (used in) financing activities	(156,446)	(21,492)	17,086
Financing costs included on the amortised costs of the debt	(142,288)	—	—
Other amounts from / (used in) financing activities	(14,158)	(21,492)	17,086
Net cash from/(used in) financing activities	**1,434,065**	**(329,558)**	**(158,038)**
Effect of exchange rate fluctuations on cash	**(98,419)**	**35,441**	**111,724**
Net increase in cash and cash equivalents	**(8,488)**	**(247,491)**	**63,354**
Cash and cash equivalents at beginning of the year	**895,009**	**1,142,500**	**1,079,146**
Cash and cash equivalents at year end	**886,521**	**895,009**	**1,142,500**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2014	119,604	910,728	1,088,337	470,253	(85,944)	(69,252)	240,614	—	(406)	(15,811)	2,658,123	4,765	2,662,888
Translation differences	—	—	—	—	—	—	293,877	—	—	—	293,877	(569)	293,308
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	19,140	19,140	—	19,140
Other comprehensive income	—	—	—	—	—	—	—	—	3,441	—	3,441	—	3,441
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	293,877	—	3,441	19,140	316,458	(569)	315,889
Profit/(loss) for the year	—	—	—	532,145	—	—	—	—	—	—	532,145	(704)	531,441
Total comprehensive income / (expense) for the year	—	—	—	532,145	—	—	293,877	—	3,441	19,140	848,603	(1,273)	847,330
Net change in treasury stock (note 15 (d))	—	—	2,018	—	—	10,677	—	—	—	—	12,695	—	12,695
Acquisition of non-controlling interests (note 15 (c))	—	—	(1,770)	—	—	—	—	—	—	—	(1,770)	1,767	(3)
Other changes	—	—	324	—	—	—	—	—	—	—	324	(72)	252
Interim dividend	—	—	—	—	(119,615)	—	—	—	—	—	(119,615)	—	(119,615)
Distribution of 2014 profit													—
Reserves	—	—	368,096	(368,096)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(102,157)	—	—	—	—	—	—	(102,157)	—	(102,157)
Interim dividend	—	—	(85,944)	—	85,944	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	282,724	(470,253)	(33,671)	10,677	—	—	—	—	(210,523)	1,695	(208,828)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity (Continued)

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2015	119,604	910,728	1,371,061	532,145	(119,615)	(58,575)	534,491	—	3,035	3,329	3,296,203	5,187	3,301,390
Translation differences	—	—	—	—	—	—	114,436	—	—	—	114,436	68	114,504
Available for sale financial assets	—	—	—	—	—	—	—	(5,219)	—	—	(5,219)	—	(5,219)
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	(3,329)	(3,329)	—	(3,329)
Other comprehensive income	—	—	—	—	—	—	—	—	(3,677)	—	(3,677)	—	(3,677)
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	114,436	(5,219)	(3,677)	(3,329)	102,211	68	102,279
Profit/(loss) for the year	—	—	—	545,456	—	—	—	—	—	—	545,456	(913)	544,543
Total comprehensive income / (expense) for the year	—	—	—	545,456	—	—	114,436	(5,219)	(3,677)	(3,329)	647,667	(845)	646,822
Net change in treasury stock (note 15 (d))	—	—	(182)	—	—	(10,135)	—	—	—	—	(10,317)	—	(10,317)
Acquisition of non-controlling interests (note 15 (c))	—	—	(2,737)	—	—	—	—	—	—	—	(2,737)	2,737	—
Other changes	—	—	6,816	—	—	—	—	—	—	—	6,816	(582)	6,234
Interim dividend	—	—	—	—	(122,908)	—	—	—	—	—	(122,908)	—	(122,908)
Distribution of 2015 profit													
Reserves	—	—	319,287	(319,287)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(93,243)	—	—	—	—	—	—	(93,243)	—	(93,243)
Interim dividend	—	—	—	(119,615)	119,615	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	323,184	(532,145)	(3,293)	(10,135)	—	—	—	—	(222,389)	2,155	(220,234)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity (Continued)

for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2016	119,604	910,728	1,694,245	545,456	(122,908)	(68,710)	648,927	(5,219)	(642)	—	3,721,481	6,497	3,727,978
Translation differences	—	—	—	—	—	—	(559,390)	—	—	—	(559,390)	(133)	(559,523)
Available for sale financial assets	—	—	—	—	—	—	—	10,145	—	—	10,145	—	10,145
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	—	—	—	—
Other comprehensive income	—	—	—	—	—	—	—	—	(14)	—	(14)	—	(14)
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	(559,390)	10,145	(14)	—	(549,259)	(133)	(549,392)
Profit/(loss) for the year	—	—	—	662,700	—	—	—	—	—	—	662,700	(1,386)	661,314
Total comprehensive income / (expense) for the year	—	—	—	662,700	—	—	(559,390)	10,145	(14)	—	113,441	(1,519)	111,922
Net change in treasury stock (note 15 (d))	—	—	—	—	—	6,288	—	—	—	—	6,288	—	6,288
Acquisition of non-controlling interests (note 15 (c))	—	—	(346)	—	—	—	—	—	—	—	(346)	(43)	(389)
Other changes	—	—	6,475	—	—	—	—	—	—	—	6,475	(49)	6,426
Interim dividend	—	—		—	(122,986)	—	—	—	—	—	(122,986)	—	(122,986)
Distribution of 2016 profit													
Reserves	—	—	422,548	(422,548)	—	—	—	—	—	—	—	—	—
Dividends	—	—	(95,274)	—	—	—	—	—	—	—	(95,274)	—	(95,274)
Interim dividend	—	—	—	(122,908)	122,908	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	333,403	(545,456)	(78)	6,288	—	—	—	—	(205,843)	(92)	(205,935)
Balance at 31 December 2017	119,604	910,728	2,027,648	662,700	(122,986)	(62,422)	89,537	4,926	(656)	—	3,629,079	4,886	3,633,965

The accompanying notes form an integral part of the consolidated annual accounts.

(1) Nature, Principal Activities and Subsidiaries

Grifols, S.A. (hereinafter the Company) was incorporated with limited liability under Spanish law on 22 June 1987. Its registered and tax offices are in Barcelona. The Company's statutory activity consists of providing corporate and business administrative, management and control services, as well as investing in assets and property. Its principal activity involves rendering administrative, management and control services to its subsidiaries.

On 17 May 2006 the Company completed its flotation on the Spanish securities market, which was conducted through the public offering of 71,000,000 ordinary shares of Euros 0.50 par value each and a share premium of Euros 3.90 per share. The total capital increase (including the share premium) amounted to Euros 312.4 million, equivalent to a price of Euros 4.40 per share.

The Company's shares were floated on the Spanish stock exchange IBEX-35 index on 2 January 2008.

All of the Company's shares are listed on the Barcelona, Madrid, Valencia and Bilbao securities markets and on the Spanish Automated Quotation System (SIBE/Continuous Market). On 2 June 2011, Class B non-voting shares were listed on the NASDAQ (USA) and on the Spanish Automated Quotation System (SIBE/Continuous Market).

Grifols, S.A. is the Parent of the subsidiaries listed in Appendix I of this note to the consolidated annual accounts.

Grifols, S.A. and subsidiaries (hereinafter the Group) act on an integrated basis and under common management and their principal activity is the procurement, manufacture, preparation and sale of therapeutic products, especially haemoderivatives.

The main factory locations of the Group's Spanish companies are in Parets del Vallés (Barcelona) and Torres de Cotilla (Murcia), while the US companies are located in Los Angeles (California), Clayton (North Carolina), Emeryville (California), and San Diego (California).

(2) Basis of Presentation

The consolidated annual accounts have been prepared on the basis of the accounting records of Grifols, S.A. and of the Group companies. The consolidated annual accounts for 2017 have been prepared under International Financial Reporting Standard as adopted by the European Union (IFRS-EU) which for Grifols Group purposes are identical to the standards as endorsed by the International Accounts Standard Board (IFRS-IASB) to present fairly the consolidated equity and consolidated financial position of Grifols, S.A. and subsidiaries at 31 December 2017, as well as the consolidated results from their operations, consolidated cash flows and consolidated changes in equity for the year then ended.

These consolidated annual accounts for 2017 show comparative figures for 2016 and voluntarily show figures for 2015 from the consolidated statement of profit and loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows and their corresponging notes thereto.

The Group adopted IFRS-EU for the first time on 1 January 2004 and has been preparing its annual accounts under International Financial Reporting Standards, as adopted by the European Union (IFRS-EU) as required by capital market regulations governing the presentation of financial statements by companies whose debt or own equity instruments are listed on a regulated market.

The Board of Directors of Grifols, S.A. considers that these consolidated annual accounts authorized for issue at their meeting held on 23 February 2018, will be approved by the shareholders without any modifications.

In accordance with the provision of section 357 of the Irish Companies Act 2014, the Company has irrevocably guaranteed all liabilities of an Irish subsidiary undertaking, Grifols Worldwide Operations Limited (Ireland) (see Appendix I), for the financial year ended 31 December 2017 as referred to in

(2) Basis of Presentation (Continued)

subsection 1(b) of that Act, for the purposes of enabling Grifols Worldwide Operations Limited to claim exemption from the requirement to file their own financial statements in Ireland.

(a) Relevant accounting estimates, assumptions and judgments used when applying accounting principles

The preparation of the consolidated annual accounts in conformity with IFRS-EU requires management to make judgments, estimates and assumptions that affect the application of Group accounting policies. The following notes include a summary of the relevant accounting estimates and judgments used to apply accounting policies which have the most significant effect on the amounts recognized in the consolidated annual accounts.

- Assumptions used to test non-current assets and goodwill for impairment. Relevant cash generating units are tested annually for impairment. These are based on risk-adjusted future cash flows discounted using appropriate interest rates. The key assumptions used are specified in note 7. Assumptions relating to risk-adjusted future cash flows and discount rates are based on business forecasts and are therefore inherently subjective. Future events could cause a change in business forecasts, with a consequent adverse effect on the future results of the Group. To the extent considered a reasonably possible change in key assumptions could result in an impairment of goodwill, a sensitivity analysis has been disclosed to show the effect of changes to these assumptions and the effect of the cash generating unit (CGU) on the recoverable amount.
- Determination of the fair value of assets, liabilities and contingent liabilities related to business combinations. Details of the fair value methods used by the Group are provided in note 3.
- Evaluation of the capitalization of development costs (see note 4(h)). The key assumption is related to the estimation of sufficient future economic benefits of the projects.
- Evaluation of provisions and contingencies. Key assumptions relate to the evaluation of the likelihood of an outflow of resources due to a past event, as well as to the evaluation of the best estimate of the likely outcome. These estimates take into account the specific circumstances of each dispute and relevant external advice and therefore are inherently subjective and could change substantially over time as new facts arise and each dispute progresses. Details of the status of various uncertainties involved in significant unresolved disputes are set out in note 29.
- Evaluation of the recoverability of tax credits, including tax loss carryforwards and rights for deductions. Deferred tax assets are recognized to the extent that future taxable profits will be available against which the temporary differences can be utilized, based on management's assumptions relating to the amount and timing of future taxable profits (see notes 4(t) and 27).
- Analysis that the refinancing of debt and bonds does not result in a new financial liability.

No changes have been made to prior year judgments relating to existing uncertainties.

The Group is also exposed to interest rate and currency risks. Refer to sensitivity analysis in note 30.

(b) Basis of consolidation

Appendix I shows details of the percentages of direct or indirect ownership of subsidiaries by the Company at 31 December 2017, 2016 and 2015, as well as the consolidation method used in each case for preparation of the accompanying consolidated annual accounts.

Subsidiaries in which the Company directly or indirectly owns the majority of equity or voting rights have been fully consolidated. Associates in which the Company owns between 20% and 50% of share capital and over which it has no control but does have significant influence, have been accounted for under the equity method.

(2) Basis of Presentation (Continued)

Although the Group holds 30% of the shares with voting rights of Grifols Malaysia Sdn Bhd, it controls the majority of the economic and voting rights of Grifols Malaysia Sdn Bhd through a contract with the other shareholder and a pledge on its shares. As a consequence it has been fully consolidated.

Grifols (Thailand) Ltd. has two classes of shares and it grants the majority of voting rights to the class of shares held by the Group. As a consequence it has been fully consolidated.

Changes in associates are detailed in note 10.

Changes in subsidiaries

In 2017:

- On 4 December 2017, Progenika Biopharma, S.A., transferred the total shares of Abyntek Biopharma, S.L. to a third party. No profit or loss has been recognized on this transaction.
- On 11 October 2017, Grifols Diagnostic Solutions, Inc. acquired an additional 0.98% interest in Progenika Biopharma, S.A. from its non-controlling interests for a total amount of Euros 644 thousand in the form of a cash payment. As a result, Grifols owns 90.23% of Progenika's share capital at 31 December 2017.
- On 24 July 2017, Grifols has acquired an additional 40% interest in Kiro Grifols, S.L. for a purchase price of Euros 12.8 million. With this new acquisition, Grifols has reached a 90% interest in equity of Kiro Grifols S.L. (see note 3(b)).
- On 13 March 2017, Progenika Latina, S.A. de C.V., was wound up. The assets and liabilities of Progenika Latina. S.A. de C.V. have been integrated into Progenika Biopharma, S.A.
- On 31 January 2017, Grifols closed the transaction for the asset purchase agreement to acquire Hologic's business of NAT (Nucleic Acid Testing) donor screening unit, previously agreed on 14 December 2016, for a total amount of US Dollar 1,865 million (see note 3(a)).
- On 5 January 2017, the Group incorporated a new company called Chiquito Acquisition Corp.
- With effect as of 1 January 2017, Grifols Diagnostic Solutions, Inc. and Progenika, Inc. entered into a merger agreement. The surviving company was Grifols Diagnostic Solutions, Inc.

In 2016 Grifols incorporated the following companies:

- PBS Acquisition Corp. (USA)
- Grifols Diagnostics Equipment Taiwan Limited (Taiwan)
- Grifols Innovation and New Technologies Limited (Ireland)
- On 12 December 2016, the Group company Grifols Innovation and New Technologies Limited subscribed to an increase in the share capital of VCN Biosciences, S.L. amounting to Euros 5 million. Following this capital increase, Grifols' interest rose to 81.34%. Grifols subscribed to another capital increase on 16 November 2015 through the Group company Gri-Cel, S.A. for an amount of Euros 2,549 thousand (see note 3(d)).
- With effect as of 1 November 2016, Grifols Brasil, Lda. and Gri-Cei, S.A Produtos para Trasfusao entered into a merger agreement. The surviving company was Grifols Brasil, Lda.
- In August 2016 and July 2015 Araclon Biotech , S.L carried out two share capital increases of Euros 6.7 million and Euros 6 million, respectively. After the latter capital increase Grifols' interest rose to 73.22% (see note 15 (c)).

(2) Basis of Presentation (Continued)

- In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After this acquisition, Grifols' interest rose to 100%.
- On 3 March, 2016 the Group executed the call option on 32.93% of the shares in Progenika Biopharma, S.A. for Euros 25 million following the exercise of call and put options agreed in February 2013. Grifols paid 50% of this investment in Grifols B shares (876,777 shares) and the remaining 50% in cash (see note 15(d)). The Group guaranteed the selling shareholders the option to repurchase the Class B shares during the first five days following the sale date. As a result, Grifols owns 89.25% of Progenika's share capital at 31 December 2016.
- With effect as of 1 January 2016, Progenika Biopharma, S.A and Brainco Biopharma, S.L entered into a merger agreement. The surviving company was Progenika Biopharma, S.A.

In 2015:

- On 9 February 2015 the Group acquired 100% of the assets of Gripdan Invest, S.L. for Euros 46 million in the form of a cash payment.
- Effective as of 1 January 2015, Plasmacare, Inc and Biomat USA, Inc. entered into a merger agreement, the surviving company being Biomat USA, Inc.
- Effective as of 1 January 2015, Proteomika, S.L.U. and Progenika Biopharma, S.A entered into a merger agreement, the surviving company being Progenika Biopharma, S.A.
- Effective as of 1 January 2015, Arrahona Optimus, S.L and Grifols, S.A entered into a merger agreement, the surviving company being Grifols, S.A.

Changes in associates and joint control

Changes in associates and joint control are detailed in note 10.

(c) Amendments to IFRS in 2017, 2016 and 2015

In accordance with IFRS, the following should be noted in connection with the scope of application of IFRS and the preparation of these consolidated annual accounts of the Group.

Effective date in 2015

		Mandatory application for annual periods beginning on or after:	
Standards		**IASB effective date**	**EU effective date**
IAS 19	Defined Benefit Plans: employee contributions (amendments to IAS 19)	1 July 2014	1 February 2015(*)
Various	Annual improvements to IFRSs 2010-2012 cycle	1 July 2014	1 February 2015(*)
Various	Annual improvements to IFRSs 2011-2013 cycle	1 July 2014	1 January 2015(*)

(*) early adopted

(2) Basis of Presentation (Continued)

Effective date in 2016

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 16 IAS 38 . .	Clarification of Acceptable Methods of Depreciation and Amortisation (issued on 12 May 2014)	1 January 2016	1 January 2016
IFRS 11	Accounting for Acquisitions of Interests in Joint Operations (issued on 6 May 2014)	1 January 2016	1 January 2016
IAS 27	Equity Method in Separate Financial Statements (issued on 12 August 2014)	1 January 2016	1 January 2016
Various	Annual Improvements to IFRSs 2012-2014 cycle (issued on 25 September 2014)	1 January 2016	1 January 2016
IAS 1	Disclosure Initiative (issued on 18 December 2014)	1 January 2016	1 January 2016

Effective date in 2017

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 12	Recognition of Deferred Tax Assets for Unrealized Losses (issued on 19 January 2016)	1 January 2017	1 January 2017
IAS 7	Disclosure Initiative (issued on 29 January 2016)	1 January 2017	1 January 2017
Various	Annual improvements to IFRSs 2014-2016 cycle (issued on 8 December 2016)—IFRS 12	1 January 2017	Pending

The modification to IFRS 12 issued by IASB is pending approval by the EU. Consequently, the Group confirms that despite the existing divergence between IASB-IFRS and IFRS-EU at 31 December 2017, it is a minor difference that requires additional information.

The application of these standards and interpretations has had no material impact on these consolidated annual accounts.

(2) Basis of Presentation (Continued)

Standards issued but not effective in 2017

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IFRS 15	Revenue from contracts with Customers (issued on 28 May 2014)	1 January 2018	1 January 2018
IFRS 15	Clarification to IFRS15 Revenue from Contracts with Customers (issued on 12 April 2016)	1 January 2018	1 January 2018
IFRS 9	Financial instruments (issued on 24 July 2014)	1 January 2018	1 January 2018
IFRS 2	Classification and Measurement of Share-based Payment Transactions (issued on 20 June 2016)	1 January 2018	pending
IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4	1 January 2018	1 January 2018
IFRS 9	Insurance Contracts (issued on 12 September 2016)		
IFRIC 22	IFRIC 22 Interpretation: Foreign currency translations and Advance Consideration	1 January 2018	pending
IAS 40	Amendments to IAS 40: Transfers of Investment Property	1 January 2018	pending
Various	Annual improvements to IFRSs 2014-2016 cycle (issued on 8 December 2016)	1 January 2018	pending
IFRS 16	Leases (Issued on 13 January 2016)	1 January 2019	1 January 2019
IFRIC 23	Uncertainty over Income Tax Treatments (issued on 7 June 2017)	1 January 2019	pending
IFRS 9	Prepayment Features with Negative Compensation (issued on 12 October 2017)	1 January 2019	pending
IAS 28	Long-term interests in Associates and Joint Ventures (issued on 12 October 2017)	1 January 2019	pending
Various	Annual Improvements to IFRS Standards 2015-2017 Cycle (issued on 12 December 2017)	1 January 2019	pending
IFRS 17	Insurance Contracts (issued on 18 May 2017)	1 January 2021	pending
IAS 19	Amendment to IAS19: Plan Amendment, Curtailment or Settlemet (issued on 7 February 2018)	1 January 2019	pending

At the date of issue of these consolidated annual accounts, the Group is analyzing the impact of the application of the above standards or interpretations published by the International Accounting Standards Board (IASB).

IFRS 9 Financial Instruments

Based on the analysis at the date these consolidated annual accounts were authorized for issue, the expected impacts of adopting IFRS 9 Financial Instruments are summarized below:

- *Classification and measurement of financial assets:*

In general terms, based on the analysis of the new classification vis-à-vis the business model, no significant impacts are foreseen and the majority of financial assets are expected to continue to be measured at amortized cost, the main exception being equity instruments, which will be measured at fair value.

(2) Basis of Presentation (Continued)

- *Impairment of financial assets:*

For trade receivables the Group will use the simplified approach, estimating lifetime expected credit losses, while for all other financial assets the Group will use the general approach for calculating expected credit losses. In both cases, due to the customers' credit rating, as well as the internal classification systems currently in place for new customers, and considering that collection periods are mostly under 30 days, the adoption of IFRS 9 will not have a significant impact.

- *Modification or exchanges of financial liabilities that do not result in derecognition of liabilities*

According to the IASB's interpretation published in October 2017, when a financial liability measured at amortized cost is modified or exchanged and does not result in the derecognition of the financial liability, a gain or loss should be recognized in profit or loss, calculated as the difference between the original contractual cash flows from the liability and the modified cash flows, discounted at the original effective interest rate of the liability.

IFRS 9 must be applied retrospectively as of 1 January 2018, therefore any gains or losses from the modification of financial liabilities that arise from applying the new standard in years prior to 1 January 2018 will be recognized in reserves at that date. Grifols has retrospectively calculated the impact of adopting IFRS 9 on the refinancing of its senior debt and unsecured senior corporate bonds in 2014 and 2017. As a result of these new calculations, the 2014 refinancing of both debts did not cause the derecognition of the respective liabilities, therefore generating an adjustment to profit and loss in that year. Considering the retroactive adjustment generated in 2014, the 2017 refinancing of senior debt did not result in the derecognition of the financial liability either. However the unsecured senior corporate bonds refinancing did cause the derecognition of the liability as it did not pass the new quantitative test. The adoption of IFRS 9 entails a positive impact on reserves of Euros 24,636 thousand.

Detail of the impact in reserves due to IFRS 9 aplication, were as follows:

	Thousand of Euros		
Senior Unsecured Noted	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	853,667	1,000,000	146,334
Deferred Expenses			(41,036)
Negative Impact in reserves			105,298

	Thousand of Euros		
Senior Secured Debt	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	3,375,157	3,226,244	(148,913)
Deferred Expenses			18,979
Positive impact in reserves			(129,934)

	Thousand of Euros		
Total Impact	**IAS 39**	**IFRS 9**	**Impact 01/01/2018**
Total Debt	4,228,823	4,226,244	(2,579)
Deferred Expenses			(22,056)
Positive impact in reserves			(24,636)

(2) Basis of Presentation (Continued)

IFRS 15 Revenue from Contracts with Customers.

IFRS 15 provides a framework that replaces the previous guides on revenue recognition. According to the new criteria, a five-step model should be used to determine the timing and amounts of revenue recognition:

Step 1: Identify the contract.

Step 2: Identify the performance obligations in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligations in the contract.

Step 5: Recognize revenue.

This new model specifies that revenue should be recognized when (or as) control of the goods or services is transferred from an entity to customers, for the amount the entity expects to be entitled to receive. Depending on whether certain criteria are met, revenue is recognized over time, reflecting that the entity has satisfied the performance obligation, or at a point in time, when control of the goods or services is transferred to customers.

Based on the analysis at the date of preparing these consolidated annual accounts, there has been no impact from adopting IFRS 15 Revenue from Contracts with Customers.

Under IFRS 15, entities may adopt the new standard retrospectively or through an adjustment for the accumulated effect at the start of the first year it is applicable. Grifols has opted for the accumulated effect approach as it deems the impact to be immaterial to the annual accounts taken as a whole.

(3) Business Combinations

2017

(a) Hologic Acquisition

On 14 December 2016 Grifols entered into an asset purchase agreement to acquire assets corresponding to Hologic's NAT (Nucleic Acid Testing) business donor screening unit for US Dollars 1,865 million. The transaction was closed on 31 January 2017. The agreement encompasses the acquisition of the Hologic business engaged in research, development and manufacture of assays and instruments based on NAT technology for transfusion and transplantation screening. In addition, it was agreed to cancel the existing joint-collaboration agreement for the commercialization of NAT donor screening products by Grifols. NAT technology makes it possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety.

The transaction is structured through the purchase of assets by Grifols Diagnostic Solutions, Inc., a U.S. incorporated and wholly-owned subsidiary of Grifols, S.A.

The assets acquired comprise a plant in San Diego, California (United States) as well as development rights, licenses to patents and access to product manufacturers.

Grifols consolidates itself as one of the only vertically integrated providers capable of offering comprehensive solutions to blood and plasma donation centers.

This acquisition strengthens cash flows and positively impacts the Group's margins. The sales revenues of the Diagnostic Division will not change as a result of the acquisition due to the existing joint-business between Grifols and Hologic in place since 2014, under which Grifols already owns customer facing activities and records all revenues.

(3) Business Combinations (Continued)

It is expected that this acquisition will strengthen the position of the Grifols Diagnostic Division in transfusion medicine and will increase significantly the profitability of Grifols Diagnostic Division having a direct impact on the Group's EBITDA margin. By streamlining and integrating the NAT business, operational efficiency will be in terms of production, R&D, overheads and administrative expenses.

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date are provided below:

Cost of the business combination	Thousands of Euros	Thousands of US Dollars
Payment in cash	1,734,077	1,865,000
Result of the cancellation of the existing contract	41,894	45,057
Total business combination cost	1,775,971	1,910,057
Fair value of net assets acquired	309,551	332,923
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	1,466,420	1,577,134

As part of the purchase price allocation, the Company determined that the identifiable intangible assets were developed technology and IPR&D. The fair value of the intangible assets was estimated using the income approach. The cash flows were based on estimates used to price the transaction and the discount rates applied were benchmarked with reference to the implied rate of return from the transaction model and the weighted average cost of capital.

The developed technology assets are comprised of know-how, patents and technologies embedded in revenue. The Company applied the Relief-from-Royalty Method to determine its fair value.

IPR&D projects relate to in-process projects that have not reached technological feasibility as of the acquisition date. All of the IPR&D assets were valued using the Multiple-Period Excess Earnings Method approach.

The excess of the purchase price over the estimated fair value of the net assets acquired was recorded to goodwill. The factors contributing to the recognition of the amount of goodwill were the assembled workforce, cost savings and benefits arising from the vertical integration of the business that will lead to efficiencies of R&D, commercial and manufacturing activities.

The expenses incurred in this transaction in 2017 amount to approximately Euros 13 million (Euros 5.1 million in 2016).

The resulting Goodwill has been allocated to the Diagnostic segment.

(3) Business Combinations (Continued)

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities were as follows:

	Fair Value	
	Thousands of Euros	Thousands of US Dollars
R&D in progress	137,756	148,157
Other Intangible assets	142,174	152,908
Property, plant and equipment	24,569	26,424
Deferred Tax Assets (note 27)	16,736	18,000
Inventories	30,157	32,434
Total Assets	351,392	377,923
Current Provisions (note 19 (b))	41,841	45,000
Total liabilities and contingent liabilities	41,841	45,000
Total net assets acquired	309,551	332,923

(b) Kiro Grifols, S.L.

On 25 July 2017 the Group subscribed a capital increase in Kiro Grifols, S.L (formerly Kiro Robotics, S.L.) for an amount of Euros 12.8 million, which represents 40% of the voting and economic rights of Kiro Grifols. In September 2014 the Group had already subscribed a capital increase in Kiro Grifols, S.L (formerly Kiro Robotics, S.L.) for an amount of Euros 21 million, by virtue of which Grifols acquired 50% of Kiro Grifols economic and voting rights. The capital increase was paid by means of a monetary contribution.

As a result, Grifols owns a total of 90% of the voting and economic rights of Kiro Grifols. The remaining 10% will continue to be held by Socios Fundadores Kiro, S.L. a company wholly owned by cooperatives of the Mondragon Corporation.

Grifols also entered into a joint venture & shareholders' agreement (the "Joint Venture Agreement") with Kiro Grifols' partners: Mondragon Innovacion S.P.E, S.A.; Mondragon Assembly, S.Coop. and Agrupación de Fundición y Utillaje, S.Coop.. This agreement governs, among other matters, the capital increase subscribed by Grifols and the managing and governing bodies of Kiro Grifols, whether these are the Board of Directors or any other internal managing and governing bodies.

At the date of issue of these consolidated annual accounts, the Group is working to determine the definitive fair value of intangible assets, liabilities and contingent liabilities acquired in the business combination.

(c) Kedplasma

On 27 December 2016 Grifols entered into an agreement to acquire six new Plasma Donor Centers to the company Kedplasma, LLC, with a purchase price of US Dollar 47 million. Delivery of these centers has been made in February 2017.

(3) Business Combinations (Continued)

Aggregate details of the combination cost, fair value of the net assets acquired and goodwill at the acquisition date (or surplus net assets acquired over the combination cost) are as follows:

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
Payment in cash	44,238	47,083
Total business combination cost	44,238	47,083
Fair value of net assets acquired	4,137	4,403
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	40,101	42,680

The fair value of net assets acquired includes property, plant and equipment amounting to Euros 3,698 thousand.

Goodwill is allocated to the Bioscience segment and includes plasma donor center base, FDA licenses and workforce retained.

At 31 December 2016, the group advanced the sum of US Dollar 15 million related to this acquisition.

2015

(d) VCN

On 14 February 2014 and 16 November 2015, the Group company Gri-Cel, S.A, subscribed both share capital increases in the capital of VCN Bioscience, S.L for Euros 700 thousand and Euros 2,549 thousand, respectively. After this capital increase, Grifols' interest rises to 68.01% in 2015 and the company is fully consolidated at year end. Since 2016, the Group company Grifols Innovation and New Technologies Limited centralize the Group's investments in R&D projects in fields of medicine other than its core business.

(4) Significant Accounting Policies

(a) Subsidiaries and associates

Subsidiaries are entities, including special purpose entities (SPE), over which the Group exercises control, either directly or indirectly, through subsidiaries. The Group controls a subsidiary when it has the substantive rights in force that provide the ability to manage relevant activities. The Group is exposed or has the right to variable returns for its involvement in the subsidiaries when the returns obtained vary depending on the economic performance of the subsidiaries.

The income, expenses and cash flows of subsidiaries are included in the consolidated annual accounts from the date of acquisition, which is when the Group takes control. Subsidiaries are excluded from the consolidated Group from the date on which control is lost.

Transactions and balances with Group companies and unrealized gains or losses have been eliminated upon consolidation.

The accounting policies of subsidiaries have been adapted to those of the Group for transactions and other events in similar circumstances.

The financial statements of consolidated subsidiaries have been prepared as of the same date and for the same reporting period as the financial statements of the Company.

(4) Significant Accounting Policies (Continued)

Associates are entities over which the Company, either directly or indirectly through subsidiaries, exercises significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those entities. The existence of potential voting rights that are exercisable or convertible at the end of each reporting period, including potential voting rights held by the Group or other entities, are considered when assessing whether an entity has significant influence.

Investments in associates are accounted for using the equity method from the date that significant influence commences until the date that significant influence ceases.

Investments in associates are initially recognized at acquisition cost, including any cost directly attributable to the acquisition and any consideration receivable or payable contingent on future events or on compliance with certain conditions.

The excess of the cost of the investment over the Group's share of the fair values of the identifiable net assets is recognized as goodwill, which is included in the carrying amount of the investment. Any shortfall, once the cost of the investment and the identification and measurement of the associate's net assets have been evaluated, is recognized as income when determining the investor's share of the profit and loss of the associate for the year in which it was acquired.

The accounting policies of associates have been harmonized in terms of timing and measurement, applying the policies described for subsidiaries.

The Group's share of the profit and loss of an associate from the date of acquisition is recognized as an increase or decrease in the value of the investments, with a credit or debit to share of the profit and loss for the year of "equity-accounted investees" in the consolidated statement of profit and loss (consolidated statement of comprehensive income). The Group's share of other comprehensive income of associates from the date of acquisition is recognized as an increase or decrease in the investments in associates with a balancing entry recognized by type in other comprehensive income. The distribution of dividends is recognized as a decrease in the value of the investment. The Group's share of profit and loss, including impairment losses recognized by the associates, is calculated based on income and expenses arising from application of the acquisition method.

The Group's share of the profit and loss of an associate and changes in equity is calculated to the extent of the Group's interest in the associate at year end and does not reflect the possible exercise or conversion of potential voting rights. However, the Group's share is calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of associates.

Information on the subsidiaries and associates included in the consolidated Group is presented in Appendix I.

(b) Business combinations

On the date of transition to IFRS-EU, 1 January 2004, the Group applied the exception permitted under IFRS 1 "First-time adoption of International Financial Reporting Standards", whereby only those business combinations performed as from 1 January 2004 have been recognized using the acquisition method. Entities acquired prior to that date were recognized in accordance with accounting prevailing at that time, taking into account the necessary corrections and adjustments at the transition date.

The Group applies the revised IFRS 3 "Business combinations" in transactions made subsequent to 1 January 2010.

The Group applies the acquisition method for business combinations.

(4) Significant Accounting Policies (Continued)

The acquisition date is the date on which the Group obtains control of the acquiree.

Business combinations made subsequent to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, equity instruments issued and any additional consideration contingent on future events or the fulfilment of certain conditions, in exchange for control of the acquiree.

The consideration paid excludes all amounts that do not form part of the exchange for the acquired business. Acquisition-related costs are accounted for as expenses when incurred. Share increase costs are recognized as equity when the increase takes place and borrowing costs are deducted from the financial liability when it is recognized.

At the acquisition date the Group recognizes at fair value the assets acquired and liabilities assumed. Liabilities assumed include any contingent liabilities that represent present obligations arising from past events for which the fair value can be reliably measured. The Group also recognizes indemnification assets transferred by the seller at the same time and following the same measurement criteria as the item that is subject to indemnification from the acquired business, taking into consideration, where applicable, the insolvency risk and any contractual limit on the indemnity amount.

This criterion does not include non-current assets or disposal groups of assets which are classified as held for sale, long-term defined benefit employee benefit liabilities, share-based payment transactions, deferred tax assets and liabilities and intangible assets arising from the acquisition of previously transferred rights.

Assumed assets and liabilities are classified and designated for subsequent measurement in accordance with the contractual terms, economic conditions, operating or accounting policies and other factors that exist at the acquisition date, except for leases and insurance contracts.

The excess between the consideration transferred and the value of net assets acquired and liabilities assumed, less the value assigned to non-controlling interests, is recognized as goodwill. Where applicable, any shortfall, after evaluating the consideration transferred, the value assigned to non-controlling interests and the identification and measurement of net assets acquired, is recognized in profit and loss.

When a business combination has been provisionally determined, net identifiable assets have initially been recognized at their provisional value, and any adjustments made during the measurement period have been recorded as if they had been known at that date. Where applicable, comparative figures for the prior year have been restated. Adjustments to the provisional values only reflect information relating to events and circumstances existing at the acquisition date and which, had they been known, would have affected the amounts recognized at that date. Once this period has elapsed, adjustments are only made to initial values when errors must be corrected. Any potential benefits arising from tax losses and other deferred tax assets of the acquiree that have not been recorded as they did not qualify for recognition at the acquisition date, are accounted for as income tax revenue, provided the adjustments were not made during the measurement period.

The contingent consideration is classified in accordance with underlying contractual terms as a financial asset or financial liability, equity instrument or provision. Provided that subsequent changes to the fair value of a financial asset or financial liability do not relate to an adjustment of the measurement period, they are recognized in consolidated profit and loss. The contingent consideration classified, where applicable, as equity is not subject to subsequent change, with settlement being recognized in equity. The contingent consideration classified, where applicable, as a provision is recognized subsequently in accordance with the relevant measurement standard.

(4) Significant Accounting Policies (Continued)

Business combinations made prior to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, and equity instruments issued by the Group, in exchange for control of the acquiree, plus any costs directly attributable to the business combination. Any additional consideration contingent on future events or the fulfilment of certain conditions is included in the cost of the combination provided that it is probable that an outflow of resources embodying economic benefits will be required and the amount of the obligation can be reliably estimated. Subsequent recognition of contingent considerations or subsequent variations to contingent considerations is recognized as a prospective adjustment to the cost of the business combination.

Where the cost of the business combination exceeds the Group's interest in the fair value of the identifiable net assets of the entity acquired, the difference is recognized as goodwill, whilst the shortfall, once the costs of the business combination and the fair values of net assets acquired have been reconsidered, is recognized in profit and loss.

(c) Non-controlling interests

Non-controlling interests in subsidiaries acquired after 1 January 2004 are recognized at the acquisition date at the proportional part of the fair value of the identifiable net assets. Non-controlling interests in subsidiaries acquired prior to the transition date were recognized at the proportional part of the equity of the subsidiaries at the date of first consolidation.

Non-controlling interests are disclosed in the consolidated balance sheet under equity separately from equity attributable to the Parent. Non-controlling interests' share in consolidated profit and loss for the year (and in consolidated comprehensive income for the year) is disclosed separately in the consolidated statement of profit and loss (consolidated statement of comprehensive income).

The consolidated profit and loss for the year, consolidated comprehensive income and changes in equity of the subsidiaries attributable to the Group and non-controlling interests after consolidation adjustments and eliminations, is determined in accordance with the percentage ownership at year end, without considering the possible exercise or conversion of potential voting rights. However, Group and non-controlling interests are calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of subsidiaries.

Profit and loss and each component of other comprehensive income are assigned to equity attributable to shareholders of the Parent and to non-controlling interests in proportion to their interest, although this implies a balance receivable from non-controlling interests. Agreements signed between the Group and the non-controlling interests are recognized as a separate transaction.

The increase and reduction of non-controlling interests in a subsidiary in which control is retained is recognized as an equity instrument transaction. Consequently, no new acquisition cost arises on increases, nor is a gain recorded on reductions; rather, the difference between the consideration transferred or received and the carrying amount of the non-controlling interests is recognized in the reserves of the investor, without prejudice to reclassifying consolidation reserves and reallocating other comprehensive income between the Group and the non-controlling interests. When a Group's interest in a subsidiary diminishes, non-controlling interests are recognized at their share of the net consolidated assets, including goodwill.

(4) Significant Accounting Policies (Continued)

(d) Joint arrangements

Joint arrangements are those in which there is a contractual agreement to share the control over an economic activity, in such a way that the decisions over relevant activities require the unanimous consent of the Group and the remaining venturers.

Investments in joint arrangements are accounted for using the equity method.

The acquisition cost of investments in joint arrangements is determined consistently with that established for investments in associates.

(e) Foreign currency transactions and balances

(i) *Functional and presentation currency*

The consolidated annual accounts are presented in thousands of Euros, which is the functional and presentation currency of the Parent.

(ii) *Foreign currency transactions, balances and cash flows*

Foreign currency transactions are translated into the functional currency using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from applying the exchange rate at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies have been translated into thousands of Euros at the closing rate, while non-monetary assets and liabilities measured at historical cost have been translated at the exchange rate prevailing at the transaction date. Non-monetary assets measured at fair value have been translated into thousands of Euros at the exchange rate at the date that the fair value was determined.

In the consolidated statement of cash flows, cash flows from foreign currency transactions have been translated into thousands of Euros at the exchange rates prevailing at the dates the cash flows occur. The effect of exchange rate fluctuations on cash and cash equivalents denominated in foreign currencies is recognized separately in the statement of cash flows as "Effect of exchange rate fluctuations on cash and cash equivalents".

Exchange gains and losses arising on the settlement of foreign currency transactions and the translation into thousands of Euros of monetary assets and liabilities denominated in foreign currencies are recognized in profit and loss.

(iii) *Translation of foreign operations*

The translation into thousands of Euros of foreign operations for which the functional currency is not the currency of a hyperinflationary economy is based on the following criteria:

- Assets and liabilities, including goodwill and net asset adjustments derived from the acquisition of the operations, including comparative amounts, are translated at the closing rate at the reporting date;
- Income and expenses, including comparative amounts, are translated using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from using the exchange rate at the date of the transaction;
- Translation differences resulting from application of the above criteria are recognized in other comprehensive income.

(4) Significant Accounting Policies (Continued)

(f) Borrowing costs

In accordance with IAS 23 "Borrowing Costs", since 1 January 2009 the Group recognizes borrowing costs directly attributable to the purchase, construction or production of qualifying assets as an increase in the value of these assets. Qualifying assets are those which require a substantial period of time before they can be used or sold. To the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalization is determined as the actual borrowing costs incurred, less any investment income on the temporary investment of those funds. Capitalized borrowing costs corresponding to general borrowing are calculated as the weighted average of the qualifying assets without considering specific funds. The amount of borrowing costs capitalized cannot exceed the amount of borrowing costs incurred during that period. The capitalized borrowing costs include adjustments to the carrying amount of financial liabilities arising from the effective portion of hedges entered into by the Group.

The Group begins capitalizing borrowing costs as part of the cost of a qualifying asset when it incurs expenditure for the asset, interest is accrued, and it undertakes activities that are necessary to prepare the asset for its intended use or sale, and ceases capitalizing borrowing costs when all or substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete. Nevertheless, capitalization of borrowing costs is suspended when active development is interrupted for extended periods.

(g) Property, plant and equipment

(i) *Initial recognition*

Property, plant and equipment are recognized at cost or deemed cost, less accumulated depreciation and any accumulated impairment losses. The cost of self-constructed assets is determined using the same principles as for an acquired asset, while also considering the criteria applicable to production costs of inventories. Capitalized production costs are recognized by allocating the costs attributable to the asset to "Self-constructed non-current assets" in the consolidated statement of profit and loss.

At 1 January 2004 the Group opted to apply the exemption regarding fair value and revaluation as deemed cost as permitted by IFRS 1 First time Adoption of International Financial Reporting Standards.

(ii) *Depreciation*

Property, plant and equipment are depreciated by allocating the depreciable amount of an asset on a systematic basis over its useful life. The depreciable amount is the cost or deemed cost of an asset, less its residual value. The Group determines the depreciation charge separately for each item for a component of property, plant and equipment with a cost that is significant in relation to the total cost of the asset.

Property, plant and equipment are depreciated using the following criteria:

	Depreciation method	Rates
Buildings	Straight line	1%-3%
Other property, technical equipment and machinery	Straight line	4%-10%
Other property, plant and equipment	Straight line	7%-33%

The Group reviews residual values, useful lives and depreciation methods at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(4) Significant Accounting Policies (Continued)

(iii) *Subsequent recognition*

Subsequent to initial recognition of the asset, only those costs incurred which will probably generate future profits and for which the amount may reliably be measured are capitalized. Costs of day-to-day servicing are recognized in profit and loss as incurred.

Replacements of property, plant and equipment which qualify for capitalization are recognized as a reduction in the carrying amount of the items replaced. Where the cost of the replaced items has not been depreciated independently and it is not possible to determine the respective carrying amount, the replacement cost is used as indicative of the cost of items at the time of acquisition or construction.

(iv) *Impairment*

The Group tests for impairment and reversals of impairment losses on property, plant and equipment based on the criteria set out in note 4(i) below.

(h) Intangible assets

(i) *Goodwill*

Goodwill is generated on the business combinations and is calculated using the criteria described in the section on business combinations.

Goodwill is not amortized, but is tested for impairment annually or more frequently whenever there is an indication that goodwill may be impaired. Goodwill acquired in business combinations is allocated to the cash-generating units (CGUs) or groups of CGUs which are expected to benefit from the synergies of the business combination and the criteria described in note 7 are applied. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

(ii) *Internally generated intangible assets*

Any research and development expenditure incurred during the research phase of projects is recognized as an expense when incurred.

Costs related with development activities are capitalized when:

- The Group has technical studies that demonstrate the feasibility of the production process;
- The Group has undertaken a commitment to complete production of the asset, to make it available for sale or internal use;
- The asset will generate sufficient future economic benefits;
- The Group has sufficient technical and financial resources to complete development of the asset and has devised budget control and cost accounting systems that enable monitoring of budgetary costs, modifications and the expenditure actually attributable to the different projects.

The cost of internally generated assets by the Group is calculated using the same criteria established for determining production costs of inventories. The production cost is capitalized by allocating the costs attributable to the asset to self-constructed non-current assets in the consolidated statement of profit and loss.

Expenditure on activities that contribute to increasing the value of the different businesses in which the Group as a whole operates is expensed when incurred. Replacements or subsequent costs incurred on intangible assets are generally recognized as an expense, except where they increase the future economic benefits expected to be generated by the assets.

(4) Significant Accounting Policies (Continued)

(iii) *Other intangible assets*

Other intangible assets are carried at cost, or at fair value if they arise on business combinations, less accumulated amortization and impairment losses.

Intangible assets with indefinite useful lives are not amortized but tested for impairment at least annually.

(iv) *Intangible assets acquired in business combinations*

The cost of identifiable intangible assets acquired in the business combination of Hologic includes the fair value of the R&D projects and the Intellectual Property-Patents.

The cost of identifiable intangible assets acquired in the business combination of Novartis includes the fair value of the existing royalty agreements.

The cost of identifiable intangible assets acquired in the business combination of the Progenika Group includes the fair value of the currently marketed products sold and which are classified under "Other intangible assets" and "Development costs".

The cost of identifiable intangible assets acquired in the Talecris business combination includes the fair value of currently marketed products sold and which are classified under "Other intangible assets".

(v) *Useful life and amortization rates*

The Group assesses whether the useful life of each intangible asset acquired is finite or indefinite. An intangible asset is regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset will generate net cash inflows.

Intangible assets with finite useful lives are amortized by allocating the depreciable amount of an asset on a systematic basis over its useful life, by applying the following criteria:

	Amortisation method	Rates
Development expenses	Straight line	10%
Concessions, patents, licences, trademarks and similar	Straight line	7%-20%
Computer software	Straight line	33%
Currently marketed products	Straight line	3%-10%

The depreciable amount is the cost or deemed cost of an asset, less its residual value.

The Group does not consider the residual value of its intangible assets to be material. The Group reviews the residual value, useful life and amortization method for intangible assets at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(i) Impairment of goodwill, other intangible assets and other non-financial assets subject to depreciation or amortization

The Group evaluates whether there are indications of possible impairment losses on non-financial assets subject to amortization or depreciation, to verify whether the carrying amount of these assets exceeds the recoverable amount.

The Group tests goodwill, intangible assets with indefinite useful lives and intangible assets with finite useful lives that are not available for use for potential impairment at least annually, irrespective of whether there is any indication that the assets may be impaired.

The recoverable amount of the assets is the higher of their fair value less costs of disposal and their value in use. An asset's value in use is calculated based on an estimate of the future cash flows expected to derive from the use of the asset, expectations about possible variations in the amount or timing of those future

(4) Significant Accounting Policies (Continued)

cash flows, the time value of money, the price for bearing the uncertainty inherent in the asset and other factors that market participants would reflect in pricing the future cash flows deriving from the asset.

Negative differences arising from comparison of the carrying amounts of the assets with their recoverable amounts are recognized in the consolidated statement of profit and loss. Recoverable amount is determined for each individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the cash-generating unit (CGU) to which the asset belongs.

Impairment losses recognized for cash-generating units are first allocated to reduce, where applicable, the carrying amount of goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset. The carrying amount of each asset may not be reduced below the highest of its fair value less costs of disposal, its value in use and zero.

At the end of each reporting period the Group assesses whether there is any indication that an impairment loss recognized in prior periods may no longer exist or may have decreased. Impairment losses on goodwill are not reversible. Impairment losses on other assets are only reversed if there has been a change in the estimates used to calculate the recoverable amount of the asset.

A reversal of an impairment loss is recognized in consolidated profit and loss. The increased carrying amount of an asset attributable to a reversal of an impairment loss may not exceed the carrying amount that would have been determined, net of depreciation or amortization, had no impairment loss been recognized.

A reversal of an impairment loss for a CGU is allocated to the assets of each unit, except goodwill, pro rata with the carrying amounts of those assets. The carrying amount of an asset may not be increased above the lower of its recoverable amount and the carrying amount that would have been disclosed, net of amortization or depreciation, had no impairment loss been recognized.

(j) Leases

(i) *Lessee accounting records*

The Group has rights to use certain assets through lease contracts.

Leases in which the Group assumes substantially all the risks and rewards incidental to ownership are classified as finance leases, otherwise they are classified as operating leases.

- Finance leases

  At the commencement of the lease term, the Group recognizes finance leases as assets and liabilities at the lower of the fair value of the leased asset and the present value of the minimum lease payments. Initial direct costs are added to the asset's carrying amount. Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are recognized as an expense in the years in which they are incurred.

- Operating leases

  Lease payments under an operating lease (excluding incentives) are recognized as an expense on a straight-line basis unless another systematic basis is representative of the time pattern of the user's benefit.

(4) Significant Accounting Policies (Continued)

(ii) *Leasehold investments*

Non-current investments in properties leased from third parties are recognized on the basis of the same criteria for property, plant and equipment. Investments are amortized over the lower of their useful lives and the term of the lease contract. The lease term is consistent with that established for recognition of the lease.

(iii) *Sale and leaseback transactions*

Any profit on sale and leaseback transactions that meet the conditions of a finance lease is deferred over the term of the lease.

When the leaseback is classified as an operating lease:

- If the transaction is established at fair value, any profit and loss on the sale is recognized immediately in the consolidated statement of profit and loss for the year;
- If the sale price is below fair value, any profit and loss is recognized immediately in the consolidated statement of profit and loss. However, if the loss is compensated for by future lease payments at below market price, it is deferred in proportion to the lease payments over the period for which the asset is to be used.

(k) Financial instruments

(i) *Classification of financial instruments*

Financial instruments are classified on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement and the definitions of a financial liability, a financial asset and an equity instrument set out in IAS 32, Financial Instruments: Presentation.

Financial instruments are classified into the following categories for valuation purposes: financial assets and financial liabilities at fair value through profit and loss, loans and receivables, held-to-maturity investments, available-for-sale financial assets and financial liabilities. Financial instruments are classified into different categories based on the nature of the instruments and the Group's intentions on initial recognition.

Regular way purchases and sales of financial assets are recognized using trade date accounting, i.e. when the Group commits itself to purchase or sell an asset.

a) Financial assets and liabilities at fair value through profit and loss

Financial assets and financial liabilities at fair value through profit and loss are those which are classified as held for trading or which the Group designated as such on initial recognition.

A financial asset or financial liability is classified as held for trading if:

- It is acquired or incurred principally for the purpose of selling or repurchasing it in the near term;
- It forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking, or
- It is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

Financial assets and financial liabilities at fair value through profit and loss are initially recognized at fair value. Transaction costs directly attributable to the acquisition or issue are recognized as an expense when incurred.

(4) Significant Accounting Policies (Continued)

After initial recognition, they are recognized at fair value through profit and loss.

The Group does not reclassify any financial assets or liabilities from or to this category while they are recognized in the consolidated balance sheet.

b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, other than those classified in other financial asset categories. These assets are recognized initially at fair value, including transaction costs, and subsequently measured at amortized cost using the effective interest method.

c) Financial assets and financial liabilities carried at cost

Investments in equity instruments whose fair value cannot be reliably measured and derivative instruments that are linked to these instruments and that must be settled by delivery of such unquoted equity instruments, are measured at cost. Nonetheless, if the financial assets or liabilities can be reliably measured subsequently on an ongoing basis, they are accounted for at fair value and any gain or loss is recognized in accordance with their classification.

(ii) *Offsetting principles*

A financial asset and a financial liability are offset only when the Group currently has the legally enforceable right to offset the recognized amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

(iii) *Fair value*

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorized within different levels of a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2: inputs other than prices included in Level 1 that are observable for the asset or liability, either directly (i.e. derived from prices) or indirectly.
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability are categorized within different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

(iv) *Amortized cost*

The amortized cost of a financial asset or financial liability is the amount at which the financial asset or financial liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, and minus any reduction for impairment or uncollectibility.

(4) Significant Accounting Policies (Continued)

(v) *Impairment of financial assets carried at cost*

The amount of the impairment loss on assets carried at cost is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses cannot be reversed and are therefore recognized directly against the value of the asset and not as an allowance account.

(vi) *Impairment of financial assets carried at amortized cost*

In the case of financial assets carried at amortized cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. For variable income financial assets, the effective interest rate corresponding to the measurement date under the contractual conditions is used.

The Group recognizes impairment losses and unrecoverable loans and receivables and debt instruments by recognizing an allowance account for financial assets. When impairment and uncollectibility are considered irreversible, their carrying amount is eliminated against the allowance account.

The impairment loss is recognized in profit and loss and may be reversed in subsequent periods if the decrease can be objectively related to an event occurring after the impairment has been recognized. The loss can only be reversed to the limit of the amortized cost of the assets had the impairment loss not been recognized. The impairment loss is reversed against the allowance account.

(vii) *Available for sale financial assets*

Available for sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as loans and receivables, held-to-maturity investments or financial assets at fair value through profit and loss.

A financial asset that the Group pretends to held to maturity or that it is a loan or receivable can also be designated as available for sale in the initial recognition. This category usually includes all debt securities traded on active markets that have not been designated as held-to-maturity, as well as equity investments that have not been classified as fair value through profit and loss.

A gain or loss on an available for sale financial asset shall be recognized in other comprehensive income, except for impairment losses and foreign exchange gains and losses, until the financial asset is derecognized.

When a decline in the fair value of an available for sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income shall be reclassified from equity to profit and loss as a reclassification adjustment even though the financial asset has not been derecognized.

(viii) *Financial liabilities*

Financial liabilities, including trade and other payables, which are not classified at fair value through profit and loss, are initially recognized at fair value less any transaction costs that are directly attributable to the issue of the financial liability. After initial recognition, liabilities classified under this category are measured at amortized cost using the effective interest method.

(ix) *Derecognition of financial assets*

The Group applies the criteria for derecognition of financial assets to part of a financial asset or part of a group of similar financial assets or to a financial asset or group of similar financial assets.

(4) Significant Accounting Policies (Continued)

Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire or have been transferred and the Group has transferred substantially all the risks and rewards of ownership. Where the Group retains the contractual rights to receive cash flows, it only derecognizes financial assets when it has assumed a contractual obligation to pay the cash flows to one or more recipients and if the following requirements are met:

- Payment of the cash flows is conditional on their prior collection;
- The Group is unable to sell or pledge the financial asset, and
- The cash flows collected on behalf of the eventual recipients are remitted without material delay and the Group is not entitled to reinvest the cash flows. This criterion is not applicable to investments in cash or cash equivalents made by the Group during the settlement period from the collection date to the date of required remittance to the eventual recipients, provided that interest earned on such investments is passed on to the eventual recipients.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, it determines whether it has retained control of the financial asset. In this case:

- If the Group has not retained control, it derecognizes the financial asset and recognizes separately as assets or liabilities any rights and obligations created or retained in the transfer.
- If the Group has retained control, it continues to recognise the financial asset to the extent of its continuing involvement in the financial asset and recognizes an associated liability. The extent of the Group's continuing involvement in the transferred asset is the extent to which it is exposed to changes in the value of the transferred asset. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained. The associated liability is measured in such a way that the carrying amount of the transferred asset and the associated liability is equal to the amortized cost of the rights and obligations retained by the Group, if the transferred asset is measured at amortized cost, or to the fair value of the rights and obligations retained by the Group, if the transferred asset is measured at fair value. The Group continues to recognise any income arising on the transferred asset to the extent of its continuing involvement and recognizes any expense incurred on the associated liability. Recognized changes in the fair value of the transferred asset and the associated liability are accounted for consistently with each other in profit and loss or equity, following the general recognition criteria described previously, and are not offset.

If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the consideration received is recognized in liabilities. Transaction costs are recognized in profit and loss using the effective interest method.

(x) *Derecognition and modifications of financial liabilities*

A financial liability, or part of it, is derecognized when the Group either discharges the liability by paying the creditor, or is legally released from primary responsibility for the liability either by process of law or by the creditor.

The exchange of debt instruments between the Group and the counterparty or substantial modifications of initially recognized liabilities are accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability, providing the instruments have substantially different terms.

The Group considers the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability.

(4) Significant Accounting Policies (Continued)

If the exchange is accounted for as an extinguishment of the financial liability, any costs or fees incurred are recognized as part of the gain or loss on the extinguishment. If the exchange is not accounted for as an extinguishment, any costs or fees incurred adjust the carrying amount of the liability and are amortized over the remaining term of the modified liability.

The difference between the carrying amount of a financial liability, or part of a financial liability, extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit and loss.

(l) Equity instruments

The Group's acquisition of equity instruments of the Parent is recognized separately at cost of acquisition in the consolidated balance sheet as a reduction in equity, regardless of the motive of the purchase. Any gains or losses on transactions with treasury equity instruments are not recognized in consolidated profit and loss.

The subsequent redemption of Parent shares, where applicable, leads to a reduction in share capital in an amount equivalent to the par value of such shares. Any positive or negative difference between the cost of acquisition and the par value of the shares is debited or credited to reserves. Transaction costs related with treasury equity instruments, including issue costs related to a business combination, are accounted for as a reduction in equity, net of any tax effect.

(m) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The costs of conversion of inventories include costs directly related to the units of production and a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. The allocation of fixed indirect overheads is based on the higher of normal production capacity or actual production.

The raw material used to produce haemoderivatives is human plasma, which is obtained from our donation centers using the plasmapheresis method. The cost of inventories includes the amount paid to plasma donors, or the amount billed by the seller when purchased from third parties, as well as the cost of products and devices used in the collection process, rental expenses and storage. This plasma has to be stored before use, which is an essential part of the production process. During the storage period, the plasma undergoes various virological tests and should be kept in quarantine in accordance with FDA and European Medicines Agency regulations, in order to guarantee that all the plasma is suitable for use in the production process.

To the extent that plasma storage costs are necessary to the production process, they are included as cost of inventories.

Indirect costs such as general management and administration costs are recognized as expenses in the period in which they are incurred.

The cost of raw materials and other supplies and the cost of merchandise are allocated to each inventory unit on a weighted average cost basis.

The transformation cost is allocated to each inventory unit on a FIFO (first-in, first-out) basis.

The Group uses the same cost model for all inventories of the same nature and with a similar use.

(4) Significant Accounting Policies (Continued)

Volume discounts extended by suppliers are recognized as a reduction in the cost of inventories when it is probable that the conditions for discounts to be received will be met. Discounts for prompt payment are recognized as a reduction in the cost of the inventories acquired.

When the cost of inventories exceeds net realizable value, materials are written down to net realizable value, which is understood to be:

- For raw materials and other supplies, replacement cost. Nevertheless, raw materials and other supplies are not written down below cost if the finished goods into which they will be incorporated are expected to be sold at or above cost of production;
- Merchandise and finished goods, estimated selling price less costs to sell;
- Work in progress, the estimated selling price of related finished goods, less the estimated costs of completion and the estimated costs necessary to make the sale.

The previously recognized write-down is reversed against profit and loss when the circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances. The reversal of the write-down is limited to the lower of the cost and revised net realizable value of the inventories. Write-downs may be reversed with a credit to "Changes in inventories of finished goods and work in progress" and "Supplies".

(n) Cash and cash equivalents

Cash and cash equivalents include cash on hand and demand deposits in financial institutions. They also include other short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. An investment normally qualifies as a cash equivalent when it has a maturity of less than three months from the date of acquisition.

The Group classifies cash flows relating to interest received and paid as operating activities, and dividends received and distributed are classified under investing and financing activities, respectively.

(o) Government grants

Government grants are recognized when there is reasonable assurance that they will be received and that the Group will comply with the conditions attached.

(i) *Capital grants*

Outright capital grants are initially recognized as deferred income in the consolidated balance sheet. Income from capital grants is recognized in the consolidated statement of profit and loss in line with the depreciation of the corresponding financed assets.

(ii) *Operating grants*

Operating grants received to offset expenses or losses already incurred, or to provide immediate financial support not related to future disbursements, are recognized in the consolidated statement of profit and loss.

(iii) *Interest rate grants*

Financial liabilities comprising implicit assistance in the form of below-market interest rates are initially recognized at fair value. The difference between this value, adjusted where necessary for the issue costs of the financial liability and the amount received, is recognized as a government grant based on the nature of the grant awarded.

(4) Significant Accounting Policies (Continued)

(p) Employee benefits

(i) *Defined contribution plans*

The Group recognizes the contributions payable to a defined contribution plan in exchange for a service in the period in which contributions are accrued. Accrued contributions are recognized as an employee benefit expense in the corresponding consolidated statement of profit and loss in the year that the contribution was made.

(ii) *Termination benefits*

Termination benefits are recognized at the earlier of the date when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring that involves the payment of termination benefits.

For termination benefits payable as a result of an employee's decision to accept an offer of benefits, the time when the Group can no longer withdraw the offer of termination benefits is the earlier of when the employee accepts the offer and when a restriction on the Group's ability to withdraw the offer takes effect.

For termination benefits payable as a result of the Group's decision to make an employee redundant, the Group can no longer withdraw the offer when it has informed the affected employees or union representatives of the plan and the actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made. The plan must identify the number of employees to be made redundant, their job classifications or functions and their locations and the expected completion date. The plan must also establish the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.

If the Group expects to settle the termination benefits in full more than twelve months after year end, the liability is discounted using the market yield on high quality corporate bonds.

(iii) *Short-term employee benefits*

The Group recognizes the expected cost of short-term employee benefits in the form of accumulating compensated absences when the employees render service that increases their entitlement to future compensated absences. In the case of non-accumulating compensated absences, the expense is recognized when the absences occur.

The Group recognizes the expected cost of profit-sharing and bonus plans when it has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made.

(iv) *Restricted Share Unit Retention Plan (RSU)*

The Group gives share-based payments to certain employees who render services to the Company. The fair value of the services received is determined based on the estimated fair value of the shares given at the grant date. Because the equity instruments granted do not vest until the employees complete a specified period of service, those services are accounted for during the vesting period in the income statement as an expense for the year, with the corresponding increase in equity. The amount recognized corresponds to that settled once the agreed terms have been met and it will not be adjusted or revalued during the accrual period, as the commitment is settled in the form of shares.

The total amount recognized is calculated based on the incentive payable in shares, increasing in line with percentages agreed by the Group. If an employee decides to leave his/her job prior to the end of the accrual period, he/she will only receive the agreed incentive in the form of shares and the Company will be able to choose whether to settle in cash or using equity instruments.

(4) Significant Accounting Policies (Continued)

(q) Provisions

Provisions are recognized when the Group has a present obligation (legal or implicit) as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period, taking into account all risks and uncertainties surrounding the amount to be recognized as a provision and, where the time value of money is material, the financial effect of discounting provided that the expenditure to be made each period can be reliably estimated. The discount rate is a pre-tax rate that reflects the time value of money and the specific risks for which future cash flows associated with the provision have not been adjusted at each reporting date.

If it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed against the consolidated statement of profit and loss item where the corresponding expense was recognized.

(r) Revenue recognition

Revenue from the sale of goods or services is measured at the fair value of the consideration received or receivable. Revenue is presented net of VAT and any other amounts or taxes which are effectively collected on the behalf of third parties. Volume or other types of discounts for prompt payment are recognized as a reduction in revenues if considered probable at the time of revenue recognition.

(i) *Sale of goods*

The Group recognizes revenue from the sale of goods when:

- It has transferred to the buyer the significant risks and rewards of ownership of the goods;
- It retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue and the costs incurred or to be incurred can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the Group; and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

The Group participates in the government-managed Medicaid programs in the United States, accounting for Medicaid rebates by recognizing an accrual at the time a sale is recorded for an amount equal to the estimated claims for Medicaid rebates attributable to the sale. Medicaid rebates are estimated based on historical experience, legal interpretations of the applicable laws relating to the Medicaid program and any new information regarding changes in the program regulations and guidelines that would affect rebate amounts. Outstanding Medicaid claims, Medicaid payments and inventory levels are analyzed for each distribution channel and the accrual is adjusted periodically to reflect actual experience. While rebate payments are generally made in the following or subsequent quarter, any adjustments for actual experience have not been material.

As is common practice in the sector, the purchase contracts signed by some customers with the Group entitle these customers to price discounts for a minimum purchase volume, volume discounts or prompt payment discounts. The Group recognizes these discounts as a reduction in sales and receivables in the same month that the corresponding sales are invoiced based on the customer's actual purchase figures or on past experience when the customer's actual purchases will not be known until a later date.

In the USA, the Group enters into agreements with certain customers to establish contract pricing for the products, which these entities purchase from the authorized wholesaler or distributor (collectively,

(4) Significant Accounting Policies (Continued)

wholesalers) of their choice. Consequently, when the products are purchased from wholesalers by these entities at the contract price which is less than the price charged by the Group to the wholesaler, the Group provides the wholesaler with a credit referred to as a chargeback. The Group records the chargeback accrual at the time of the sale. The allowance for chargebacks is based on Group's estimate of the wholesaler inventory levels, and the expected sell-through of the products by the wholesalers at the contract price based on historical chargeback experience and other factors. The Group periodically monitors the factors that influence the provision for chargebacks, and makes adjustments when it considers that actual chargebacks may differ from established allowances. These adjustments occur in a relatively short period of time. As these chargebacks are typically settled within 30 to 45 days of the sale, adjustments for actual experience have not been material.

(ii) *Services rendered*

Revenues associated with the rendering of service transactions are recognized by reference to the stage of completion at the consolidated balance sheet date when the outcome of the transaction can be estimated reliably. The outcome of a transaction can be estimated reliably when revenues, the stage of completion, the costs incurred and the costs to complete the transaction can be estimated reliably and it is probable that the economic benefits derived from the transaction will flow to the Group.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of costs incurred that are recoverable.

(iii) *Interest income*

Until June 2012 the Group has been recognizing interest receivable from the different Social Security affiliated bodies in Spain, to which it provides goods or services, on an accrual basis, and only for those bodies to which historically claims have been made and from which interest has been collected. As a result of the terms imposed by the Spanish Government in 2012 regarding the waiver of late payment interest on overdue receivables, the Group modified its estimate regarding late payment interest. Since June 2012 the Group has only been recognizing late payment interest on receivables from Social Security affiliated bodies on the date on which delayed invoices are collected, as it is highly likely that they will be collected as of that date provided.

(s) Income taxes

The income tax expense or tax income for the year comprises current tax and deferred tax.

Current tax is the amount of income taxes payable or recoverable in respect of the consolidated taxable profit or consolidated tax loss for the year. Current tax assets or liabilities are measured at the amount expected to be paid to or recovered from the taxation authorities, using the tax rates and tax laws that have been enacted or substantially enacted at the reporting date.

Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences, whereas deferred tax assets are the amounts of income taxes recoverable in future periods in respect of deductible temporary differences, the carryforward of unused tax losses, and the carryforward of unused tax credits. Temporary differences are differences between the carrying amount of an asset or liability in the balance sheet and its tax base.

Current and deferred tax are recognized as income or an expense and included in profit and loss for the year, except to the extent that the tax arises from a transaction or event which is recognized, in the same or a different year, directly in equity, or from a business combination.

(4) Significant Accounting Policies (Continued)

(i) *Taxable temporary differences*

Taxable temporary differences are recognized in all cases except where:

- They arise from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;
- They are associated with investments in subsidiaries over which the Group is able to control the timing of the reversal of the temporary difference and it is not probable that the temporary difference will reverse in the foreseeable future.

(ii) *Deductible temporary differences*

Deductible temporary differences are recognized provided that:

- It is probable that sufficient taxable income will be available against which the deductible temporary difference can be utilized, unless the differences arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;
- The temporary differences are associated with investments in subsidiaries to the extent that the difference will reverse in the foreseeable future and sufficient taxable income is expected to be generated against which the temporary difference can be offset.

Tax planning opportunities are only considered when assessing the recoverability of deferred tax assets and if the Group intends to use these opportunities or it is probable that they will be utilized.

(iii) *Measurement*

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the years when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted. The tax consequences that would follow from the manner in which the Group expects to recover or settle the carrying amount of its assets or liabilities are also reflected in the measurement of deferred tax assets and liabilities.

At year end the Group reviews the fair value of deferred tax assets to write down the balance if it is not probable that sufficient taxable income will be available to apply the tax asset.

Deferred tax assets which do not meet the above conditions are not recognized in the consolidated balance sheet. At year end the Group assesses whether deferred tax assets which were previously not recognized now meet the conditions for recognition.

(iv) *Offset and classification*

The Group only offsets current tax assets and current tax liabilities if it has a legally enforceable right to set off the recognized amounts and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

The Group only offsets deferred tax assets and liabilities where it has a legally enforceable right, where these relate to income taxes levied by the same taxation authority and where the taxation authority permits the entity to settle on a net basis, or to realize the asset and settle the liability simultaneously for each of the future years in which significant amounts of deferred tax assets or liabilities are expected to be settled or recovered.

Deferred tax assets and liabilities are recognized in the consolidated balance sheet under non-current assets or liabilities, irrespective of the expected date of recovery or settlement.

(4) Significant Accounting Policies (Continued)

(t) Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's chief operating decision maker to make decisions about resources to be allocated to the segment, assess its performance and, based on which, differentiated financial information is available.

(u) Classification of assets and liabilities as current and non-current

The Group classifies assets and liabilities in the consolidated balance sheet as current and non-current. Current assets and liabilities are determined as follows:

- Assets are classified as current when they are expected to be realized or are intended for sale or consumption in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are expected to be realized within twelve months after the reporting date or are cash or a cash equivalent, unless the assets may not be exchanged or used to settle a liability for at least twelve months after the reporting date.
- Liabilities are classified as current when they are expected to be settled in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are due to be settled within twelve months after the reporting date or the Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date.
- Financial liabilities are classified as current when they are due to be settled within twelve months after the reporting date, even if the original term was for a period longer than twelve months, and an agreement to refinance, or to reschedule payments, on a long-term basis is completed after the reporting date and before the consolidated annual accounts are authorized for issue.

(v) Environmental issues

The Group takes measures to prevent, reduce or repair the damage caused to the environment by its activities.

Property, plant and equipment acquired by the Group for long-term use to minimize the environmental impact of its activity and protect and improve the environment, including the reduction and elimination of future pollution from the Group's operations, are recognized as assets applying the measurement, presentation and disclosure criteria described in note 4(g).

(5) Financial Risk Management Policy

(a) General

The Group is exposed to the following risks associated with the use of financial instruments:

- Credit risk
- Liquidity risk
- Market risk: includes interest rate risk, currency risk and other price risks.

This note provides information on the Group's exposure to each of these risks, the Group's objectives and procedures to measure and mitigate this risk, and the Group's capital management strategy. More exhaustive quantitative information is disclosed in note 30 to the consolidated annual accounts.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, define appropriate risk limits and controls and to control risks and comply with limits. Risk management policies and procedures are reviewed regularly so that they reflect changes in market conditions and the

(5) Financial Risk Management Policy (Continued)

Group's activities. The Group's management procedures and rules are designed to create a strict and constructive control environment in which all employees understand their duties and obligations.

The Group's Audit Committee supervises how management controls compliance with the Group's risk management procedures and policies and reviews whether the risk management policy is suitable considering the risks to which the Group is exposed. This committee is assisted by Internal Audit which acts as supervisor. Internal Audit performs regular and ad hoc reviews of the risk management controls and procedures and reports its findings to the Audit Committee.

Credit risk

Credit risk is the risk to which the Group is exposed in the event that a customer or counterparty to a financial instrument fails to discharge a contractual obligation, and mainly results from trade receivables and the Group's investments in financial assets.

Trade receivables

The Group does not predict any significant insolvency risks as a result of delays in receiving payment from some European countries due to their current economic situation. The main risk in these countries is that of late payments, which is mitigated through the possibility of claiming interest as foreseen by prevailing legislation. No significant bad debt or late payment issues have been detected for sales to private entities.

The Group recognizes impairment based on its best estimate of the losses incurred on trade and other receivables. The main impairment losses recognized are due to specific losses relating to individually identified risks. At year end, these impairment losses are immaterial.

Details of exposure to credit risk are disclosed in note 30.

Liquidity risk

Liquidity risk is the risk that the Group cannot meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure where possible, that it always has sufficient liquidity to settle its obligations at the maturity date, both in normal conditions and in times of tension, to avoid incurring unacceptable losses or tarnishing the Group's reputation.

The Group manages liquidity risk on a prudent basis, based on availability of cash and sufficient committed unused long-term credit facilities, enabling the Group to implement its business plans and carry out operations using stable and secure sources of financing.

On 6 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounts to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consists in a US Dollars 6,000 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total bond issuance amounted to Euros 1,000 million.

On 5 December 2017 the Group has received an additional loan from the European Investment Bank of up to Euros 85 million at a fixed interest rate for a period of ten years with a grace period of two years. The loan will be used to support certain investments in R&D which are mainly focused on searching for new applications for plasmatic proteins. On 28 October 2015, the Group received its first loan with the same entity and conditions for a total amount of Euros 100 million. At 31 December 2017, the amount in books for the loan received in 2015 is Euros 85 million.

(5) Financial Risk Management Policy (Continued)

At 31 December 2017 the Group has total cash and cash equivalents of Euros 887 million (Euros 895 million at 31 December 2016). The Group also has approximately Euros 381 million in unused credit facilities, including Euros 250 million on the revolving credit facility.

As in previous years, the Group continues with its quarterly program for optimization of working capital, which is mainly based on contracts to sell receivables without recourse in those countries with long collection periods.

Market risk

Market risk comprises the risk of changes in market prices, for example, exchange rates, interest rates, or the prices of equity instruments affecting the Group's revenues or the value of financial instruments it holds. The objective of managing market risk is to manage and control the Group's exposure to this risk within reasonable parameters at the same time as optimising returns.

(i) Currency risk

The Group operates internationally and is therefore exposed to currency risk when operating with foreign currencies, especially with regard to the US Dollar. Currency risk is associated with future commercial transactions, recognized assets and liabilities, and net investments in foreign operations.

The Group holds significant investments in foreign operations, the net assets of which are exposed to currency risk. The conversion risk affecting net assets of the Group's foreign operations in US Dollars is mitigated primarily through borrowings in this foreign currency.

The Group's main exposure to currency risk is with regard to the US Dollar, which is used in a significant percentage of transactions in foreign functional currencies.

Details of the Group's exposure to currency risk at 31 December 2017 and 2016 of the most significant financial instruments are shown in note 30.

(ii) Interest rate risk

The Group's interest rate risks arise from current and non-current borrowings. Borrowings at variable interest rates expose the Group to cash flow interest rate risks. Fixed-rate borrowings expose the Group to fair value interest rate risk.

The objective of the management of interest rate risk is to achieve a balance in the structure of the debt, keeping part of the external resources issued at a fixed rate and covering part of the variable rate debt through hedges.

A significant part of the financing obtained accrues interest at fixed rates. This fixed interest debt (Senior Unsecured Notes) amounts to Euros 1,000 million, which represents approximately 56% of the Group's total debt in Euros. The additional loans of Euros 170 million received from the European Investment Bank represent approximately 10% of the Group's total debt in Euros.

Senior debt in Euros represents approximately 12% of the Group's total Senior debt at 31 December 2017 and 31 December 2016.

Total fixed-interest debt represents a total of 19% of debt at 31 December 2017 (21% at 31 December 2016 considering total fixed-interest debt).

(iii) Market price risk

Price risk affecting raw materials is mitigated by the vertical integration of the haemoderivatives business in a highly-concentrated sector.

(5) Financial Risk Management Policy (Continued)

(b) Capital management

The directors' policy is to maintain a solid capital base in order to ensure investor, creditor and market confidence and sustain future business development. The board of directors defines and proposes the level of dividends paid to shareholders.

The directors consider various arguments to calculate capital structure:

- The directors control capital performance using rates of returns on equity (ROE). In 2017, the ROE stood at 18% (15% in December 2016). The ROE is calculated by dividing profit attributable to the Parent by the equity attributable to the Parent.

	Thousand of Euros	
	2016	2017
Profit attributable to the parent	545,456	662,700
Equity attributable to the parent	3,727,978	3,633,695
ROE	15%	18%

- In accordance with the senior secured debt contract, the Group is subject to compliance with some covenants. At 31 December 2017 and 2016, the Group complies with the covenants.
- Consideration of the Company's credit rating (see note 20 (d)).

The Parent held Class A and B treasury stock equivalent to 0.6% of its capital at 31 December 2017 (0.7% at 31 December 2016). The Group does not have a formal plan for repurchasing shares.

(6) Segment Reporting

In accordance with IFRS 8 "Operating Segments", financial information for operating segments is reported in the accompanying Appendix II, which forms an integral part of this note to the consolidated annual accounts.

Group companies are divided into four areas: companies from the industrial area, companies from the commercial area, companies from the services area and companies from the research area. Within each of these areas, activities are organized based on the nature of the products and services manufactured and marketed.

Assets, liabilities, income and expenses for segments include directly and reliably attributable items. Items which are not attributed to segments by the Group are:

- Balance sheet: cash and cash equivalents, current income tax assets and liabilities, deferred tax assets and liabilities and loans and borrowings.
- Statement of profit and loss: finance result and income tax.

(a) Operating segments

The operating segments defined by the steering committee are as follows:

- Bioscience: including all activities related with products derived from human plasma for therapeutic use.
- Hospital: comprising all non-biological pharmaceutical products and medical supplies manufactured by Group companies earmarked for hospital pharmacy. Products related with this business which the Group does not manufacture but markets as supplementary to its own products are also included.

(6) Segment Reporting (Continued)

- Diagnostic: including the marketing of diagnostic testing equipment, reagents and other equipment, manufactured by Group or other companies.
- Bio Supplies: since January 2017, the company is including all transactions related to biological products for non-therapeutic use in the new Bio Supplies Division resulting in a reclassification from Bioscience Division to Bio Supplies Division.
- Others: including the rendering of manufacturing services to third party companies.

As a result of the creation of the new Bio Supplies segment and Intersegments, the Group has reviewed the allocation of balances and transactions by segments. The comparative figures for years 2016 and 2015 have been restated accordingly.

Details of net sales by groups of products for 2017, 2016 and 2015 are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Bioscience	3,429,785	3,228,275	3,032,111
Haemoderivatives			
Diagnostic			
Transfusional medicine	679,692	640,443	667,886
Other diagnostic	23,377	23,540	23,566
Hospital			
Fluid therapy and nutrition	47,699	46,210	45,621
Hospital supplies	52,466	52,373	50,624
Bio supplies	66,791	24,387	24,466
Others	18,263	34,602	90,289
Total	4,318,073	4,049,830	3,934,563

The Group has concluded that the haemoderivative products are sufficiently alike to be considered as a whole for the following reasons:

- All these products are human plasma derivatives and are manufactured in a similar way.
- The customers and methods used to distribute these products are similar.
- All these products are subject to the same regulations regarding production and the same regulatory environment.

(b) Geographical information

Geographical information is grouped into four areas:

- United States of America and Canada
- Spain
- Rest of the European Union
- Rest of the world

The definition of these four segments is mainly due to the geographical level that the Group sets to manage its revenue as they respond to specific economic scenarios. The main framework of the Group is consistent with this geographical segment grouping, including the monitoring of its commercial operations and its information systems.

(6) Segment Reporting (Continued)

The financial information reported for geographical areas is based on sales to third parties in these markets as well as the location of assets.

(c) Main customer

Revenues from a Bioscience segment customer represent approximately 11.0% of the Group's total revenues (10.7% in 2016 and 10.1% in 2015).

(7) Goodwill

Details of and movement in this caption of the consolidated balance sheet at 31 December 2016 are as follows:

		Thousands of Euros		
	Segment	Balance at 31/12/2015	Translation differences	Balance at 31/12/2016
Net value				
Grifols UK.Ltd. (UK)	Bioscience	9,362	(1,337)	8,025
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	6,118
Biomat USA, Inc.(USA)	Bioscience	186,907	6,132	193,039
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,961	173	10,134
Grifols Therapeutics, Inc. (USA)	Bioscience	2,041,137	67,002	2,108,139
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	40,516
Grifols Diagnostic (Novartis) (USA, Switzerland and Hong Kong)	Diagnostic	1,232,358	39,666	1,272,024
		3,532,359	111,636	3,643,995

Details of and movement in this caption of the consolidated balance sheet at 31 December 2017 are as follows:

		Thousands of Euros			
	Segment	Balance at 31/12/2016	Business Combination	Translation differences	Balance at 31/12/2017
Net value					
Grifols UK.Ltd. (UK)	Bioscience	8,025	—	(280)	7,745
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	6,118
Biomat USA, Inc.(USA)	Bioscience	193,039	40,101	(27,886)	205,254
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	10,134	—	(591)	9,543
Grifols Therapeutics, Inc. (USA)	Bioscience	2,108,139	—	(255,234)	1,852,905
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	40,516
Grifols Diagnostic (Novartis & Hologic) (USA, Spain and Hong Kong)	Diagnostic	1,272,024	1,466,420	(302,537)	2,435,907
Kiro Grifols S.L. (Spain)	Hospital	—	26,510	—	26,510
		3,643,995	1,533,031	(586,528)	4,590,498
			(See note 3)		

(7) Goodwill (Continued)

Impairment testing:

As a result of the acquisition of Talecris in 2011, and for impairment testing purposes, the Group combines the CGUs allocated to the Bioscience segment, grouping them together at segment level, because substantial synergies were expected to arise on the acquisition of Talecris, and due to the vertical integration of the business and the lack of an independent organized market for the products. Because the synergies benefit the Bioscience segment globally they cannot be allocated to individual CGUs. The Bioscience segment represents the lowest level to which goodwill is allocated and is subject to control by Group management for internal control purposes.

Since the acquisition of Novartis' Diagnostic business unit in 2014, the Group combines Araclon, Progenika, Australia and recently Hologic's share of NAT donor screening unit acquisition into a single CGU for the Diagnostic business as the acquisition is supporting not only the vertically integration business but also cross-selling opportunities. In addition, for management purposes, the Group's management is focused on the business more than geographical areas or individual companies.

Due to the acquisition of an additional 40% stake of Kiro Grifols S.L., the Group has decided to group Kiro Grifols S.L. and Laboratorios Grifols S.L. into a single CGU for the Hospital business since the acquisition is supporting cross-selling opportunities.

The CGUs established by Management are:

- Bioscience
- Diagnostic
- Hospital

The recoverable amount of the Bioscience CGU was calculated based on its value in use calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

The recoverable amount of the Diagnostic CGU was calculated based on its fair value less costs of disposal calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

The recoverable amount of the Hospital CGU was calculated based on its fair value less costs of disposal calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

This value in use and fair value less costs of disposal calculations use cash flow projections for five years based on the financial budgets approved by management. Cash flows estimated as of the year in which stable growth in the CGU has been reached are extrapolated using the estimated growth rates indicated below.

The key assumptions used in calculating impairment of the CGUs for 2016 were as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	8.60%
Diagnostic	2%	10.30%

(7) Goodwill (Continued)

The key assumptions used in calculating impairment of the CGUs for 2017 have been as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	9.50%
Diagnostic	2%	10.60%
Hospital	1.40%	13.30%

Management determined budgeted gross margins based on past experience, investments in progress which would imply significant growth in production capacity and its forecast international market development. Perpetual growth rates are coherent with the forecasts included in industry reports. The discount rate used reflects specific risks related to the CGU.

As the acquisition of Hologic's NAT donor screening unit share and the acquisition for an additional stake of Kiro Grifols S.L. are recent transactions and as the recoverable amount of the Bioscience CGU is much higher than the carrying amount of the Bioscience segment's net assets, specific information from the impairment test sensitivity analysis is not included.

At 31 December 2017 Grifols' stock market capitalization totals Euros 15,379 million (Euros 12,020 million at 31 December 2016).

(8) Other Intangible Assets

Details of other intangible assets and movement during the years ended 31 December 2017 and 2016 are included in Appendix III, which forms an integral part of these notes to the consolidated annual accounts.

Intangible assets acquired from Talecris mainly include currently marketed products. Identifiable intangible assets correspond to Gamunex and have been recognized at fair value at the acquisition date of Talecris and classified as currently marketed products. Intangible assets recognized comprise the rights on the Gamunex product, its commercialization and distribution license, trademark, as well as relations with hospitals. Each of these components are closely linked and fully complementary, are subject to similar risks and have a similar regulatory approval process.

Intangible assets acquired from Progenika mainly include currently marketed products. Identifiable intangible assets correspond to blood, immunology and cardiovascular genotyping. These assets have been recognized at fair value at the acquisition date of Progenika and classified as currently marketed products.

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2016 is as follows:

	Thousands of Euros			
	Balance at 31/12/2015	Additions	Translation differences	Balance at 31/12/2016
Cost of currently marketed products—Gamunex	1,102,232	—	36,180	1,138,412
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(168,397)	(36,062)	(7,412)	(211,871)
Accumulated amortisation of currently marketed products—Progenika	(6,738)	(2,379)	—	(9,117)
Carrying amount of currently marketed products	950,889	(38,441)	28,768	941,216

(8) Other Intangible Assets (Continued)

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2017 is as follows:

	Thousands of Euros			
	Balance at 31/12/2016	Additions	Translation differences	Balance at 31/12/2017
Cost of currently marketed products—Gamunex	1,138,412	—	(137,828)	1,000,584
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(211,871)	(35,837)	28,136	(219,572)
Accumulated amortisation of currently marketed products—Progenika	(9,117)	(2,379)	—	(11,496)
Carrying amount of currently marketed products	941,216	(38,216)	(109,692)	793,308

The estimated useful life of the currently marketed products acquired from Talecris is considered limited, has been estimated at 30 years on the basis of the expected life cycle of the product (Gamunex) and is amortized on a straight-line basis.

At 31 December 2017 the residual useful life of currently marketed products is 23 years and 5 months (24 years and 5 months at 31 December 2016).

The estimated useful life of the currently marketed products acquired from Progenika is considered limited, has been estimated at 10 years on the basis of the expected life cycle of the product and is amortized on a straight-line basis.

At 31 December 2017 the residual useful life of currently marketed products acquired from Progenika is 5 years and 2 months (6 years and 2 months at 31 December 2016).

(a) Self—constructed intangible assets

At 31 December 2017 the Group has recognized Euros 49,782 thousand as self-constructed intangible assets (Euros 29,034 thousand at 31 December 2016).

(b) Purchase commitments

At 31 December 2017 the Group has intangible asset purchase commitments amounting to Euros 1,199 thousand (Euros 639 thousand at 31 December 2016).

(c) Intangible assets with indefinite useful lives and other intangible in progress

At 31 December 2017 the Group has plasma center licenses with indefinite useful lives under intangible assets for a carrying amount of Euros 26,631 thousand (Euros 30,075 thousand at 31 December 2016).

The Group has also an amount of Euros 183,281 thousand as development costs in progress (Euros 52,272 thousand at 31 December 2016). The main variance corresponds to the assets acquired from Hologic's business combination (see note 3(a)).

The Group has recognized an amount of Euros 4,235 thousand corresponding to payments relating to license rights due to the Aradigm acquisition (no amount was recognized at 31 December 2016).

(d) Result on disposal of intangible assets

Total losses incurred on disposals of intangible assets in 2017 amount to Euros 83 thousand (Euros 7,198 thousand of profit in 2016).

(8) Other Intangible Assets (Continued)

(e) Impairment testing

Indefinite-lived intangible assets have been allocated to the cash-generating unit (CGU) of the Bioscience segment. These assets have been tested for impairment together with goodwill (see note 7).

Impairment testing has been analyzed for each of the intangible assets in progress by calculating its recoverable amount based on their fair value.

As the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration did not recommend the approval for Linahiq™ as a treatment for non-cystic fibrosis bronchiectasis patients with chronic lung *Pseudomonas aeruginosa* infections, the intangible assets referred to it have been totally impaired. As a consequence, the group has impaired a total amount of Euros 63,675 thousand related to this product. This amount has been recognized in the Profit and Loss Statement as a R&D expense. Even that, the company has impaired the investment in this company and the convertible bonds (see notes 10 and 11(a)).

(9) Property, Plant and Equipment

Details of property, plant and equipment and movement in the consolidated balance sheet at 31 December 2017 and 2016 are included in Appendix IV, which forms an integral part of this note to the consolidated annual accounts.

Property, plant and development under construction at 31 December 2017 and 2016 mainly comprise investments made to extend the companies' equipment and to increase their productive capacity.

In 2017, the Group has capitalized interests for a total amount of Euros 8,839 thousand (Euros 13,019 thousand in 2016)

a) Insurance

Group policy is to contract sufficient insurance coverage for the risk of damage to property, plant and equipment. At 31 December 2017 the Group has a combined insurance policy for all Group companies, which more than adequately covers the carrying amount of all the Group's assets.

b) Losses on disposal of property, plant and equipment

Total losses incurred on disposals of property, plant and equipment for 2017 amount to Euros 1,468 thousand (Euros 4,021 thousand in 2016).

c) Assets under finance lease

The Group contracted the following types of property, plant and equipment under finance leases at 31 December 2016:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,213	(1,421)	792
Plant and machinery	13,336	(4,784)	8,552
	15,549	(6,205)	9,344

(9) Property, Plant and Equipment (Continued)

The Group has contracted the following types of property, plant and equipment under finance leases at 31 December 2017:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,545	(815)	1,730
Plant and machinery	14,249	(6,564)	7,685
	16,794	(7,379)	9,415

Details of minimum lease payments and the present value of finance lease liabilities, disclosed by maturity date, are detailed in note 20 (c).

d) Self—constructed property, plant and equipment

At 31 December 2017 the Group has recognized Euros 52,218 thousand as self -constructed property, plant and equipment (Euros 68,529 thousand at 31 December 2016).

e) Purchase commitments

At 31 December 2017 the Group has property, plant and equipment purchase commitments amounting to Euros 39,675 thousand (Euros 39,773 thousand at 31 December 2016).

f) Impairment

A group of assets forming part of the Hospital segment has been tested for impairment due to the decrease in the results of the segment and no impairment has been observed. The recoverable amount of the aforementioned assets is calculated based on the fair value less cost of disposal, using cash flow projections based on five-year financial budgets approved by management. Cash flows estimated as of the year in which stable growth has been reached by the assets are extrapolated using a pre-tax discount rate of 12.2% and a perpetual growth rate of 2% (10.3% and 2% respectively in fiscal year 2016).

(10) Equity Accounted Investees

Details of this caption in the consolidated balance sheet at 31 December 2017 and 2016 are as follows:

		Thousands of Euros		Thousands of Euros
	% ownership	31/12/2017	% ownership	31/12/2016
Aradigm Corporation	35.13%	—	35.13%	9,291
Kiro Grifols, S.L (see note 3(b))	90.00%	—	50.00%	13,888
Alkahest, Inc.	47.58%	30,559	47.58%	35,955
Albajuna Therapeutics, S.L	30.00%	1,956	30.00%	3,177
Interstate Blood Bank, Inc.	49.19%	27,936	49.19%	31,090
Bio Blood Components Inc.	48.97%	32,960	48.97%	38,725
Plasma Biological Services, LLC	48.90%	23,010	48.90%	25,890
Singulex, Inc.	19.33%	29,322	20.00%	43,329
GigaGen, Inc	43.96%	29,047	—	—
Access Biologicals LLC	49.00%	44,219	—	—
Aigües de Vilajuïga S.A.	50.00%	—	—	—
		219,009		201,345

(10) Equity Accounted Investees (Continued)

Movement in the investments in equity-accounted investees for the years ended at 31 December 2017, 2016 and 2015 have been as follows:

	Thousands of Euros		
	2017	2016	2015
Balance at 1 January	201,345	76,728	54,296
Acquisitions	80,685	136,072	33,039
Transfers	(16,000)	(29,059)	—
Share of profit / (losses)	(13,195)	6,933	(8,280)
Share of other comprehensive income / translation differences	(27,134)	10,671	2,673
Losses for Impairment	(6,692)	—	—
Collected dividends	—	—	(5,000)
Balance at 31 December	219,009	201,345	76,728

GigaGen Inc.

On 5 July 2017, Grifols through its 100% subsidiary Grifols Innovation and New Technologies Limited ("GIANT"), has acquired a 43.96% shareholding in GigaGen, Inc., a company based in San Francisco (USA) for the amount of US Dollars 35 million.

GIANT and GigaGen have also entered into a Research and Collaboration Agreement whereby in exchange of a collaboration fee of US Dollars 15 million in the aggregate, GigaGen will commit to carry out research activities to develop recombinant polyclonal immunoglobulin therapies derived from human B cells for the treatment of human diseases.

The summarized financial information of GigaGen, Inc. corresponding to the last available financial statements is included below with the carrying amount of the Group's interest. Information regarding the income statement is included only from the date of acquisition of the participation.

	Thousand of Euros	Thousand of USD
	31/12/2017	31/12/2017
Non-current assets	404	484
Current assets	21,910	26,277
Current liabilities	(180)	(216)
Total net assets (100%)	22,134	26,545
Group's share of net assets (43.96%)	9,730	11,669
Profit from continuing operations (100%)	(1,830)	(2,183)
Group's share of total comprehensive income (43.96%)	(804)	(960)

A reconciliation of the summarized financial information with the carrying amount of the Group's interest is as follows:

	Thousand of Euros
	31/12/2017
Group's share of net assets	9,730
Goodwill of equity method investment	19,317
Equity method accounted investment	29,047

(10) Equity Accounted Investees (Continued)

Movement in Gigagen's equity-accounted investment for the year ended 31 December 2017 is as follows:

	Thousand of Euros
	31/12/2017
Balance at 1 January	—
Acquisitions	31,752
Share of profit / (losses)	(804)
Share of other comprehensive income / translation differences	(1,595)
Impairment Losses	(306)
Balance at 31 December	29,047

Access Biologicals LLC.

On 12 January 2017, the group has announced the acquisition of 49% of the voting rights in Access Biologicals LLC, a company based in San Diego, California, USA, for the amount of US Dollar 51 million. Grifols has entered into an option agreement to purchase the remaining 51% voting rights in five years, in 2022. Grifols has also signed a supply agreement to sell to Access Biologicals biological products not meant for therapeutic use.

The principal business activity of Access Biologicals is the collection and manufacturing of an extensive portfolio of biologicals products. Combined with closed-loop material sourcing, it provides critical support for various markets such as in-vitro diagnostic manufacturing, biopharmaceutical, cell culture and diagnostic research & development.

The summarized financial information of Access Biologicals LLC corresponding to the last available financial statements is included below with the carrying amount of the Group's interest. Information regarding the income statement is included only from the date of acquisition of the participation.

	Thousand of Euros	Thousand of USD
	31/12/2017	31/12/2017
Non-current assets	1,221	1,464
Current assets	14,422	17,296
Non-current liabilities	(1,284)	(1,540)
Current liabilities	(3,023)	(3,626)
Total net assets (100%)	11,336	13,594
Group's share of net assets (49%)	5,555	6,661
Profit from continuing operations (100%)	3,734	4,129
Group's share of total comprehensive income (49%)	1,830	2,023

A reconciliation of the summarized financial information with the carrying amount of the Group's interest is as follows:

	Thousand of Euros
	31/12/2017
Group's share of net assets	5,555
Goodwill of equity method investment	38,664
Equity method accounted investment	44,219

(10) Equity Accounted Investees (Continued)

Movement in Access Biological's equity-accounted investment for the year ended 31 December 2017 is as follows:

	Thousand of Euros
	31/12/2017
Balance at 1 January	—
Acquisitions	48,383
Share of profit / (losses)	1,830
Share of other comprehensive income / translation differences	(5,994)
Balance at 31 December	44,219

Aradigm

As the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration did not recommend the approval for Linahiq™ as a treatment for non-cystic fibrosis bronchiectasis patients with chronic lung Pseudomonas aeruginosa infections, the investment in Aradigm have been totally impaired.

Consequently, the investment in Aradigm has been fully impaired for an amount of Euros 5,386 thousand in the statement of profit and loss.

Movement in the investment in Aradigm for the year ended 31 December 2017 and 31 December 2016 is as follows:

	Thousand of Euros	
	31/12/2017	31/12/2016
Balance at 1 January	9,291	19,799
Share of profit / (losses)	(4,324)	(10,185)
Share of other comprehensive income / translation differences	869	(323)
Impairment losses	(5,836)	—
Balance at 31 December	—	9,291

Singulex, Inc.

On 17 May 2016 Grifols subscribed and paid a capital increase for an amount of US Dollars 50 million (Euros 44,107 thousand) in the US company Singulex, Inc. ("Singulex"). As a result, Grifols holds a 19.33% common stock interest in Singulex on a fully diluted basis at a pre-money valuation of US Dollars 200 million. Grifols will be entitled to appoint a director to serve the board of directors of Singulex. As a result, Singulex granted Grifols an exclusive worldwide license for the use and sale of Singulex's technology for the blood donor and plasma screening to further ensure the safety of blood and plasma products.

Movement in Singulex, Inc.'s equity-accounted investment for the years ended 31 December 2016 and December 2017 is as follows:

	Thousand of Euros	
	31/12/2017	31/12/2016
Balance at 1 January	43,329	—
Acquisitions	—	44,107
Share of profit / (losses)	(9,335)	(3,890)
Share of other comprehensive income / translation differences	(4,672)	3,112
Balance at 31 December	29,322	43,329

(10) Equity Accounted Investees (Continued)

Interstate Blood Bank, Inc., Bio-Blood Components, Inc. and Plasma Biological Services, LLC

On 11 May 2016 Grifols acquired a 49.19% stake in Interstate Blood Bank, Inc. (IBBI), 48.97% of Bio-Blood Components, Inc. (Bio-Blood) and 48.90% of Plasma Biological Services, LLC (PBS) ("IBBI Group"), a group based in Memphis, TN, USA, for the price of US Dollars 100 million (Euros 88,215 thousand). GWWO also entered into an option agreement to purchase the remaining stakes for a price of US Dollars 100 million for an option price of US Dollars 10 million (Euros 9,007 thousand) (see notes 11 and 30). The purchase price and the call right were paid upon signature of the contract. The principal business activity of IBBI and its affiliates is the collection of plasma for the plasma fractionation industry, with 23 plasma collection centers, 9 blood donation centers and one laboratory.

Movement in Interstate Blood Bank, Inc., Bio-blood Components, Inc. and Plasma Biological Services, LLC.'s equity-accounted investment for the years ended 31 December 2016 and 2017 is as follows:

	Thousands of Euros			Thousands of Euros		
	31/12/2017			31/12/2016		
	IBBI	Bio-Blood	PBS	IBBI	Bio-Blood	PBS
Balance at 1 January	31,090	38,725	25,890	—	—	—
Acquisitions	—	—	—	28,229	36,168	23,818
Share of profit / (losses)	635	(1,181)	270	695	(166)	260
Share of other comprehensive income / translation differences	(3,789)	(4,584)	(3,150)	2,166	2,723	1,812
Balance at 31 December	27,936	32,960	23,010	31,090	38,725	25,890

Albajuna Therapeutics, S.L

In January 2016, Grifols acquired 30% of the equity of AlbaJuna Therapeutics, S.L. for Euros 3.75 million in the form of a cash payment to finance the development and production of therapeutic antibodies against HIV. The initial investment will be increased upon achievements of agreed development milestones through two payments for a total amount of Euros 7.25 million.

AlbaJuna Therapeutics is a spin-off from the AIDS Investigation Institute IrsiCaixa, jointly driven by Obra Social "la Caixa" and the Generalitat de Catalunya's Department of Health. It was founded to promote the preclinical and clinical development of monoclonal antibodies that both neutralize the HIV action in the human body and increase the activity of natural killer cells, which are responsible for the destruction of infected cells.

Kiro Grifols, S.L.

On 25 July 2017 the Group subscribed a capital increase in Kiro Grifols, S.L (formerly Kiro Robotics, S.L.) for an amount of Euros 12.8 million, which represents 40% of the voting and economic rights of Kiro Grifols. With this new operation, Grifols owns a total of 90% of the voting and economic rights of Kiro Grifols S.L., which is now considered part of the group, and starts using the global consolidation method instead of the equity method (see note 3(b)).

(11) Financial Assets

Details of non-current financial assets on the consolidated balance sheet at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Convertible Bond (a)	—	15,201
Non-current derivatives (b) (see note 30)	8,338	13,665
Non-current investment in quoted shares (see note 30)	38,708	29,998
Total Non-current financial assets measured at fair value	47,046	58,864
Convertible Bond (a)	—	25,000
Non-current guarantee deposits	4,820	4,603
Other non-current financial assets	1,346	1,078
Non-current loans to EEAA (c) (see note 31)	16,677	—
Total Non-current financial assets measured at amortized cost	22,843	30,681

Details of other current financial assets on the consolidated balance sheet at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Deposits and guarantees	702	957
Current loans to third parties	59	832
Current loans to associates (see note 31)	9,977	793
Total other current financial assets	10,738	2,582

(a) Convertible Bond

On 22 April 2016, the Group's subsidiary, Grifols Worldwide Operations Limited, subscribed convertible bonds for an amount of US Dollars 19,950 thousand (Euros 17,997 thousand) issued by Aradigm that bear at an interest rate of 9% and mature in 2021. The Group indirectly owns 35.13% of the common stock of Aradigm. Interest on the convertible bonds is payable on 1 May and 1 November of each year. At the date of these consolidated annual accounts Aradigm has paid the Group an amount of Euros 1,601 thousand on the convertible bonds (Euros 839 thousand at 31 December 2016). Upon the events described in the indenture governing the convertible bonds, the convertible bonds are convertible into common stock of Aradigm. At the date of these consolidated annual accounts, the conversion rate is 191.94 shares of Aradigm common stock per US Dollar 1,000 principal amount of convertible bonds.

As mentioned in note 8 (a), as the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration did not recommend approval for Linahiq™ as a treatment for non-cystic fibrosis bronchiectasis patients with chronic lung *Pseudomonas aeruginosa* infections, the Group has decided to impair all the financial assets referred to it. As a consequence, the financial assets related to the convertible bond of Aradigm have been impaired for a total amount of Euros 14,477 thousand (see note 26). This amount has been recognized in the Profit or Loss Statement as a financial result.

On February 2, 2017 Grifols Worldwide Operations Limited sold to Nomura International PLC the convertible bonds issued by TiGenix that the Group subscribed on March 6, 2015. The settlement amount was Euros 20.5 million resulting in a loss of Euros 5.5 million.

(11) Financial Assets (Continued)

(b) Non-current derivatives

Non-current derivatives includes an amount of Euros 8,338 thousand in respect of the call right for the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. units that are not owned by the Group. The call right can be exercised by the Group by delivering written notice of its intention at any time on or after February 1, 2019 and on or before April 30, 2019 (see note 11 (a)).

On December 31, 2017 the implicit derivative to the right of the convertible bond of Aradigm have been totally impaired due to the resolution of the Antimicrobial Drugs Advisory Committee of the US Food and Drug Administration. As a consequence, it has been recognized a financial impairment in the Profit and Loss Statement for a total amount of Euros 3,672 thousand.

(c) Non-current loans to EEAA

On 2 October 2017 the Group's subsidiary Grifols Diagnostic Solutions, Inc. subscribed notes for an amount of US Dollars 20,000 thousand (Euros 16,676 thousand) issued by Singulex, Inc., that bear at an interest rate of 5% and mature in September 19, 2019. The Group indirectly owns 19.33% of the common stock of Singulex Inc.

(12) Inventories

Details of inventories at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Goods for resale	105,013	166,272
Raw materials and supplies	454,371	423,326
Work in progress and semi-finished goods	592,612	584,279
Finished goods	477,297	469,054
	1,629,293	1,642,931

Movement in the inventory provision was as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Balance at 1 January	33,069	22,614	15,888
Net charge for the year	8,232	8,878	6,099
Cancellations for the year	(357)	(20)	(195)
Translation differences	(5,180)	1,597	822
Balance at 31 December	35,764	33,069	22,614

(13) Trade and Other Receivables

Details at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Trade receivables	302,685	431,510
Receivables from associates (note 31)	3,219	133
Bad debt provision (note 30)	(19,706)	(17,987)
Trade receivables	**286,198**	**413,656**
Other receivables (note 30)	7,485	13,705
Personnel	566	280
Advance payments (note 30)	11,181	6,775
Taxation authorities, VAT recoverable	20,105	17,768
Other public entities	1,344	3,771
Other receivables	**40,681**	**42,299**
Current income tax assets	**59,531**	**77,713**
	386,410	**533,668**

Other receivables

During 2017, 2016 and 2015 certain companies of the Grifols Group have sold receivables from several public entities, without recourse, to certain financial institutions. Under some of these contracts, the Group receives an initial payment which usually amounts to 90% of the nominal amount of the receivables sold less the associated sale and purchase costs. The deferred collection (equivalent to the rest of the nominal amount) will be made by the Group once the financial institution has collected the nominal amount of the receivables (or the interest, if the balances are received after more than 36 months, depending on the terms of each particular contract) and this amount is recognized in the consolidated balance sheet as a balance receivable from the financial institution. The deferred amount (equivalent to the continuing involvement) totals Euros 1,800 thousand at 31 December 2017 (Euros 2,560 thousand at 31 December 2016), which does not differ significantly from its fair value and coincides with the amount of maximum exposure to losses. The financial institution makes the initial payment when the sale is completed and therefore, the bad debt risk associated with this part of the nominal amount of the receivables is transferred. The Group has transferred the credit risk and control of the receivables to certain financial institutions and has therefore derecognized the asset transferred in the consolidated balance sheet, as the risks and rewards inherent to ownership have not been substantially retained.

Certain foreign Group companies have also entered into a contract to sell receivables without recourse to various financial institutions.

Total balances receivable without recourse sold to financial institutions through the aforementioned contracts in 2017 amount to Euros 912 million (Euros 870 million in 2016).

The finance cost of these operations for the Group totals approximately Euros 3,973 thousand which has been recognized under finance result in the consolidated statement of profit and loss for 2017 (Euros 4,885 thousand in 2016 and Euros 6,512 thousand in 2015) (see note 26).

Details of balances with related parties are shown in note 31.

(14) Cash and Cash Equivalents

Details of this caption of the consolidated balance sheet at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Current deposits	655,463	470,298
Cash in hand and at banks	231,058	424,711
Total cash and cash equivalents	886,521	895,009

(15) Equity

Details of consolidated equity and movement are shown in the consolidated statement of changes in equity.

(a) Share capital

At 31 December 2017 and 2016, the Company's share capital amounts to Euros 119,603,705 and comprises:

- Class A shares: 426,129,798 ordinary shares of Euros 0.25 par value each, subscribed and fully paid and of the same class and series.
- Class B shares: 261,425,110 non-voting preference shares of 0.05 Euros par value each, of the same class and series, and with the preferential rights set forth in the Company's by-laws.

On 4 January 2016 the Company's new shares resulting from the share split ruling on 3 December 2015 by the Company's board of directors started to be traded in accordance with the delegation of authorities by the shareholders at the general shareholders' meeting held on 29 May 2015.

The main characteristics of the Class B shares are as follows:

- Each Class B share entitles its holder to receive a minimum annual preferred dividend out of the distributable profits at the end of each year equal to Euros 0.01 per Class B share provided that the aggregate preferred dividend does not exceed the distributable profits of that year and a distribution of dividends has been approved by the Company's shareholders. This preferred dividend is not cumulative if sufficient distributable profits are not obtained in the period.
- Each Class B share is entitled to receive, in addition to the above-mentioned preferred dividend, the same dividends and other distributions as for one Grifols ordinary share.
- Each Class B share entitles the holder to its redemption under certain circumstances, if a takeover bid for all or part of the shares in the Company has been made, except if holders of Class B shares have been entitled to participate in the bid on the same terms as holders of Class A shares. The redemption terms and conditions reflected in the Company's by-laws limit the amount that may be redeemed, requiring that sufficient distributable reserves be available, and limit the percentage of shares to be redeemed in line with the ordinary shares to which the bid is addressed.
- In the event the Company were to be wound up and liquidated, each Class B share entitles the holder to receive, before any amounts are paid to holders of ordinary shares, an amount equal to the sum of (i) the par value of the Class B share, and (ii) the share premium paid for the Class B share when it was subscribed. In addition to the Class B liquidation preference amount, each holder is entitled to receive the same liquidation amount that is paid for each ordinary share.

These shares are freely transferable.

Since 23 July 2012 the ADSs (American Depositary Shares) representing Grifols' Class B shares (non-voting shares) have had an exchange ratio of 1:1 in relation to Class B shares, ie.1 ADS represents 1 Class B share. The previous rate was 2 ADS per 1 Class B share.

(15) Equity (Continued)

The Company's knowledge of its shareholders is based on information provided voluntarily or in compliance with applicable legislation. According to the information available to the Company, there are no interests representing more than 10% of the Company's total capital at 31 December 2017 and 2016.

At 31 December 2017 and 2016, the number of outstanding shares is equal to the total number of Company shares, less treasury stock.

Movement in outstanding shares during 2016 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2016	426,129,798	257,386,540
(Acquisition) / disposal of treasury stock (note 15 (d))	—	(692,165)
Balance at 31 December 2016	426,129,798	256,694,375

Movement in outstanding shares during 2017 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2017	426,129,798	256,694,375
(Acquisition) / disposal of treasury stock (note 15 (d))	—	432,929
Balance at 31 December 2017	426,129,798	257,127,304

(b) Share premium

Movement in the share premium is described in the consolidated statement of changes in equity, which forms an integral part of this note to the consolidated annual accounts.

(c) Reserves

The drawdown of accumulated gains is subject to legislation applicable to each of the Group companies. At 31 December 2017, Euros 40,061 thousand equivalent to the carrying amount of development costs pending amortization of certain Spanish companies (Euros 50,680 thousand at 31 December 2016) (see note 8) are, in accordance with applicable legislation, restricted reserves which cannot be distributed until these development costs have been amortized.

In May 2015 the company sold 1,967,265 treasury stocks (Class A Shares), generating a profit of Euros 2 million, recognized in reserves.

In June 2015 Araclon Biotech, S.L. increased capital by an amount of Euros 6 million. As a result, the Group has increased its investment from 66.15% to 70.83%. The difference between the share capital increase carried out by the Group and the non-controlling interest had been recognized as a Euros 1.77 million decrease in reserves.

In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After these capital increases, Grifols' interest rose to 100% in 2016. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 0.6 million decrease in reserves.

In August 2016 Araclon Biotech, S.L. increased capital by an amount of Euros 6.7 million. As a result, the Group increased its investment from 70.83% to 73.22%. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 1.7 million decrease in reserves.

On 12 December 2016, the Group subscribed a share capital increase in the capital of VCN Biosciences, S.L. of Euros 5 million. After this capital increase, Grifols interest rose to 81.34% in 2016. The difference

(15) Equity (Continued)

between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 1 million decrease in reserves.

In October 2017, the Group acquired 12,020 Progenika Biopharma, S.A. shares As a result, the Group has increased its investment from 89.25% to 90.23%. The difference between the share capital increase carried out by the Group and the non-controlling interest has been recognized as a Euros 374 thousand decrease in reserves.

At 31 December 2017 and 2016 reserves include the IFRS-EU first-time adoption revaluation reserves and legal reserve of certain Group companies.

Legal reserve

Companies in Spain are obliged to transfer 10% of each year's profits to a legal reserve until this reserve reaches an amount equal to 20% of share capital. This reserve is not distributable to shareholders and may only be used to offset losses if no other reserves are available. Under certain conditions it may be used to increase share capital provided that the balance left on the reserve is at least equal to 10% of the nominal value of the total share capital after the increase.

At 31 December 2017 and 2016 the legal reserve of the Company amounts to Euros 23,921 thousand.

Distribution of the legal reserves of Spanish companies is subject to the same restrictions as those of the Company and at 31 December 2017 the balance of the legal reserve of other Spanish companies amounts to Euros 2,416 thousand (Euros 1,485 thousand at 31 December 2016).

Other foreign Group companies have a legal reserve amounting to Euros 731 thousand at 31 December 2017 (Euros 650 thousand at 31 December 2016).

(d) Treasury stock

At 31 December 2017 and December 2016 the Company does not have any Class A treasury stock.

Movement in Class B treasury stock during 2016 is as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2016	4,038,570	58,575
Acquisition of Class B shares	1,628,893	23,720
Non Cash Disposal Class B shares	(936,728)	(13,585)
Balance at 31 December 2016	4,730,735	68,710

In July 2016 the Company delivered 59,951 treasury stocks (Class B Shares) to Medion's non-controlling interests in exchange for the 20% acquired from them.

In March 2016 the Company delivered 876,777 treasury stocks (Class B Shares) to Progenika's non-controlling interests in exchange for the 16.46% acquired from them (see note 2(b)).

Class B share acquisitions included the purchase of the Class B shares from the vendor shareholders of Progenika for which Grifols exercised the cash option for an amount of Euros 11,035 thousand. This amount had been considered as cash used in investing activities in the statement of cash flow.

(15) Equity (Continued)

Movement in Class B treasury stock during 2017 is as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2017	4,730,735	68,710
Disposal Class B shares	(432,929)	(6,288)
Balance at 31 December 2017	4,297,806	62,422

In March 2017 the company delivered 432,929 treasury stocks (Class B shares) to eligible employees as a compensation of the Restricted Share Unit Retention Plan (see note 29).

The Parent held Class B treasury stock equivalent to 0.6% of its capital at 31 December 2017 (0.7% at 31 December 2016).

(e) Distribution of profit

The profits of Grifols, S.A. and subsidiaries will be distributed as agreed by respective shareholders at their general meetings.

The proposed distribution of profit of the Parent Grifols, S.A. for the years ended 31 December 2017, and the distribution approved for 2016, presented at the general meeting held on 26 May 2017, is as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Legal Reserve	—	—
Voluntary reserve	76,247	103,611
Dividends	265,080	218,182
Profit of the Parent	341,327	321,793

The following dividends were paid in 2016:

	31/12/2016		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	53%	0.13	56,493
Non-voting shares	265%	0.13	34,136
Non-voting shares (preferred dividend)	20%	0.01	2,614
Total dividends paid			93,243

	31/12/2016		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	72%	0.18	76,703
Non-voting shares (interim dividend)	360%	0.18	46,205
Total interim dividends paid			122,908

The following dividends were paid in 2017:

	31/12/2017		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	54%	0.14	57,790
Non-voting shares	271%	0.14	34,870
Non-voting shares (preferred dividend)	20%	0.01	2,614
Total dividends paid			95,274

(15) Equity (Continued)

	31/12/2017		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	72%	0.18	76,703
Non-voting shares (interim dividend)	360%	0.18	46,283
Total interim dividends paid			122,986

At the meeting held on 27 October 2017, the Board of Directors of Grifols approved the distribution of interim dividend for 2017 of Euros 0.18 for each Class A and B share, recognizing a total of Euros 122,986 thousand as interim dividend.

At the meeting held on 28 October 2016, the Board of Directors of Grifols approved the distribution of interim dividend for 2016 of Euros 0.18 for each Class A and B share, recognizing a total of Euros 122,908 thousand as interim dividend.

These amounts to be distributed did not exceed the profits generated by the Company since the end of the last reporting period, less the estimated income tax payable on these profits, in accordance with article 277 of the Revised Spanish Companies Act.

The Statement of Liquidity for Distribution of Interim Dividend of Grifols, S.A. prepared in accordance with legal requirements and which shows the existence of sufficient liquidity to be able to distribute the aforementioned interim dividend is provided in Appendix V.

At a general meeting held on 26 May 2017 the shareholders approved the distribution of a preferred dividend of Euros 0.01 for every Class B non-voting share.

The distribution of the profit for the years ended 31 December 2016 and 2017 is presented in the consolidated statement of changes in equity.

(f) Restricted Share Unit Compensation

The Group has set up a Restricted Share Unit Retention Plan (hereinafter RSU Plan) for certain employees (see note 29). This commitment will be settled using equity instruments and the cumulative accrual amounts to Euros 13,871 thousand (Euros 7,946 thousand in 2016).

(16) Earnings Per Share

The calculation of basic earnings per share is based on the profit for the year attributable to the shareholders of the Parent divided by the weighted average number of ordinary shares in circulation throughout the year, excluding treasury stock.

Details of the calculation of basic earnings per share are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	662,700	545,456	532,145
Weighted average number of ordinary shares outstanding	684,197,276	683,225,815	683,549,316
Basic earnings per share (Euros per share)	0.97	0.80	0.78

(16) Earnings Per Share (Continued)

The weighted average of the ordinary shares outstanding (basic) has been calculated taking into consideration the share split carried out on 4 January 2016 as follows:

	Number of shares		
	31/12/2017	31/12/2016	31/12/2015
Issued shares outstanding at 1 January	683,854,491	683,516,338	683,610,378
Effect of shares issued	—	—	—
Effect of treasury stock	342,785	(290,523)	(61,062)
Average weighted number of ordinary shares outstanding (basic) at 31 December	684,197,276	683,225,815	683,549,316

Diluted earnings per share are calculated by dividing profit for the year attributable to shareholders of the Parent by the weighted average number of ordinary shares in circulation considering the diluting effects of potential ordinary shares.

The RSU Plan granted by the Group and payable in shares, assumes the existence of dilutive potential shares. Diluted earnings per share have been calculated as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	662,700	545,456	532,145
Weighted average number of ordinary shares outstanding (diluted)	684,243,891	684,170,887	683,924,426
Diluted earnings per share (Euros per share)	0.97	0.80	0.78

The weighted average number of ordinary shares outstanding diluted has been calculated as follows:

	Number of shares		
	31/12/2017	31/12/2016	31/12/2015
Issued shares outstanding at 1 January	683,854,491	683,988,460	683,610,378
Effect of RSU shares	46,615	472,950	375,110
Effect of shares issued	—	—	—
Effect of treasury stock	342,785	(290,523)	(61,062)
Average weighted number of ordinary shares outstanding (diluted) at 31 December	684,243,891	684,170,887	683,924,426

(17) Non-Controlling Interests

Details of non-controlling interests and movement at 31 December 2016 are as follows:

	Thousands of Euros					
	Balance at 31/12/2015	Additions	Disposals	Capital increases	Translation differences	Balance at 31/12/2016
Grifols (Thailand) Pte Ltd	2,664	778	(215)	—	127	3,354
Grifols Malaysia Sdn Bhd	1,040	144	—	—	(12)	1,172
Araclon Biotech, S.A.	183	(1,819)	—	1,776	—	140
Medion Grifols Diagnostic AG	(406)	—	406	—	—	—
GRI-CEI S/A Productos para transfusao	1,146	—	(1,146)	—	—	—
Progenika Biopharma, S.A.	1,093	165	—	—	(47)	1,211
Brainco Biopharma, S.L.	(373)	—	373	—	—	—
Abyntek Biopharma, S.L.	(93)	20	—	—	—	(73)
VCN Bioscience, S.L	(67)	(201)	—	961	—	693
	5,187	(913)	(582)	2,737	68	6,497

(see note 2(b))

Details of non-controlling interests and movement at 31 December 2017 are as follows:

	Thousands of Euros					
	Balance at 31/12/2016	Additions	Disposals	Business Combination / Additions to Consolidated Group	Translation differences	Balance at 31/12/2017
Grifols (Thailand) Pte Ltd	3,354	433	(77)	—	(131)	3,579
Grifols Malaysia Sdn Bhd	1,172	229	—	—	(29)	1,372
Araclon Biotech, S.A.	140	(1,617)	—	—	—	(1,477)
Progenika Biopharma, S.A.	1,211	(60)	(298)	—	27	880
Abyntek Biopharma, S.L.	(73)	45	28	—	—	—
VCN Bioscience, S.L	693	(272)	—	—	—	421
Kiro Grifols , S.L.	—	(144)	—	255	—	111
	6,497	(1,386)	(347)	255	(133)	4,886

(see note 2(b))

(18) Grants

Details are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Capital grants	11,010	11,311
Interest rate grants (preference loans) (See note 20 (e))	812	885
	11,822	12,196

Interest-rate grants (preference loans) reflect the implicit interest on loans extended by the Spanish Ministry of Science and Technology as these are interest free.

Grants of Euros 323 thousand have been transferred to the consolidated statement of profit and loss during the year ended 31 December 2017 (Euros 1,154 thousand at 31 December 2016 and Euros 1,227 thousand at 31 December 2015).

(19) Provisions

Details of provisions at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Non-current provisions (a)		
Provisions for pensions and similar obligations	4,742	4,195
Other provisions	1,021	923
Non-current provisions	5,763	5,118

	Thousands of Euros	
	31/12/2017	31/12/2016
Current provisions (b)		
Trade provisions	106,995	89,588
Current provisions	106,995	89,588

(a) Non-current provisions

At 31 December 2017, 2016 and 2015 provisions for pensions and similar obligations mainly comprise a provision made by certain foreign subsidiaries in respect of labor commitments with certain employees.

Movement in provisions during 2015 is as follows:

	Thousand s of Euros					
	Balance at 31/12/2014	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2015
Non-current provisions	6,953	376	(1,598)	(600)	(151)	4,980
	6,953	376	(1,598)	(600)	(151)	4,980

Movement in provisions during 2016 is as follows:

	Thousands of Euros					
	Balance at 31/12/2015	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2016
Non-current provisions	4,980	(399)	(281)	814	4	5,118
	4,980	(399)	(281)	814	4	5,118

Movement in provisions during 2017 is as follows:

	Thousands of Euros						
	Balance at 31/12/2016	Business Combination	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2017
Non-current provisions	5,118	23	422	(23)	290	(67)	5,763
	5,118	23	422	(23)	290	(67)	5,763

(19) Provisions (Continued)

(b) Current provisions

Movement in trade provisions during 2015 is as follows:

	Thousands of Euros					
	Balance at 31/12/2014	Net Charge	Cancellations	Reclasifications	Translation differences	Balance at 31/12/2015
Trade provisions	115,985	(2,562)	(6,123)	492	15,257	123,049
	115,985	(2,562)	(6,123)	492	15,257	123,049

Movement in trade provisions during 2016 is as follows:

	Thousands of Euros				
	Balance at 31/12/2015	Net Charge	Cancellations	Translation differences	Balance at 31/12/2016
Trade provisions	123,049	(28,481)	(6,417)	1,437	89,588
	123,049	(28,481)	(6,417)	1,437	89,588

Movement in trade provisions during 2017 is as follows:

	Thousands of Euros						
	Balance at 31/12/2016	Business combination	Net Charge	Cancellations	Reclasifications	Translation differences	Balance at 31/12/2017
Trade provisions	89,588	41,841	(4,812)	(2,886)	(2,600)	(14,136)	106,995
	89,588	41,841	(4,812)	(2,886)	(2,600)	(14,136)	106,995
		(See note 3(a))					

(20) Financial Liabilities

This note provides information on the contractual conditions of the loans obtained by the Group, which are measured at amortized cost. For further information on exposure to interest rate risk, currency risk and liquidity risk and the fair values of financial liabilities, please refer to note 30.

Details at 31 December 2017 and 2016 are as follows:

	Thousands of Euros	
Financial liabilities	**31/12/2017**	**31/12/2016**
Non-current obligations (a)	853,667	831,417
Senior secured debt (b)	4,849,882	3,728,695
Other loans (b)	169,214	114,898
Finance lease liabilities (c)	5,415	6,086
Other non-current financial liabilities (e)	23,637	30,975
Total non-current financial liabilities	5,901,815	4,712,071
Current obligations (a)	95,538	95,524
Senior secured debt (b)	4,057	81,273
Other loans (b)	29,527	23,288
Finance lease liabilities (c)	3,945	3,859
Other current financial liabilities (e)	22,003	26,121
Total current financial liabilities	155,070	230,065

(20) Financial Liabilities (Continued)

On 06 February 2017 the Group concluded the refinancing process of its senior debt. The total debt refinanced amounts to US Dollars 6,300 million (Euros 5,800 million), including the US Dollars 1,816 million loan obtained for the acquisition of Hologic's transfusional diagnostics unit. Following the refinancing process, Grifols' debt structure consists in a US Dollars 6,000 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 300 million undrawn revolving credit facility.

On 18 April 2017 the Group concluded the refinancing process of the Senior Unsecured Notes. The total bond issuance amounted to Euros 1,000 million.

On 5 December 2017 the Group has received an additional loan from the European Investment Bank of up to Euros 85 million at a fixed interest rate for a period of ten years with a grace period of two years. The loan will be used to support certain investments in R&D which are mainly focused on searching for new applications for plasmatic proteins. On 28 October 2015, the Group received its first loan with the same entity and conditions for a total amount of Euros 100 million.

(a) Senior Unsecured Notes

On 18 April 2017, Grifols, S.A., issued Euros 1,000 million Senior Unsecured Notes (the "Notes") that will mature in 2025 and will bear annual interest at a rate of 3.20%. These notes replaced the 97.1% of the Senior Unsecured Notes issued in 2014 by Grifols Worldwide Operations Limited, a 100% subsidiary of Grifols S.A., amounting to US Dollars 1,000 million, with a maturity in 2022 and at interest rate of 5.25% that was owned by a financial institution. The remaining 2.9% of the existing notes was redeemed before the exchange by an amount of Euros 26,618 thousand. The corresponding deferred costs of the notes have been recognized in profit and loss. On 2 May 2017 the Notes have been admitted to listing in the Irish Stock Exchange.

The present value of discounted cash flows of the new Notes under the new agreement, including costs for fees paid and discounted using the original effective interest rate differs by less than 10% of the present value discounted cash flows remaining in the original debt, whereby the new agreement is not substantially different to the original agreement.

The costs of refinancing Senior Unsecured Notes amounted to Euros 57.5 million, including the redemption costs. These costs were included as transaction costs together with other costs deriving from the debt issue and will be taken to profit and loss in accordance with the new effective interest rate. Based on the analysis of the quantitative and qualitative factors, the Group concluded that the renegotiation of conditions of the Senior Unsecured Notes does not trigger a derecognition of the liability. Unamortized financing costs from the Senior Unsecured Notes amount to Euros 146 million at 31 December 2017 (Euros 117 million at 31 December 2016).

Details of movement in the Senior Unsecured Notes at 31 December 2016 are as follows:

	Thousands of Euros		
	Opening outstanding balance 01/01/16	Translation differences	Closing outstanding balance 31/12/16
Senior Unsecured Notes (nominal amount)	918,527	30,150	948,677
Total	918,527	30,150	948,677

(20) Financial Liabilities (Continued)

Details of movement in the Senior Unsecured Notes at 31 December 2017 are as follows:

	Thousands of Euros				
	Opening outstanding balance 01/01/17	Refinancing	Repayments	Translation differences	Closing outstanding balance 31/12/17
Senior Unsecured Notes (nominal amount)	948,677	108,597	(26,618)	(30,656)	1,000,000
Total	948,677	108,597	(26,618)	(30,656)	1,000,000

At 31 December 2017 and 2016 the current obligations caption includes the issue of bearer promissory notes to Group employees, as follows:

	31/12/2016						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/16	04/05/17	3,000	4.00%	84,966	(789)	(1,104)

	31/12/2017						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/17	04/05/18	3,000	3.00%	92,109	(906)	(909)

(20) Financial Liabilities (Continued)

(b) Loans and borrowings

Details of loans and borrowings at 31 December 2017 and 2016 are as follows:

					Thousands of Euros			
					31/12/2017		31/12/2016	
Credit	Currency	Interest rate	Date awarded	Maturity date	Amount extended	Carrying amount	Amount extended	Carrying amount
Senior debt—Tranche A	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	1,959,476	1,959,476	—	—
Senior debt—Tranche A	Euros	Euribor + 1.75%	31/01/2017	31/01/2023	607,000	607,000	—	—
Senior debt—Tranche B	US Dollars	Libor + 2.25%	31/01/2017	31/01/2025	2,501,459	2,457,684	—	—
Senior debt—Tranche B	Euros	Euribor + 3%	27/02/2014	28/02/2021	—	—	400,000	385,000
Senior debt—Tranche A	US Dollars	Libor + 2.5%	27/02/2014	29/02/2020	—	—	664,074	527,108
Senior debt—Tranche B	US Dollars	Libor + 3%	27/02/2014	28/02/2021	—	—	3,055,168	2,967,574
Total senior debt					5,067,935	5,024,160	4,119,242	3,879,682
EIB Loan	Euros	2.70%	20/11/2015	20/11/2025	100,000	74,375	100,000	100,000
EIB Loan	Euros	2.02%	22/12/2017	22/12/2027	85,000	85,000		
Total EIB Loan					185,000	159,375	100,000	100,000
Revolving Credit	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	250,146	—	—	—
Revolving Credit	US Dollars	Libor + 2.5%	27/02/2014	27/02/2019	—	—	284,603	—
Total Revolving Credit					250,146	—	284,603	—
Other non-current loans	Euros	Euribor- Euribor+4%	19/03/2013	30/09/2024	33,180	9,839	33,000	14,898
Loan transaction costs					—	(174,278)	—	(150,987)
Non-current loans and borrowings					**5,536,261**	**5,019,096**	**4,536,845**	**3,843,593**

(20) Financial Liabilities (Continued)

					Thousands of Euros			
					31/12/2017		31/12/2016	
Credit	Currency	Interest rate	Date awarded	Maturity date	Amount extended	Carrying amount	Amount extended	Carrying amount
Senior debt—Tranche A	US Dollars	Libor + 1.75%	31/01/2017	31/01/2023	(*)	—	—	—
Senior debt—Tranche A	Euros	Euribor + 1.75%	31/01/2017	31/01/2023	(*)	—	—	—
Senior debt—Tranche B	US Dollars	Libor + 2.25%	31/01/2017	31/01/2025	(*)	25,015	—	—
Senior debt—Tranche B	Euros	Euribor + 3%	27/02/2014	28/02/2021	—	—	(*)	4,000
Senior debt—Tranche A	US Dollars	Libor + 2.5%	27/02/2014	29/02/2020	—	—	(*)	49,806
Senior debt—Tranche B	US Dollars	Libor + 3%	27/02/2014	28/02/2021	—	—	(*)	30,832
Total senior debt					—	25,015	—	84,638
BEI Loan	Euros	2.70%	20/11/2015	20/11/2025	(*)	10,625	—	—
Total BEI Loan					—	10,625	—	—
Other current loans		0.1%-3.74%			131,700	18,902	208,105	23,288
Loan transaction costs					—	(20,958)	—	(3,365)
Current loans and borrowings					**131,700**	**33,584**	**208,105**	**104,561**

(*) See amount granted under non-current debt

(20) Financial Liabilities (Continued)

Current loans and borrowings include accrued interest amounting to Euros 1,713 thousand as at 31 December 2017 (Euros 596 thousand at 31 December 2016).

On 06 February 2017 the Group refinanced its Senior Secured Debt with the existing lenders and obtained the additional debt for the acquisition of Hologic by an amount of US Dollars 1,816 million The new senior debt consists of a Term Loan A ("TLA"), which amounts to US Dollars 2,350 million and Euros 607 million with a 1.75% margin overLibor and Euribor respectively and maturity in 2023 and quasi-bullet amortization structure, and a Term Loan B ("TLB") that amounts to US Dollars 3,000 million with a 2.25% margin over Libor and maturity in 2025. The borrowers of the total debt are Grifols Worldwide Operations Limited and Grifols, S.A. for the Term Loan A and Grifols Worldwide Operations USA, Inc. for the Term Loan B.

The present value discounted from cash flows under the new agreement, including any fees paid and discounted using the original effective interest rate differs by less than 10% of the present value discounted from cash flows remaining in the original debt, whereby it is considered that the debt instrument has not been substantially modified.

The costs of refinancing the senior debt have amounted to Euros 84.8 million. Based on the analysis of the quantitative and qualitative factors, the Group has concluded that the renegotiation of conditions of the senior debt does not trigger a derecognition of the liability. Unamortized financing costs from the senior secured debt amount to Euros 195 million at 31 December 2017 (Euros 154 million at 31 December 2016).

The terms and conditions of the senior secured debt are as follows:

- **Tranche A:** six year loan divided into two tranches: US Tranche A and Tranche A in Euros.
    - **US Tranche A :**
        - Original Principal Amount of US Dollars 2,350 million.
        - Applicable margin of 175 basis points (bp) linked to US Libor.
        - Quasi-bullet amortization structure.
        - Maturity in 2023.
    - **Tranche A in Euros :**
        - Original Principal Amount of Euros 607 million.
        - Applicable margin of 175 basis ponts (bp) linked to Euribor.
        - Quasi-bullet amortization structure.
        - Maturity in 2023.

Details of Tranche A by maturity at 31 December 2017 are as follows:

	US Tranche A			Tranche A in Euros	
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros	Currency	Principal in thousands of Euros
2019	US Dollars	117,500	97,974	Euros	30,350
2020	US Dollars	235,000	195,948	Euros	60,700
2021	US Dollars	235,000	195,948	Euros	60,700
2022	US Dollars	1,321,875	1,102,204	Euros	341,437
2023	US Dollars	440,625	367,402	Euros	113,813
Total	**US Dollars**	2,350,000	1,959,476	Euros	607,000

(20) Financial Liabilities (Continued)

- **Tranche B:** Senior Debt Loan repayable in eight years.
  - **US Tranche B :**
    - Original Principal Amount of US Dollars 3,000 million.
    - Applicable margin of 225 basis points (bp) linked to US Libor.
    - Quasi-bullet amortization structure.
    - Maturity in 2025.

Details of Tranche B by maturity at 31 December 2017 are as follows:

		US Tranche B	
Maturity	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros
2018	US Dollars	30,000	25,015
2019	US Dollars	30,000	25,015
2020	US Dollars	30,000	25,015
2021	US Dollars	30,000	25,015
2022	US Dollars	30,000	25,015
2023	US Dollars	30,000	25,015
2024	US Dollars	30,000	25,015
2025	US Dollars	2,767,500	2,307,594
Total	US Dollars	2,977,500	2,482,699

- **US Dollar 300 million committed credit revolving facility:** Amount maturing on 2023 and applicable margin of 175 basis points (bp) linked to US Libor. At 31 December 2017 no amount has been drawn down on this facility.

The issue of senior unsecured notes and senior secured debt is subject to compliance with a leverage ratio covenant. At 31 December 2017 the Group complies with this covenant.

Both the Senior Term Loans and the Revolving Loans are guaranteed by Grifols, S.A. and certain significant subsidiaries of Grifols, S.A. that together with Grifols, S.A. represent, in the aggregate, at least 80% of the consolidated assets and consolidated EBITDA of Grifols, S.A. and its subsidiaries.

The Notes have been issued by Grifols S.A. and are guaranteed on a senior unsecured basis by subsidiaries of Grifols, S.A. that are guarantors and co-borrower under the New Credit Facilities. The guarantors are Grifols Worldwide Operations Limited, Biomat USA, Inc., Grifols Biologicals Inc., Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics, Inc., Instituto Grifols, S.A., Grifols Worldwide Operations USA, Inc and Grifols USA, Llc.

(20) Financial Liabilities (Continued)

(c) Finance lease liabilities

Details of minimum payments and the present value of finance lease liabilities, by maturity date, are as follows:

	Thousands of Euros					
	31/12/2017			31/12/2016		
	Minimum payments	Interest	Present Value	Minimum payments	Interest	Present Value
Maturity at:						
Less than one year	4,305	360	3,945	4,267	408	3,859
Two years	2,636	179	2,457	3,636	263	3,373
Three years	1,461	88	1,373	1,792	88	1,704
Four years	814	60	754	672	16	656
Five years	369	42	327	306	5	301
More than five years	550	46	504	53	1	52
Total	10,135	775	9,360	10,726	781	9,945

(d) Credit rating

In December 2017 and December 2016 Moody's Investors Service has confirmed the 'Ba3' corporate family rating, 'Ba2' rating to the senior secured bank debt and 'B2' rating to the unsecured notes that were used to refinance the existing debt structure. The outlook is confirmed as stable.

In December 2017 and December 2016 Standard & Poor's has confirmed its 'BB' rating on Grifols and has assigned 'BB' and 'B+' issue ratings to Grifols' senior secured debt and senior unsecured notes that were used to refinance the existing debt structure. The outlook for the rating is stable.

(e) Other financial liabilities

At 31 December 2017 "other financial liabilities" include interest-free loans extended by governmental institutions amounting to Euros 20,306 thousand (Euros 20,543 thousand at 31 December 2016). The portion of the loans considered a grant and still to be taken to profit and loss amounts to Euros 812 thousand (Euros 885 thousand at 31 December 2016) (see note 18).

At 31 December 2017, "other current financial liabilities" include an amount of Euros 5 million related to the remaining call option extended by the Group and the shareholders of Progenika with maturity on 2018.

At 31 December 2017 and 2016 "other current financial liabilities" also include approximately Euros 3,056 thousand and Euros 17,578 thousand, respectively, which have been collected directly from Spanish Social Security affiliated bodies and transferred to financial institutions (see note 13).

(20) Financial Liabilities (Continued)

Details of the maturity of other financial liabilities are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Maturity at:		
Up to one year	22,003	26,121
Two years	10,818	11,468
Three years	3,787	6,203
Four years	2,794	5,802
Five years	2,247	2,490
Over five years	3,991	5,012
	45,640	57,096

(21) Trade and Other Payables

Details are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Suppliers	**423,096**	**461,073**
VAT payable	8,827	10,048
Taxation authorities, withholdings payable	24,084	23,700
Social security payable	11,741	11,422
Other public entities	97,068	97,724
Other payables	**141,720**	**142,894**
Current income tax liabilities	**6,709**	**7,957**
	571,525	**611,924**

Suppliers

Details of balances with related parties are shown in note 31.

The Group's exposure to currency risk and liquidity risk associated with trade and other payables is described in note 30.

In accordance with the second final provision of Law 31/2014 that amends Law 15/2010 of 5 July 2010, for fiscal years 2017 and 2016 information concerning the average payment period to suppliers is included.

	Days	
	31/12/2017	31/12/2016
Average payment period to suppliers	72.9	72.0
Paid invoices ratio	74.0	71.5
Outstanding invoices ratio	62.2	76.6

	Thousands of Euros	
	31/12/2017	31/12/2016
Total invoices paid	460,699	460,054
Total outstanding invoices	49,339	42,490

(22) Other Current Liabilities

Details at 31 December are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Salaries payable	129,519	132,755
Other payables	649	427
Deferred income	4,284	441
Advances received	9,945	6,563
Other current liabilities	144,397	140,186

(23) Net Revenues

Net revenues are mainly generated from the sale of goods.

The distribution of net consolidated revenues for 2017, 2016 and 2015 by segment is as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Bioscience	3,429,785	3,195,424	3,032,111
Diagnostic	732,369	691,701	716,838
Hospital	105,649	102,251	96,245
Bio supplies	66,791	57,239	24,466
Others	18,263	34,601	90,289
Intersegments	(34,784)	(31,386)	(25,386)
	4,318,073	4,049,830	3,934,563

As a result of the creation of Bio Supplies segment and Intersegment, the Group has reviewed the allocation of balances and transactions by segments. The comparative figures for years 2016 and 2015 have been restated accordingly.

The geographical distribution of net consolidated revenues is as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
USA and Canada	2,896,505	2,707,579	2,604,315
Spain	242,894	225,273	216,548
European Union	444,089	426,223	456,919
Rest of the world	734,585	690,755	656,781
Consolidated	4,318,073	4,049,830	3,934,563

(23) Net Revenues (Continued)

Details of discounts and other reductions in gross income are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Gross sales	5,322,618	4,882,615	4,579,759
Chargebacks	(826,775)	(652,564)	(488,072)
Cash discounts	(57,512)	(51,953)	(46,150)
Volume rebates	(43,274)	(51,242)	(49,458)
Medicare and Medicaid	(41,722)	(47,820)	(25,710)
Other discounts	(35,262)	(29,206)	(35,806)
Net sales	4,318,073	4,049,830	3,934,563

Movement in discounts and other reductions in gross income during 2015 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2014	58,431	4,738	21,030	14,823	3,174	102,196
Current estimate related to sales made in current and prior year	488,072	46,150	49,458	25,710	35,806	645,196[1]
(Actual returns or credits in current period related to sales made in current period)	(428,041)	(44,867)	(18,211)	(18,402)	(34,059)	(543,580)[2]
(Actual returns or credits in current period related to sales made in prior periods)	—	(246)	(25,051)	(11,257)	(1,791)	(38,345)[3]
Translation differences	7,716	127	2,454	1,594	2,237	14,128
Balance at 31 December 2015	**126,178**	**5,902**	**29,680**	**12,468**	**5,367**	**179,595**

Movement in discounts and other reductions to gross income during 2016 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2015	126,178	5,902	29,680	12,468	5,367	179,595
Current estimate related to sales made in current and prior year	652,564	51,953	51,242	47,820	29,206	832,785[1]
(Actual returns or credits in current period related to sales made in current period)	(693,458)	(51,733)	(27,409)	(24,988)	(27,243)	(824,831)[2]
(Actual returns or credits in current period related to sales made in prior periods)	—	(248)	(27,732)	(14,401)	(2,986)	(45,367)[3]
Translation differences	1,965	758	726	858	98	4,405
Balance at 31 December 2016	**87,249**	**6,632**	**26,507**	**21,757**	**4,442**	**146,587**

(23) Net Revenues (Continued)

Movement in discounts and other reductions to gross income during 2017 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2016	87,249	6,632	26,507	21,757	4,442	146,587
Current estimate related to sales made in current and prior year	826,775	57,512	43,274	41,722	35,262	1,004,545
(Actual returns or credits in current period related to sales made in current period)	(795,449)	(52,270)	(28,976)	(28,198)	(26,072)	(930,965)[2]
(Actual returns or credits in current period related to sales made in prior periods)	31	(6,024)	(20,210)	(16,659)	(2,864)	(45,726)[3]
Translation differences	(12,716)	(736)	(2,604)	(2,418)	(625)	(19,099)
Balance at 31 December 2017	**105,890**	**5,114**	**17,991**	**16,204**	**10,143**	**155,342**

(1) Net impact in income statement: estimate for the current year plus prior years' adjustments. Adjustments made during the year corresponding to prior years' estimates have not been significant.

(2) Amounts credited and posted against provisions for current period

(3) Amounts credited and posted against provisions for prior period

(24) Personnel Expenses

Details of personnel expenses by function are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Cost of sales	731,192	635,577	592,037
Research and development	90,495	77,988	76,780
Selling general & administration expenses	323,880	314,348	269,718
	1,145,567	1,027,913	938,535

Details by nature are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Wages and salaries	917,810	822,384	756,570
Contributions to pension plans (see note 29)	20,347	18,486	14,587
Other social charges	27,679	25,074	22,071
Social Security	179,731	161,969	145,307
	1,145,567	1,027,913	938,535

(24) Personnel Expenses (Continued)

The average headcount during 2017 and 2016, by department, was approximately as follows:

	Average headcount	
	31/12/2017	31/12/2016
Manufacturing	12,194	10,718
R&D—technical area	905	790
Administration and others	1,070	1,053
General management	201	206
Marketing	180	161
Sales and Distribution	1,211	1,123
	15,761	14,051

The headcount of the Group and the Company's board of directors at 31 December 2016, by gender, is as follows:

	31/12/2016		
	Male	Female	Total number of employees
Directors	9	4	13
Manufacturing	5,085	6,315	11,400
Research&development—technical area	304	508	812
Administration and others	607	488	1,095
General management	117	121	238
Marketing	67	101	168
Sales and Distribution	632	532	1,164
	6,821	8,069	14,890

The headcount of the Group and the Company's board of directors at 31 December 2017, by gender, is as follows:

	31/12/2017		
	Male	Female	Total number of employees
Directors	9	4	13
Manufacturing	5,933	8,644	14,577
Research&development—technical area	373	590	963
Administration and others	631	481	1,112
General management	119	111	230
Marketing	78	109	187
Sales and Distribution	647	580	1,227
	7,790	10,519	18,309

(25) Expenses by Nature

(a) Amortization and depreciation

Expenses for the amortization and depreciation of intangible assets and property, plant and equipment, incurred during 2017, 2016 and 2015 classified by functions are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Cost of sales	135,186	126,998	110,898
Research and development	14,721	13,050	13,654
Selling, general & administration expenses	65,583	61,821	65,203
	215,490	201,869	189,755

(b) Other operating income and expenses

Other operating income and expenses incurred during 2017, 2016 and 2015 by function are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Cost of sales	416,020	454,097	426,531
Research and development	129,579	113,078	118,667
Selling, general & administration expenses	460,959	393,523	403,944
	1,006,558	960,698	949,142

Details by nature are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Changes in trade provisions	3,648	(22,069)	(763)
Professional services	211,579	190,003	173,990
Commissions	18,473	20,147	20,474
Supplies and auxiliary materials	131,932	119,014	115,471
Operating leases (note 28)	80,136	74,945	70,496
Freight	105,292	96,680	83,352
Repair and maintenance expenses	103,518	89,797	81,087
Advertising	49,893	51,233	47,860
Insurance	21,529	20,008	19,501
Royalties	11,241	9,217	9,386
Travel expenses	58,171	53,239	52,606
External services	82,699	43,231	56,743
R&D Expenses	89,977	78,379	81,319
Other	38,470	136,874	137,620
Other operating income&expenses	1,006,558	960,698	949,142

(26) Finance Result

Details are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Finance income	9,678	9,934	5,841
Finance cost from Senior Unsecured Notes	(65,189)	(73,491)	(72,783)
Finance cost from senior debt	(193,183)	(168,332)	(161,624)
Finance cost from sale of receivables (note 13)	(3,973)	(4,885)	(6,512)
Capitalized interest	8,839	13,019	9,795
Other finance costs	(9,838)	(11,140)	(9,211)
Finance costs	(263,344)	(244,829)	(240,335)
Change in fair value of financial derivatives (note 30)	(3,752)	(7,610)	(25,206)
Impairment and gains / (losses) on disposal of financial instruments (note 11)	(18,844)	—	—
Exchange differences	(11,472)	8,916	(12,140)
Finance result	(287,734)	(233,589)	(271,840)

During 2017 the Group has capitalized interest at a rate of between 4.26% and 4.87% based on the financing received (between 4.8% and 5.2% during 2016) (see note 4 (f)).

(27) Taxation

Grifols, S.A. is authorized to file consolidated tax returns in Spain with Diagnostic Grifols, S.A., Grifols Movaco, S.A., Laboratorios Grifols, S.A., Instituto Grifols, S.A., Grifols Worldwide Operations Spain, S.A. (formerly Logister, S.A), Biomat, S.A., Grifols Viajes, S.A., Grifols International, S.A., Grifols Engineering, S.A., Gri-Cel, S.A., Gripdan Invest, S.L. and VCN Biosciences, S.L. Grifols, S.A., in its capacity as Parent, is responsible for the filing and settlement of the consolidated tax return. Under prevailing tax law, Spanish companies pay 25% tax, which may be reduced by certain deductions.

The North American company Grifols Shared Services North America, Inc. is also authorized to file consolidated tax returns in the USA with Grifols Biologicals Inc., Grifols USA, LLC., Biomat USA, Inc., Grifols Therapeutics Inc. and Talecris Plasma Resources, Inc. The profits of the companies domiciled in the USA, determined in accordance with prevailing tax legislation, are subject to tax of approximately 36.5% of taxable income, which may be reduced by certain deductions.

(27) Taxation (Continued)

(a) Reconciliation of accounting and taxable income

Details of the income tax expense and income tax related to profit for the year are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Profit before income tax from continuing operations	695,722	712,752	690,250
Tax at 25% (28% for 2015)	173,931	178,188	193,270
Permanent differences	17,163	8,019	(2,709)
Effect of different tax rates	40,981	14,509	(24,524)
Tax credits (deductions)	(16,092)	(20,163)	(19,487)
Impact related to the US tax legistation modific	(171,169)	—	—
Prior year income tax expense	(8,614)	928	2,723
Other income tax expenses/(income)	(1,792)	(13,272)	9,536
Total income tax expense	34,408	168,209	158,809
Deferred tax	(149,443)	(40,161)	24,357
Current tax	183,851	208,370	134,452
Total income tax expense	34,408	168,209	158,809

The effect of the different tax rates is basically due to a change of country mix in profits

On December 22, 2017, a tax reform has been approved in the United States that will take effect on January 1, 2018.

The Group has carried out an exercise to identify changes in the tax reform affecting its subsidiaries in the USA and an assessment of the impact that these changes will have on the manner in which the deferred taxes will revert as of December 31, 2017. In the analysis performed, the main impact comes from the change in tax rates to be applied to deferred taxes as of December 31, 2017, which have gone from a rate of 35% to 21% for fiscal years beginning on or after January 1. of 2018. The impact registered in the "income tax expense" caption amounts to Euros 171 million in the year 2017. The remaining changes in the tax legislation that affect the subsidiaries in the USA have not had a material impact nor have they required relevant judgments and estimates that could lead to significant variations in the estimate made in the future. As a consequence, we consider the estimates made as definitive.

(27) Taxation (Continued)

(b) Deferred tax assets and liabilities

Details of deferred tax assets and liabilities are as follows:

	Thousands of Euros		
	Tax effect		
	31/12/2017	31/12/2016	31/12/2015
Assets			
Provisions	4,564	3,696	38,004
Inventories	35,619	39,297	37,141
Tax credits (deductions)	49,467	37,685	42,533
Tax loss carry forwards	6,179	10,717	30,668
Other	7,513	3,393	6,961
Subtotal, assets	103,342	94,788	155,307
Goodwill	(22,346)	(19,136)	(77,755)
Fixed assets, amortisation and depreciation	(7,780)	(7,062)	(10,409)
Intangible assets	(7,059)	(1,371)	(349)
Subtotal, net liabilities	(37,185)	(27,569)	(88,513)
Deferred assets, net	66,157	67,219	66,794
Liabilities			
Goodwill	(105,963)	(131,039)	(35,877)
Intangible assets	(201,921)	(392,388)	(404,617)
Fixed assets	(95,029)	(158,060)	(119,858)
Debt cancellation costs	(70,503)	(64,762)	(77,514)
Inventories	5,063	(1,175)	(32,351)
Cash flow hedges	—	—	(982)
Subtotal, liabilities	(468,353)	(747,424)	(671,199)
Tax loss carry forwards	15,384	40,358	7,097
Provisions	47,404	61,252	22,085
Other	16,653	45,168	10,452
Subtotal, net assets	79,441	146,778	39,634
Net deferred Liabilities	(388,912)	(600,646)	(631,565)

Movement in deferred tax assets and liabilities is as follows:

	Thousands of Euros		
Deferred tax assets and liabilities	31/12/2017	31/12/2016	31/12/2015
Balance at 1 January	(533,427)	(564,771)	(456,341)
Movements during the year	149,443	40,161	(24,357)
Movements in equity during the year	—	—	(10,960)
Business combination (note 3)	16,736	—	—
Translation differences	44,493	(8,817)	(73,113)
Balance at 31 December	(322,755)	(533,427)	(564,771)

The Spanish companies have opted to apply accelerated depreciation to certain additions to property, plant and equipment, which has resulted in the corresponding deferred tax liability.

(27) Taxation (Continued)

The remaining assets and liabilities recognized in 2017, 2016 and 2015 were recognized in the statement of profit and loss.

Estimated net deferred tax assets to be reversed in a period of less than 12 months amount to Euros 51,930 thousand at 31 December 2017 (Euros 99,897 thousand at 31 December 2016).

The majority of the tax deductions pending application from Spanish companies related mainly to research and development, mature in 18 years.

Tax credits derived from the US companies are available for 20 years from their date of origin whilst tax credits from Spanish companies registered in the Basque Country are available for 15 and other remaining Spanish companies have no maturity date.

The Group has not recognized as deferred tax assets the tax effect of the tax loss carryforwards of Group companies, which amount to Euros 51,169 thousand (Euros 67,044 thousand at 31 December 2016).

The commitments from Spanish companies from the reversal of deferred tax related to provisions of investments in subsidiaries are not significant.

(c) Years open to inspection

Under prevailing legislation, taxes cannot be considered to be definitively settled until the returns filed have been inspected by the taxation authorities, or the prescription period has elapsed.

The main tax audits currently open in the Group are as follows:

- Grifols Share Services North America, Inc: Income Tax Audit for the tax year ending, 2015 was initiated from July, 2017. During tax year 2017 these inspections had been closed without any significant adjustment.
- Grifols Shared Services North America, Inc. and subsidiaries: notification of an inspection of State Income tax in North Carolina and New York states (tax years 2012 to 2015).
- Grifols Diagnostic Solutions, Corp.: notification of an inspection of the "federal tax return" for the fiscal year 2014. During tax year 2017 these inspections had been closed without any significant adjustment.
- Grifols, S.A., Instituto Grifols, S.A., Grifols Movaco, S.A. and Biomat, S.A.: Income Tax audit, Withholdings and VAT Audit for the tax years ended 2010, 2011 and 2012 that were initiated as of July 2014. During tax year 2016 these inspections had been closed without any significant adjustment.

Group management does not expect any significant liability to derive from these inspections.

(28) Operating Leases

(a) Operating leases (as lessee)

At 31 December 2017, 2016 and 2015 the Group leases buildings and warehouses from third parties under operating leases.

Operating lease instalments of Euros 80,136 thousand have been recognized as an expense for the year ended at 31 December 2017 (Euros 74,945 thousand at 31 December 2016 and Euros 70,496 thousand at 31 December 2015) and comprise minimum lease payments.

(28) Operating Leases (Continued)

Future minimum payments on non-cancellable operating leases at 31 December 2017, 2016 and 2015 are as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Maturity at:			
Up to 1 year	46,541	56,869	77,951
Between 1 and 5 years	156,897	181,076	126,644
More than 5 years	58,905	112,986	101,319
Total future minimum payments	262,343	350,931	305,914

(b) Operating leases (as lessor)

At 31 December 2017, 2016 and 2015 the Group has no lease contracts as lessor.

(29) Other Commitments with Third Parties and Other Contingent Liabilities

(a) Guarantees

The Group has no significant guarantees extended to third parties.

(b) Guarantees committed with third parties

The Group has no significant guarantees extended to third parties, except for the ones included in note 20.

(c) Obligations with personnel

The Group's annual contribution to defined contribution pension plans of Spanish Group companies for 2017 has amounted to Euros 725 thousand (Euros 674 thousand for 2016).

In successive years this contribution will be defined through labor negotiations.

In the event that control is taken of the Company, the Group has agreements with 73 employees/directors whereby they can unilaterally rescind their employment contracts with the Company and are entitled to termination benefits ranging from 2 to 5 years' salary.

The Group has contracts with nine executives entitling them to termination benefits ranging from one to four years of their salary in different circumstances.

Restricted Share Unit Retention Plan

For the annual bonus, the Group established a Restricted Share Unit Retention Plan (RSU Plan), for eligible employees. Under this plan, employees can choose to receive up to 50% of their yearly bonus in non-voting Class B ordinary shares (Grifols Class B Shares) or Grifols American Depositary Shares (Grifols ADS), and the Group will match this with an additional 50% of the employee's choice of RSUs.

Grifols Class B Shares and Grifols ADS are valued at grant date.

These RSUs will have a vesting period of 2 years and 1 day and, subsequently, the RSU's will be exchanged for Grifols Class B Shares or Grifols ADS (American Depositary Share representing 1 Class B Share).

If an eligible employee leaves the Company or is terminated before the vesting period, he will not be entitled to the additional RSUs.

At 31 December 2017, the Group has settled the RSU plan of 2014 for an amount of Euros 7,303 thousand.

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

This commitment is treated as equity-settled and the amount totals Euros 13,871 thousand at 31 December 2017 (Euros 10,594 thousand at 31 December 2016).

Savings plan and profit-sharing plan

The Group has a defined contribution plan (savings plan), which qualifies as a deferred salary arrangement under Section 401 (k) of the Internal Revenue Code (IRC). Once eligible, employees may elect to contribute a portion of their salaries to the savings plan, subject to certain limitations. The Group matches 100% of the first 3% of employee contributions and 50% of the next 2%. Group and employee contributions are fully vested when contributed. The total cost of matching contributions to the savings plan was US Dollars 18.9 million for 2017 (US Dollars 17 million for 2016).

Other plans

The Group has a defined benefit pension plan for certain Talecris Biotherapeutics, GmbH employees in Germany as required by statutory law. The pension cost relating to this plan was not material for the periods presented.

(d) Purchase commitments

Details of the Group's commitments at 31 December 2017 are as follows:

	Thousands of Euros
2018	83,782
2019	62,510
2020	56,183
2021	39,765
2022	9,249
2023	780
2024	780

(e) Judicial procedures and arbitration

Details of legal proceedings in which the Company or Group companies are involved are as follows:

The Group carried out an internal investigation, already started prior to the acquisition of Talecris, in relation to possible breaches of the Foreign Corrupt Practices Act (FCPA) of which Talecris was aware in the context of a review unrelated to this matter. This FCPA investigation was carried out by an external legal advisor. In principle, the investigation was focused on sales to certain Central and Eastern European countries, specifically Belarus and Russia, although trading practices in Brazil, China, Georgia, Iran and Turkey are also being investigated, in addition to other countries considered necessary.

In July 2009, the Talecris Group voluntarily contacted the U.S. Department of Justice (DOJ) to inform them of an internal investigation that the Group was carrying out regarding possible breaches of the FCPA in certain sales to certain central and East European countries and to offer the Group's collaboration in any investigation that the DOJ wanted to carry out. As a result of this investigation the Group suspended shipments to some of these countries. In certain cases, the Group had safeguards in place which led to terminating collaboration with consultants and suspending or terminating relations with distributors in those countries under investigation as circumstances warranted.

As a consequence of the investigation, the agreement with Talecris' Turkish distributor was terminated and a settlement agreement was reached between the parties. In November 2012, the Group was notified by the DOJ that the proceedings would be closed, without prejudice to the fact that they could be re-opened

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

in the future should new information arise. The Group continues with the in-depth review of potential irregular practices.

Furthermore, an investigation was opened in Italy, in relation with the criminal prosecution in Naples against 5 employees of the Company, including the former General Manager.

From these 5 employees of the Company initially charged, the Naples Tribunal resolved discharging 3 of them, continuing the judicial process only against the remaining 2 employees. Additionally, the Company has finalized the internal investigation opened in Italy as a consequence of the indicated judicial proceedings, and in November 2015 a meeting took place with the DOJ to report on the conclusions derived from the investigation.

Additionally to the above and as part of the in-depth review of potential irregular practices that the Group is carrying out in relation to its recent acquisitions, the Company opened internal investigations in Mexico as well as in the Czech Republic to review the commercial practices in such countries. Both investigations have finalized, without having detected any significant practice that could imply a breach of the FCPA.

On September 2016, the United States Department of Justice (the "Department") notified the Group that the Department has closed its inquiry into Grifols, concerning possible violations of the U.S. Foreign Corrupt Practices Act. In its notice of declination to prosecute, the Department acknowledged the full cooperation of Grifols in the investigation.

- As a result of the acquisition of the transfusional Diagnostic unit, the Group considers that there could have existed inadequate commercial and contractual practices which could originate in potential contingencies.
- bioMerieux, S.A., et ano. v. Hologic, Inc. et al., Case No. 1:17-cv-102 (M.D.N.C); Case No. 18-21-LPS-CJB (D. Del.): on February 3, 2017, bioMérieux, S.A and bioMérieux, Inc. filed suit against Hologic, Inc. ("Hologic"), Grifols, S.A. ("GSA"), and Grifols Diagnostic Solutions Inc. ("GDS") in the U.S. District Court for the Middle District of North Carolina, alleging infringement of U.S. Patent Nos. 8,697,352 and 9,074,262 by virtue of defendants' activities with respect to the Procleix HIV-1/HCV Assay®, Procleix Ultrio Assay®, and Procleix Ultrio Plus® products. Hologic and GDS filed a motion to dismiss for failure to state a claim on April 3, 2017. As a result of a claim of improper venue, the case was transferred to the U.S. District Court for the District of Delaware in early 2018. Hologic and GDS are pursuing defenses of failure to state a claim, non-infringement, invalidity, and that the infringement claims are contractually barred. Additionally, GSA intends to pursue dismissal for lack of personal jurisdiction.
- Enzo Life Sciences, Inc. v. Hologic, Inc. et al., Case No. 1:16-cv-00894-LPS (D. Del.): on October 4, 2016, Enzo Life Sciences, Inc. ("Enzo") filed suit against Hologic in the U.S. District Court for the District of Delaware, alleging infringement of U.S. Patent No. 6,221,581 by virtue of Hologic's activities with respect to Progensa®, Procleix®, and Aptima®products. On November 9, 2017, the Court granted Enzo's motion to amend its complaint to add GSA and GDS as defendants with respect to the Procleix® products at issue. Hologic and GDS have answered the complaint, alleging non-infringement and invalidity among their defenses. GSA has moved to dismiss for lack of personal jurisdiction. The case schedule has been extended in light of the addition of Grifols-related entities as co-defendants, with Hologic and GDS currently engaged in fact discovery. Trial is scheduled for September 2019.

(30) Financial Instruments

Classification

Disclosure of financial instruments by nature, category and fair value is as follows:

	Thousand of Euros								
	31/12/2016								
	Carrying amount					Fair Value			
	Loans and receivables	Financial instruments held for trading	Available for sale financial assets	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	15,201	—	29,998	—	45,199	29,998	15,201	—	45,199
Financial derivatives	—	13,665	—	—	13,665	—	—	13,665	13,665
Financial assets measured at fair value	**15,201**	**13,665**	**29,998**	**—**	**58,864**				
Non-current financial assets	30,681	—	—	—	30,681				
Other current financial assets	2,582	—	—	—	2,582				
Trade and other receivables	434,136	—	—	—	434,136				
Cash and cash equivalents	895,009	—	—	—	895,009				
Financial assets not measured at fair value	**1,362,408**	**—**	**—**	**—**	**1,362,408**				
Senior Unsecured Notes	—	—	—	(843,868)	(843,868)	(904,377)	—	—	(904,377)
Promissory Notes	—	—	—	(83,073)	(83,073)				
Senior secured debt	—	—	—	(3,809,968)	(3,809,968)	—	(3,811,970)	—	(3,811,970)
Other bank loans	—	—	—	(138,186)	(138,186)				
Finance lease payables	—	—	—	(9,945)	(9,945)				
Other financial liabilities	—	—	—	(57,096)	(57,096)				
Trade and other payables	—	—	—	(461,073)	(461,073)				
Other current liabilities	—	—	—	(7,431)	(7,431)				
Financial liabilities not measured at fair value	**—**	**—**	**—**	**(5,410,640)**	**(5,410,640)**				
	1,377,609	**13,665**	**29,998**	**(5,410,640)**	**(3,989,368)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

	Thousand of Euros								
	31/12/2017								
	Carrying amount					Fair Value			
	Loans and receivables	Financial instruments held for trading	Available for sale financial assets	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	—	—	38,708	—	38,708	38,708	—	—	38,708
Financial derivatives	—	8,338	—	—	8,338	—	—	8,338	8,338
Financial assets measured at fair value	**—**	**8,338**	**38,708**	**—**	**47,046**				
Non-current financial assets	22,843	—	—	—	22,843				
Other current financial assets	10,738	—	—	—	10,738				
Trade and other receivables	304,864	—	—	—	304,864				
Cash and cash equivalents	886,521	—	—	—	886,521				
Financial assets not measured at fair value	**1,224,966**	**—**	**—**	**—**	**1,224,966**				
Senior Unsecured Notes	—	—	—	(858,911)	(858,911)	(1,018,130)	—	—	(1,018,130)
Promissory Notes	—	—	—	(90,294)	(90,294)				
Senior secured debt	—	—	—	(4,853,939)	(4,853,939)	—	(5,063,769)	—	(5,063,769)
Other bank loans	—	—	—	(198,741)	(198,741)				
Finance lease payables	—	—	—	(9,360)	(9,360)				
Other financial liabilities	—	—	—	(45,640)	(45,640)				
Trade and other payables	—	—	—	(423,096)	(423,096)				
Other current liabilities	—	—	—	(14,879)	(14,879)				
Financial liabilities not measured at fair value	**—**	**—**	**—**	**(6,494,860)**	**(6,494,860)**				
	1,224,966	**8,338**	**38,708**	**(6,494,860)**	**(5,222,848)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

Financial derivatives

At 31 December 2017 and 2016 the Group has recognized the following derivatives:

				Thousands of Euros		
Financial derivatives	Currency	Notional amount at 31/12/2017	Notional amount at 31/12/2016	Value at 31/12/17	Value at 31/12/16	Maturity
Call Option	US Dollar	N/A	N/A	8,338	9,487	30/04/2019
Embedded derivative	US Dollar	N/A	N/A	—	4,178	31/05/2021
Total				8,338	13,665	
Total Assets (notes 10 and 11)				8,338	13,665	

At 31 December 2017, the Group has totally impaired the amount of the embedded derivative related to the convertible bonds issued by Aradigm due to the no recommendation of approval of LinhaliqTM by the Food and Drug Administration (FDA) (see note 11).

On May 11, 2016 the Group has paid an aggregate amount equal to US Dollars 10 million (Euros 8,960 thousand) in respect of the call right for the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. units that are not owned by the Group. The call right can be exercised by the Group by delivering written notice of its intention at any time on or after February 1, 2019 and on or before April 30, 2019 (see note 11).

Financial derivatives are measured based on observable market data (level 2 of fair value hierarchy). Regarding the valuation of derivative instruments, the selection of the appropriate data within the alternatives requires the use of judgement in qualitative factors such as, which methodology and valuation models are used, and in quantitative factors, data required to be included within the chosen models.

Derivative financial instruments that do not meet the hedge accounting requirements are classified and measured as financial assets or financial liabilities at fair value through profit and loss.

Credit risk

(a) Exposure to credit risk

The carrying amount of financial assets represents the maximum exposure to credit risk. At 31 December 2017 and 2016 the maximum level of exposure to credit risk is as follows:

		Thousands of Euros	
Carrying amount	Note	31/12/2017	31/12/2016
Non-current financial assets	11	69,889	89,545
Other current financial assets	11	10,738	2,582
Trade receivables	13	286,198	413,656
Other receivables	13	18,666	20,480
Cash and cash equivalents	14	886,521	895,009
		1,272,012	1,421,272

(30) Financial Instruments (Continued)

The maximum level of exposure to risk associated with receivables at 31 December 2017 and 2016, by geographical area, is as follows.

	Thousands of Euros	
Carrying amount	**31/12/2017**	**31/12/2016**
Spain	63,505	56,104
EU countries	53,403	52,034
United States of America	65,068	196,885
Other European countries	5,761	13,428
Other regions	117,127	115,685
	304,864	434,136

Details of balances receivable by country such as Greece, Italy, Spain and Portugal at 31 December 2016 are as follows:

	Thousands of Euros						
	Balances with public entities			Balance with third parties			
	Balance[(1)]	Balance past due	Provision for doubtful receivables[(2)]	Balance[(3)]	Balance past due	Provision for doubtful receivables[(4)]	Net debt (1)+(2)+(3)+(4)
Greece	—	—	—	425	—	(137)	288
Italy	7,188	2,077	—	12,196	7,375	(3,098)	16,286
Spain	23,281	3,287	—	27,316	9,595	(249)	50,348
Portugal	2,734	1,205	(356)	129	78	(27)	2,480
	33,203	6,569	(356)	40,066	17,048	(3,511)	69,402

Details of balances receivable by country such as Greece, Italy, Spain and Portugal at 31 December 2017 are as follows:

	Thousands of Euros						
	Balances with public entities			Balance with third parties			
	Balance[(1)]	Balance past due	Provision for doubtful receivables[(2)]	Balance[(3)]	Balance past due	Provision for doubtful receivables[(4)]	Net debt (1)+(2)+(3)+(4)
Greece	—	—	—	745	—	—	745
Italy	4,020	2,348	—	10,614	6,342	(4,016)	10,618
Spain	33,702	7,785	—	23,444	8,926	(136)	57,010
Portugal	1,078	490	(296)	1,972	1,085	(126)	2,628
	38,800	10,623	(296)	36,775	16,353	(4,278)	71,001

Provision has been made for balances receivable from Portuguese public entities on the basis of the best estimate of their expected collection in view of the current situation regarding negotiations. The Group does not currently have any reason to consider that the receivables from public entities in Spain will not be recoverable.

(30) Financial Instruments (Continued)

(b) Impairment losses

Details of the maturity of trade receivables, net of impairment provisions are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Not matured	249,652	360,018
Less than 1 month	24,302	24,650
1 to 4 months	18,717	29,318
4 months to 1 year	8,092	10,045
More than one year	4,101	10,105
	304,864	434,136

Unimpaired receivables that are past due mainly relate to public entities.

Movement in the bad debt provision was as follows:

	Thousands of Euros		
	31/12/2017	31/12/2016	31/12/2015
Opening balance	17,987	13,210	14,092
Net charges for the year	8,003	6,411	1,800
Net cancellations for the year	(4,732)	(2,217)	(2,984)
Translation differences	(1,552)	583	302
Closing balance	19,706	17,987	13,210

An analysis of the concentration of credit risk is provided in note 5 (a).

Liquidity risk

The management of the liquidity risk is explained in note 5.

Details of the contractual maturity dates of financial liabilities including committed interest calculated using interest rate forward curves are as follows:

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/16	Contractual flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
Financial liabilities								
Bank loans	20	3,948,154	4,669,325	134,918	119,476	192,059	4,183,259	39,613
Other financial liabilities	20	57,096	57,096	23,082	3,039	11,468	16,686	2,821
Bonds and other marketable securities	20	926,941	1,305,680	107,975	24,903	49,806	1,122,996	—
Finance lease payables	20	9,945	10,725	2,195	2,072	3,630	2,828	—
Payable to suppliers	21	461,073	461,073	461,029	44	—	—	—
Other current liabilities	22	7,431	7,431	7,118	313	—	—	—
Total		5,410,640	6,511,330	736,317	149,847	256,963	5,325,769	42,434

(30) Financial Instruments (Continued)

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/17	Contractual flows	6 months or less	6-12 months	1-2 years	2-5 years	More than 5 years
Financial liabilities								
Bank loans	20	5,052,680	6,138,673	105,584	106,492	322,421	3,115,887	2,488,289
Other financial liabilities	20	45,640	45,642	19,393	2,610	10,758	10,497	2,384
Bonds and other marketable securities	20	949,205	1,331,203	107,203	16,000	32,000	128,000	1,048,000
Finance lease payables	20	9,360	10,136	2,192	2,113	2,602	2,790	439
Payable to suppliers	21	423,096	423,096	423,020	76	—	—	—
Other current liabilities	22	14,878	14,878	14,462	416	—	—	—
Total		6,494,859	7,963,628	671,854	127,707	367,781	3,257,174	3,539,112

Currency risk

The Group's exposure to currency risk is as follows:

	Thousands of Euros	
	31/12/2016	
	Euros(*)	Dollars(**)
Trade receivables	5,576	7,520
Receivables from Group companies	33,792	37,740
Loans to Group companies	597,897	1,854
Cash and cash equivalents	32,255	21,254
Trade payables	(11,188)	(5,062)
Payables to Group companies	(42,395)	(32,159)
Loans from Group companies	(268,040)	(4,295)
Bank loans	(489,000)	—
Balance sheet exposure	(141,103)	26,852

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

	Thousands of Euros	
	31/12/2017	
	Euros(*)	Dollars(**)
Trade receivables	3,596	22,936
Receivables from Group companies	103,338	7,619
Loans to Group companies	34,140	91,566
Cash and cash equivalents	63,981	2,172
Trade payables	(14,213)	(3,582)
Payables to Group companies	(42,296)	(11,241)
Loans from Group companies	(22,913)	(3,953)
Bank loans	(85,000)	—
Balance sheet exposure	40,633	105,517

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

(30) Financial Instruments (Continued)

The most significant exchange rates applied at 2017 and 2016 year ends are as follows:

	Closing exchange rate	
Euros	**31/12/2017**	**31/12/2016**
US Dollars	1.1993	1.0541

A sensitivity analysis for foreign exchange fluctuations is as follows:

Had the US Dollar strengthened by 10% against the Euro at 31 December 2017, equity would have increased by Euros 416,116 thousand (Euros 318,528 thousand at 31 December 2016) and profit due to foreign exchange differences would have increased by Euros 14,615 thousand (would have decreased by Euros 11,425 thousand at 31 December 2016). This analysis assumes that all other variables are held constant, especially that interest rates remain constant.

A 10% weakening of the US Dollar against the Euro at 31 December 2017 and 2016 would have had the opposite effect for the amounts shown above, all other variables being held constant.

Interest rate risk

(a) Interest-rate profile

To date, the profile of interest on interest-bearing financial instruments is as follows:

	Thousands of Euros	
	31/12/2017	**31/12/2016**
Fixed-interest financial instruments		
Financial liabilities	(1,170,000)	(1,048,676)
	(1,170,000)	(1,048,676)
Variable-interest financial instruments	(5,049,382)	(3,964,320)
Financial liabilities	(5,049,382)	(3,964,320)
	(6,219,382)	(5,012,996)

(b) Sensitivity analysis

If the interest rate had been 100 basis points higher during 2017, the interest expense would have increased by Euros 53 million. As the Group does not have any derivatives in place, the net effect on cash interest payments would have increased by the same amount.

If the interest rate had been 100 basis points higher during 2016, the interest expense would have increased by Euros 40.7 million, the finance cost due to changes in the value of derivatives would have been Euros 2.6 million lower. The impact on equity is not significant because of derivatives close to maturity on 31 March 2016 for Euro swaps and 30 June 2016 for US dollar swaps. Therefore, the net effect on cash interest payments should have been Euros 38.1 million.

(31) Balances and Transactions with Related Parties

Details of balances with related parties are as follows:

	Thousands of Euros	
	31/12/2017	31/12/2016
Receivables from associates (note 13)	3,219	133
Trade payables associates	(4,583)	(4,221)
Loans to associates (note 11)	26,654	15,994
Debts with associates	—	—
Debts with key management personnel	(6,164)	(6,662)
Payables to members of the board of directors	(463)	—
Payables to other related parties	(9,187)	(8,473)
	9,476	(3,229)

Payables are included in suppliers and trade payables (see note 21).

(a) Group transactions with related parties

Group transactions with related parties during 2015 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	317	—	—	—
Other service expenses	(361)	—	(6,938)	(845)
Operating lease expense	—	—	(4,900)	—
Remuneration	—	(9,447)	—	(3,443)
R&D agreements	(18,400)	—	—	—
Purchase of Fixed Assets	—	—	(276,457)	—
Sale of Fixed Assets	—	—	12,000	—
Finance Income	1,916	—	—	—
	(16,528)	(9,447)	(276,295)	(4,288)

Group transactions with related parties during 2016 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	193	—	—	—
Purchases	(35,569)	—	—	—
Other service expenses	(7,591)	—	(5,325)	(905)
Operating lease expense	—	—	(5,281)	—
Remuneration	—	(10,287)	—	(3,668)
R&D agreements	(10,188)	—	—	—
Finance Income	1,946	—	—	—
	(51,209)	(10,287)	(10,606)	(4,573)

(31) Balances and Transactions with Related Parties (Continued)

Group transactions with related parties during 2017 are as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	3,009	—	—	—
Purchases	(68,335)	—	—	—
Other service expenses	(11,798)	—	(7,100)	(939)
Operating lease expense	—	—	(5,426)	—
Remuneration	—	(13,672)	—	(5,755)
R&D agreements	(164)	—	—	—
Finance Income	152	—	—	—
	(77,136)	(13,672)	(12,526)	(6,694)

Every year the Group contributes 0.7% of its profits before tax to a non-profit organization.

"Other service expenses" include contributions to non-profit organizations totaling Euros 7,100 thousand in 2017 (Euros 5,325 thousand in 2016 and Euros 5,224 thousand in 2015).

During 2011 one of the Company's directors signed a three-year consulting services contract. The director will receive annual fees of US Dollars 1 million for these services and an additional bonus of US Dollars 2 million for complying with certain conditions. During 2014, this contract was renewed for an additional year for an amount of US Dollars 1 million. In 2015, this contract was extended for two years for an amount of US Dollars 1 million for each year.

Directors representing shareholders' interests have received remuneration of Euros 1,881 thousand in 2017 (During 2016 the Group did not name any director representing shareholders' interests and during 2015 the named directors representing shareholders' interests received Euros 50 thousand).

The Group has not extended any advances or loans to the members of the board of directors or key management personnel nor has it assumed any guarantee commitments on their behalf. It has also not assumed any pension or life insurance obligations on behalf of former or current members of the board of directors or key management personnel. In addition, certain Company directors and key management personnel have termination benefit commitments (see note 29 (c)).

(b) Conflicts of interest concerning the directors

The Company's directors and their related parties have not entered into any conflict of interest that should have been reported in accordance with article 229 of the revised Spanish Companies Act.

(32) Environmental Issues

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2016 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	1,472	(1,072)	400
Waste management	3,492	(1,208)	2,284
Reduction of electricity consumption	10,195	(2,380)	7,815
Reduction of water consumption	7,067	(2,329)	4,738
Energy	1,296	—	1,296
Other	184	(7)	177
	23,706	(6,996)	16,710

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2017 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	7,990	(1,976)	6,014
Waste management	5,060	(1,573)	3,487
Reduction of electricity consumption	13,606	(3,169)	10,437
Reduction of water consumption	12,948	(2,936)	10,012
Energy	6,051	(317)	5,734
Other	1,164	(135)	1,029
	46,819	(10,106)	36,713

Expenses incurred by the Group for protection and improvement of the environment during 2017 totalled approximately Euros 13.6 million (Euros 12.7 million during 2016 and Euros 11.2 million during 2015).

The Group considers that the environmental risks are adequately controlled by the procedures currently in place.

The Group has not received environmental grants during 2017, 2016 and 2015.

(33) Other Information

Audit fees:

KPMG Auditores, S.L. has invoiced the following fees and expenses for professional services during 2017 and 2016:

	Thousands of Euros	
	31/12/2017	31/12/2016
Audit services	2,039	1,534
Audit-related	427	569
	2,466	2,103

"Audit services" detailed in the above table include the total fees for services rendered in 2017 and 2016, irrespective of the date of invoice.

(33) Other Information (Continued)

"Audit services" include audit services subject to the Spanish Audit Law, amounting to Euros 965 thousand in 2017 (Euros 546 thousand in 2016).

"Audit-related" correspond mainly to services of limited reviews of semi-annual financial statements and comfort letters in relation to debt issues provided by KPMG Auditores, S.L. to Grifols, S.A. during the year ended December 31, 2017. During 2016, they mainly include limited reviews of quarterly financial statements.

Other entities affiliated to KPMG International have invoiced the Group for the following fees and expenses for professional services during 2017 and 2016:

	Thousands of Euros	
	31/12/2017	31/12/2016
Audit services	2,944	2,939
Audit-related	199	—
Tax fees	51	72
Other services	7	131
	3,201	3,142

Other audit firms have invoiced the Group for the following fees and expenses for professional services during 2017 and 2016:

	Thousands of Euros	
	31/12/2017	31/12/2016
Audit services	52	51
Tax fees	—	35
	52	86

(34) Events after the Reporting Period

- Goetech, LLC. ("MedKeeper") acquisition

On 26 January 2018 Grifols has subscribed, through its subsidiary Grifols Shared Services North America, Inc., a capital increase in the amount of US dollars 98 million in the US company Goetech, LLC. based in Denver, Colorado, doing business as MedKeeper. As a result, Grifols holds a 51% interest in Medkeeper and holds a majority position on the board of directors.

Furthermore, Grifols has negotiated a call option to acquire the remaining 49% interest, exercisable during a three-year term and MedKeeper has a put option to sell Grifols said interest exercisable at the end of the three-year period.

Medkeeper's core business is the development and distribution of web and mobile-based platforms for hospital pharmacies that improve quality standards, productivity in the process, control systems and monitoring different preparations while increasing patient safety.

This investment will enhance the activity of the Grifols Hospital Division and it is part of the strategy to underpin this division into the U.S. market.

APPENDIX I
GRIFOLS, S.A. AND SUBSIDIARIES

Information on Group Companies, Associates and others for the years ended 31 December 2017, 2016 and 2015

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017 % shares		31/12/2016 % shares		31/12/2015 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Fully Consolidated Companies										
Diagnostic Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Development and manufacture of diagnostic equipment, instruments and reagents.	—	100.000%	—	100.000%	99.998%	0.002%
Instituto Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Plasma fractioning and the manufacture of haemoderivative pharmaceutical products.	99.998%	0.002%	99.998%	0.002%	99.998%	0.002%
Grifols Worldwide Operations Spain, S.A (formerly Logister, S.A.)	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Services	Manufacture, sale and purchase, commercialisation and distribution of all types of computer products and materials.	—	100.000%	—	100.000%	—	100.000%
Laboratorios Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1989	Industrial	Production of glass- and plastic-packaged parenteral solutions, parenteral and enteral nutrition products and blood extraction equipment and bags.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%
Biomat, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1991	Industrial	Analysis and certification of the quality of plasma used by Instituto Grifols, S.A. It also provides transfusion centres with plasma virus inactivation services (I.P.T.H).	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Grifols Engineering, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	2000	Industrial	Design and development of the Group's manufacturing installations and part of the equipment and machinery used at these premises. The company also renders engineering services to external companies.	99.950%	0.050%	99.950%	0.050%	99.950%	0.050%
Biomat USA, Inc.	2410 Lillyvale Avenue Los Angeles (California) United States	2002	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
Grifols Biologicals LLC.	5555 Valley Boulevard Los Angeles (California) United States	2003	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%
Grifols Australia Pty Ltd.	Unit 5/80 Fairbank Clayton South Victoria 3149 Australia	2009	Industrial	Distribution of pharmaceutical products and the development and manufacture of reagents for diagnostics.	100.000%	—	100.000%	—	100.000%	—
Medion Grifols Diagnostic AG	Bonnstrasse,9 3186 Düngingen Switzerland	2009	Industrial	Development and manufacturing activities in the area of biotechnology and diagnostics.	—	100.000%	—	100.000%	80.000%	—
Grifols Therapeutics LLC.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017		31/12/2016		31/12/2015	
					% shares		% shares		% shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Talecris Plasma Resources, Inc.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
GRI-CEI, S/A Produtos para transfusao (merged with Grifols Brasil, Lda. in 2016)	Rua Umuarama, 263 Condominio Portal da Serra Vila Perneta CEP 83.325-000 Pinhais Paraná, Brazil	2012	Industrial	Production of bags for the extraction, separation, conservation and transfusion of blood components.	—	—	—	—	60.000%	—
Grifols Worldwide Operations Limited	Grange Castle Business Park, Grange Castle , Clondalkin, Dublin 22, Ireland	2012	Industrial	Packaging, labelling, storage, distribution, manufacture and development of pharmaceutical products and rendering of financial services to Group companies.	100.000%	—	100.000%	—	100.000%	—
Progenika Biopharma, S.A.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	90.230%	—	89.250%	56.150%	—
Progenika Latina, S.A. de CV	Periferico Sur N° 4118 Int 8 Col. Jardines del Pedregal CP 01900 Alvaro Obregon DF Mexico	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	—	—	89.250%	—	56.150%
Progenika Inc. (Merged with Grifols Diagnostic Solutions Inc. in 2017)	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, DE 19808 United States	2013	Industrial	Development, production and commercialisation of genetic tools, diagnostic equipment and therapeutic systems and products for personalised medicine and the highest quality healthcare in general.	—	—	—	89.250%	—	56.150%
Brainco Biopharma, S.L. (merged with Progenika Biopharma, S.A in 2016)	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development of products for the treatment and diagnosis of psychiatric illnesses	—	—	—	—	—	28.423%
Abyntek Biopharma, S.L.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Research, development and transfer of biotechnological products and processes, as well as the commercialiation of products and services related to the biosciences.	—	—	—	80.370%	—	45.129%
Asociación I+D Progenika	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Coordination, representation, management and promotion of the common interests of associated companies, in addition to contributing to the development, growth and internationalisation of its associates and of the biosciences sector in the Basque Country.	—	90.230%	—	89.250%	—	55.336%
Grifols Diagnostics Solutions Inc (formerly G-C Diagnostics Corp.)	4560 Horton Street 94608 Emeryville, California United States	2013	Industrial	Manufacture and sale of blood testing products	100.000%	—	100.000%	—	100.000%	—
Grifols Worldwide Operations USA Inc.	13111 Temple Avenue, City of Industry, California 91746-1510 Estados Unidos	2014	Industrial	The manufacture, warehousing, and logistical support for biological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Asia Pacific Pte, Ltd	501 Orchard Road n° 20-01 238880 Wheelock Place, Singapore	2003	Commercial	Distribution and sale of medical and pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols Movaco, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Commercial	Distribution and sale of reagents, chemical products and other pharmaceutical specialities, and of medical and surgical materials, equipment and instruments for use by laboratories and health centres.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017		31/12/2016		31/12/2015	
					% shares		% shares		% shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Portugal Productos Farmacéuticos e Hospitalares, Lda.	Rua de Sao Sebastiao, 2 Zona Industrial Cabra Figa 2635-448 Rio de Mouro Portugal	1988	Commercial	Import, export and commercialisation of pharmaceutical and hospital equipment and products, particularly Grifols products.	0.010%	99.990%	0.010%	99.990%	0.010%	99.990%
Grifols Chile, S.A.	Avda. Americo Vespucio, 2242 Comuna de Conchali Santiago de Chile Chile	1990	Commercial	Development of pharmaceutical businesses, which can involve the import, production, commercialisation and export of related products.	99.000%	—	99.000%	—	99.000%	—
Grifols USA, LLC.	2410 Lillyvale Avenue Los Angeles (California) Estados Unidos	1990	Commercial	Distribution and marketing of company products.	—	100.000%	—	100.000%	—	100.000%
Grifols Argentina, S.A.	Bartolomé Mitre 3690/3790, CPB1605BUT Munro Partido de Vicente Lopez Argentina	1991	Commercial	Clinical and biological research. Preparation of reagents and therapeutic and diet products. Manufacture and commercialisation of other pharmaceutical specialities.	95.010%	4.990%	95.010%	4.990%	95.010%	4.990%
Grifols s.r.o.	Calle Zitna,2 Prague Czech Republic	1992	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products, including human plasma.	100.000%	—	100.000%	—	100.000%	—
Grifols (Thailand) Ltd	191 Silom Complex Building, 21st Follor, Silom Road, Silom, Bangrak 10500 Bangkok Thailand	2003	Commercial	Import, export and distribution of pharmaceutical products.	—	48.000%	—	48.000%	—	48.000%
Grifols Malaysia Sdn Bhd	Level 18, The Gardens North Tower, Mid Valley City, Lingkaran Syed Putra 59200 Kuala Lumpur Malaysia	2003	Commercial	Distribution and sale of pharmaceutical products.	—	30.000%	—	30.000%	—	30.000%
Grifols International, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1997	Commercial	Coordination of the marketing, sales and logistics for all the Group's subsidiaries operating in other countries.	99.998%	0.002%	99.998%	0.002%	99.998%	0.002%
Grifols Italia S.p.A	Via Carducci, 62d 56010 Ghezzano Pisa, Italy	1997	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols UK Ltd.	Gregory Rowcliffe & Milners, 1 Bedford Row, London WC1R 4BZ United Kingdom	1997	Commercial	Distribution and sale of therapeutic and other pharmaceutical products, especially haemoderivatives.	100.000%	—	100.000%	—	100.000%	—
Grifols Brasil, Lda.	Rua Umuarama, 263 Condominio Portal da Serra Vila Perneta CEP 83.325-000 Pinhais Paraná, Brazil	1998	Commercial	Import and export, preparation, distribution and sale of pharmaceutical and chemical products for laboratory and hospital use, and medical-surgical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols France, S.A.R.L.	Arteparc, Rue de la Belle du Canet, Bât. D, Route de la Côte d'Azur, 13590 Meyreuil France	1999	Commercial	Commercialisation of chemical and healthcare products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Polska Sp.z.o.o.	Grzybowska 87 street 00-844 Warsaw, Poland	2003	Commercial	Distribution and sale of pharmaceutical, cosmetic and other products.	100.000%	—	100.000%	—	100.000%	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017		31/12/2016		31/12/2015	
					% shares		% shares		% shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Logística Grifols, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	2008	Commercial	Manufacture and commercialisation of pharmaceutical products for human and veterinary use.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols México, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	1993	Commercial	Production, manufacture, adaptation, conditioning, sale and purchase, commissioning, representation and consignment of all kinds of pharmaceutical products and the acquisition of machinery, equipment, raw materials, tools, movable goods and property for the aforementioned purposes.	99.980%	0.020%	99.980%	0.020%	99.980%	0.020%
Medion Diagnostics GmbH	Lochamer Schlag, 12D 82166 Gräfelfing Germany	2009	Commercial	Distribution and sale of biotechnological and diagnostic products.	—	100.000%	—	100.000%	—	80.000%
Grifols Nordic, AB	Sveavägen 166 11346 Stockholm Sweden	2010	Commercial	Research and development, production and marketing of pharmaceutical products, medical devices and any other asset deriving from the aforementioned activities.	100.000%	—	100.000%	—	100.000%	—
Grifols Colombia, Ltda	Carrera 7 No. 71 52 Torre B piso 9 Bogotá. D.C. Colombia	2010	Commercial	Sale, commercialisation and distribution of medicines, pharmaceutical (including but not limited to haemoderivatives) and hospital products, medical devices, biomedical equipment, laboratory instruments and reagents for diagnosis and/or healthcare software.	99.000%	1.000%	99.000%	1.000%	99.000%	1.000%
Grifols Deutschland GmbH	Lyoner Strasse 15, D-60528 Frankfurt am Main Germany	2011	Commercial	Procurement of the official permits and necessary approval for the production, commercialisation and distribution of products deriving from blood plasma, as well as the import, export, distribution and sale of reagents and chemical and pharmaceutical products, especially for laboratories and health centres and surgical and medical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols Canada, Ltd.	5060 Spectrum Way, Suite 405 (Principal Address) Mississauga, Ontario L4W 5N5 Canada	2011	Commercial	Distribution and sale of biotechnological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Pharmaceutical Technology (Shanghai) Co., Ltd. (formerly Grifols Pharmaceutical Consulting (Shanghai) Co., Ltd.)	Unit 901-902, Tower 2, No. 1539, West Nanjing Rd., Jing'an District, Shanghai 200040 China	2013	Commercial	Pharmaceutical consultancy services (except for diagnosis), technical and logistical consultancy services, business management and marketing consultancy services.	100.000%	—	100.000%	—	100.000%	—
Grifols Switzerland AG	Steinengraben, 5 40003 Basel Switzerland	2013	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devices and diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols (H.K.), Limited	Units 1505-7 Bershire House, 25 Westlands Road Hong Kong	2014	Commercial	Distribution and sale of diagnostic products.	—	100.000%	—	100.000%	—	100.000%
Grifols Japan K.K.	Hilton Plaza West Office Tower, 19th floor. 2-2, Umeda 2-chome, Kita-ku Osaka-shi Japan	2014	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devices and diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols India Healthcare Private Ltd	Regus Business Centre Pvt.Ltd.,Level15,Dev Corpora, Plot No.463,Nr. Khajana East.Exp.Highway, Thane (W), Mumbai - 400604, Maharashtra India	2014	Commercial	Distribution and sale of pharmaceutical products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017 % shares		31/12/2016 % shares		31/12/2015 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Diagnostics Equipment Taiwan Limited	8F., No.367, Fuxing N. RD., Songshang Dist., Taipei City 10543, Taiwan	2016	Commercial	Distribution and sale of diagnostic products.	100.000%	—	100.000%	—	—	—
Grifols Viajes, S.A.	Can Guasch, 2 08150 Parets del Vallès Barcelona, Spain	1995	Services	Travel agency exclusively serving Group companies.	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Squadron Reinsurance Designated Activity Company (formerly Squadron Reinsurance Ltd.)	The Metropolitan Building, 3rd Fl. James Joyce Street, Dublin Ireland	2003	Services	Reinsurance of Group companies' insurance policies.	—	100.000%	—	100.000%	—	100.000%
Grifols Shared Services North America, Inc. (formerly Grifols Inc.)	2410 Lillivale Avenue 90032 Los Angeles, California United States	2011	Services	Support services for the collection, manufacture, sale and distribution of plasma derivatives and related products.	100.000%	—	100.000%	—	100.000%	—
Gripdan Invest, S.L	Avenida Diagonal 477 Barcelona, Spain	2015	Services	Manufacturing buildings for rent	100.000%	—	100.000%	—	100.000%	—
Gri-Cel, S.A.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2009	Research	Research and development in the field of regenerative medicine, awarding of research grants, subscription to collaboration agreements with entities and participation in projects in the area of regenerative medicine.	0.001%	99.999%	0.001%	99.999%	0.001%	99.999%
Araclon Biotech, S.L.	Paseo de Sagasta, 17 2º izqda. Zaragoza, Spain	2012	Research	Creation and commercialisation of a blood diagnosis kit for the detection of Alzheimer's and development of effective immunotherapy (vaccine) against this disease.	—	73.220%	—	73.220%	—	70.830%
VCN Bioscience, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2012	Research	Research and development of therapeutic approaches for tumours for which there is currently no effective treatment.	—	81.340%	—	81.340%	—	68.010%
Grifols Innovation and New Technologies Limited	Grange Castle Business Park, Grange Castle , Clondalkin, Dublin 22, Ireland	2016	Research	Research and experimental development on biotechnology	—	100.000%	—	100.000%	—	—
PBS Acquisition Corp.	2711 Centerville Road Suite 400, Wilmington, Delaware, New Castle County United States	2016	Services	Engage in any lawful act or activity for which corporations may be organized under the DGCL (Delaware Code)	—	100.000%	—	100.000%	—	—
Kiro Grifols S.L (formerly Kiro Robotics S.L)	Polígono Bainuetxe, 5, 2º planta, Aretxabaleta, Guipúzcoa Spain	2014	Research	Development of machines and equipment to automate and control key points of hospital processes, and hospital pharmacy processes.	90.000%	—	—	—	—	—
Chiquito Acquisition Corp.	2711 Centerville Road Suite 400, Wilmington, Delaware, County of New Castle, United States	2017	Corporate	Engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware, as amended from time to time (the "DGCL").	—	100.000%	—	—	—	—
Equity Method consolidated companies and others										
Nanotherapix, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2010	Research	Development, validation and production of the technology required to implement the use of genetic and cellular therapy for the treatment of human and animal pathologies.	—	—	—	—	—	51.000%
Aradigm Corporation	3929 Point Eden Way Hayward, California United States	2013	Research	Development and commercialisation of drugs delivered by inhalation for the prevention and treatment of severe respiratory diseases.	—	35.130%	—	35.130%	35.000%	—
TiGenix N.V.	Romeinse straat 12 bus 2, 3001 Leuven, Belgium	2013	Research	Research and development of therapies based on stem cells taken from adipose tissue.	—	14.180%	—	16.130%	—	19.280%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2017 % shares		31/12/2016 % shares		31/12/2015 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Mecwins, S.L.	Avenida Fernandos Casas Novoa, 37 Santiago de Compostela Spain	2013	Research	Research and production of nanotechnological, biotechnological and chemical solutions.	—	8.420%	—	8.420%	—	8.420%
Kiro Grifols S.L (formerly Kiro Robotics S.L)	Polígono Bainuetxe, 5, 2º planta, Aretxabaleta, Guipúzcoa Spain	2014	Research	Development of machines and equipment to automate and control key points of hospital processes, and hospital pharmacy processes.	—	—	50.000%	—	50.000%	—
Alkahest, Inc.	3500 South DuPont Hwy, Dover, County of Kent United States	2015	Research	Development novel plasma-based products for the treatment of cognitive decline in aging and disorders of the central nervous system (CNS).	—	47.580%	—	47.580%	—	47.580%
Albajuna Therapeutics, S.L	Hospital Germans Trias i Pujol, carretera de Canyet, s/n, Badalona Spain	2016	Research	Development and manufacture of therapeutic antibodies against HIV.	—	30.000%	—	30.000%	—	—
Interstate Blood Bank, Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	49.190%	—	49.190%	—	—
Bio Blood Components Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.972%	—	48.972%	—	—
Plasma Biological Services, LLC	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.900%	—	48.900%	—	—
Singulex, Inc.	4041 Forest Park Avenue St. Louis, Missouri United States	2016	Research	Development of the Single Molecule Counting (SMC™) technology for clinical diagnostic and scientific discovery.	—	19.330%	—	20.000%	—	—
Aigües Minerals de Vilajuiga, S.A.	Carrer Sant Sebastià, 2, 17493 Vilajuïga, Girona	2017	Industrial	Collection and use of mineral-medicinal waters and achievement of all necessary administrative concessions in order to facilitate their industrial extraction and find the best way to take advantage of them.	50.000%	—	—	—	—	—
Access Biologicals, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	—	—	—
Access Biologicals IC-DISC, Inc.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	—	—	—
Access Cell Culture, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	—	—	—
Access Manufacturing, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	—	—	—
Access Plasma, LLC.	995 Park Center Dr, Vista, CA 92081, USA	2017	Industrial	Manufacture of biological products, including specific sera and plasma-derived reagents, which are used by biotechnology and biopharmaceutical companies for in-vitro diagnostics, cell culture, and research and development in the diagnostic field.	—	49.000%	—	—	—	—
GigaGen Inc.	407 Cabot Road South San Francisco, CA 94080, USA	2017	Industrial	Engage in any lawful act or activity for which corporations may be organized under General Corporation Law.	—	43.960%	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Operating Segments for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Bioscience			Hospital			Diagnostic			Bio Supplies			Others			Intersegments			Consolidated		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Revenues from external customers	3,429,785	3,195,424	3,032,111	105,649	102,251	96,245	732,369	691,701	716,838	66,791	57,239	24,466	18,263	34,601	90,289	(34,784)	(31,386)	(25,386)	4,318,073	4,049,830	3,934,563
Total operating income	**3,429,785**	**3,195,424**	**3,032,111**	**105,649**	**102,251**	**96,245**	**732,369**	**691,701**	**716,838**	**66,791**	**57,239**	**24,466**	**18,263**	**34,601**	**90,289**	**(34,784)**	**(31,386)**	**(25,386)**	**4,318,073**	**4,049,830**	**3,934,563**
Profit/(Loss) for the segment	**985,495**	**913,840**	**896,032**	**(9,766)**	**(8,765)**	**(4,299)**	**248,080**	**97,320**	**96,268**	**35,598**	**33,794**	**3,660**	**(9,632)**	**44,324**	**77,982**	**(12,305)**	**(1,316)**	**(305)**	**1,237,470**	**1,079,197**	**1,069,338**
Unallocated expenses																			(234,127)	(139,789)	(98,968)
Operating profit																			**1,003,343**	**939,408**	**970,370**
Finance result																			**(287,734)**	**(233,589)**	**(271,840)**
Share of profit/(loss) of equity accounted investee	(10,434)	(9,396)	—	2,112	(5,611)	—	(9,335)	—	—	1,830	—	—	(4,060)	21,940	(8,280)	—	—	—	**(19,887)**	**6,933**	**(8,280)**
Income tax expense																			(34,408)	(168,209)	(158,809)
Profit for the year after tax																			**661,314**	**544,543**	**531,441**
Segment assets	**6,007,153**	**6,524,922**	**6,085,211**	**145,477**	**86,590**	**91,877**	**3,356,185**	**1,909,447**	**1,794,389**	**7,409**	**8,378**	**1,321**	**60,449**	**40,160**	**106,374**	**(22,196)**	**(11,964)**	**(10,240)**	**9,554,477**	**8,557,533**	**8,068,932**
Equity accounted investments	83,905	104,996	—	—	13,888	—	29,322	43,330	—	44,220	—	—	61,562	39,131	76,728	—	—	—	219,009	201,345	76,728
Unallocated assets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,146,778	1,370,894	1,456,055
Total assets																			**10,920,264**	**10,129,772**	**9,601,715**
Segment liabilities	**423,415**	**411,604**	**387,086**	**13,560**	**8,415**	**3,159**	**192,720**	**186,389**	**192,730**	**—**	**—**	**—**	**26,903**	**1,843**	**209,405**	**—**	**—**	**—**	**656,598**	**608,251**	**792,380**
Unallocated liabilities	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,629,701	5,793,543	5,507,946
Total liabilities																			**7,286,299**	**6,401,794**	**6,300,326**
Other information:																					
Amortisation and depreciation allocated	157,478	152,821	137,870	6,436	5,915	5,710	40,815	32,180	31,875	—	—	—	2,237	3,445	6,946	—	—	—	**206,966**	**194,361**	**182,401**
Amortisation and depreciation unallocated		—	—		—	—		—	—	—	—	—	—	—	—	—	—	—	**8,524**	**7,508**	**7,354**
Expenses that do not requirecash payments allocated	7,049	16,219	627	(514)	306	108	(4,423)	(2,001)	4,630	—	—	—	—	(32,534)	—	—	—	—	**2,112**	**(18,010)**	**5,365**
Expenses that do not require cash payments unallocated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**(58,752)**	**4,608**	**4,794**
Additions for the year of property, plant & equipment and intangible assets allocated	227,635	197,741	421,020	10,429	9,193	7,972	70,032	89,760	68,740	198	84	—	20,911	13,313	—	—	—	—	**329,205**	**310,091**	**497,732**
Additions for the year of property, plant & equipment and intangible assets unallocated	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	**11,268**	**12,011**	**79,082**

* As a result of the creation of Bio Supplies segment and intersegments, the Group has reviewed the allocation of balances and transactions by segments. The comparative figures for years 2016 and 2015 have been restated accordingly.

This appendix forms an integral part of note 6 to the consolidated annual accounts

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Reporting by geographical area
for the years ended 31 December 2017, 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Spain			Rest of European Union			USA + Canada			Rest of World			Consolidated		
	2017	**2016**	**2015**	**2017**	**2016**	**2015**	**2017**	**2016**	**2015**	**2017**	**2016**	**2015**	**2017**	**2016**	**2015**
Net Revenue	**242,894**	**225,273**	**216,548**	**444,089**	**426,223**	**456,919**	**2,896,505**	**2,707,579**	**2,604,315**	**734,585**	**690,755**	**656,781**	**4,318,073**	**4,049,830**	**3,934,563**
Assets by geographical area	**899,223**	**847,467**	**719,557**	**2,397,200**	**2,467,295**	**2,407,178**	**7,341,174**	**6,535,420**	**6,176,548**	**282,667**	**279,590**	**298,432**	**10,920,264**	**10,129,772**	**9,601,715**
Other information:															
Additions for the year of property, plant & equipment and intangible assets	62,271	73,365	113,652	80,910	39,603	51,943	188,557	190,358	400,065	8,735	18,776	11,154	340,473	322,102	576,814

This appendix forms an integral part of note 6 to the consolidated annual accounts

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2017
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2016	Additions	Business combinations*	Transfers	Disposals	Translation differences	Balances at 31/12/2017
Development costs	142,693	43,152	142,529	—	(81)	(16,599)	311,694
Concessions, patents, licenses brands & similar	60,471	—	142,174	—	—	(19,760)	182,885
Computer software	168,623	19,626	26	529	(126)	(13,733)	174,945
Currently marketed products	1,162,204	—	—	—	—	(137,828)	1,024,376
Other intangible assets	148,682	17,348	—	—	—	(18,723)	147,307
Total cost of intangible assets	1,682,673	80,126	284,729	529	(207)	(206,643)	1,841,207
Accum. amort. of development costs	(72,073)	(5,834)	—	—	—	(1,442)	(79,349)
Accum. amort of concessions, patents, licenses, brands & similar	(24,994)	(6,004)	—	—	—	1,215	(29,783)
Accum. amort. of computer software	(99,927)	(13,549)	—	—	111	7,046	(106,319)
Accum. amort. of currently marketed products	(220,988)	(38,216)	—	—	—	28,136	(231,068)
Accum. amort. of other intangible assets	(69,389)	(865)	—	—	—	8,288	(61,966)
Total accum. amort intangible assets	(487,371)	(64,468)	—	—	111	43,243	(508,485)
Impairment of other intangible assets	—	(64,734)	—	—	—	1,354	(63,380)
Carrying amount of intangible assets	**1,195,302**	**(49,076)**	**284,729**	**529**	**(96)**	**(162,046)**	**1,269,342**

(See note 3)

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2015	Additions	Transfers	Disposals	Translation differences	Balances at 31/12/2016
Development costs	112,688	29,126	—	(79)	958	142,693
Concessions, patents, licenses brands & similar	59,249	—	—	—	1,222	60,471
Computer software	144,976	18,919	1,460	(420)	3,688	168,623
Currently marketed products	1,126,024	—	—	—	36,180	1,162,204
Other intangible assets	134,068	10,469	—	(651)	4,796	148,682
Total cost of intangible assets	1,577,005	58,514	1,460	(1,150)	46,844	1,682,673
Accum. amort. of development costs	(67,551)	(4,473)	—	—	(49)	(72,073)
Accum. amort of concessions, patents, licenses, brands & similar	(23,957)	(806)	—	—	(231)	(24,994)
Accum. amort. of computer software	(83,197)	(15,136)	(99)	419	(1,914)	(99,927)
Accum. amort. of currently marketed products	(175,135)	(38,441)	—	—	(7,412)	(220,988)
Accum. amort. of other intangible assets	(65,627)	(2,117)	—	544	(2,189)	(69,389)
Total accum. amort intangible assets	(415,467)	(60,973)	(99)	963	(11,795)	(487,371)
Impairment of other intangible assets	34	—	—	(34)	—	—
Carrying amount of intangible assets	**1,161,572**	**(2,459)**	**1,361**	**(221)**	**35,049**	**1,195,302**

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended
31 December 2017
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2016	Additions	Business combination	Transfers	Disposals	Translation differences	Balances at 31/12/2017
Cost:							
Land and buildings	687,856	28,503	19,628	12,694	(823)	(74,324)	673,534
Plant and machinery	1,655,837	82,234	9,068	123,816	(10,098)	(156,178)	1,704,679
Fixed Assets under construction	275,003	149,610	555	(137,073)	—	(25,976)	262,119
	2,618,696	260,347	29,251	(563)	(10,921)	(256,478)	2,640,332
Accumulated depreciation:							
Buildings	(59,376)	(14,708)	—	—	710	6,609	(66,765)
Plant and machinery	(746,268)	(136,314)	—	34	7,993	63,773	(810,782)
	(805,644)	(151,022)	—	34	8,703	70,382	(877,547)
Impairment of other property, plant and equipment	(3,200)	258	—	—	—	210	(2,732)
Carrying amount	**1,809,852**	**109,583**	**29,251**	**(529)**	**(2,218)**	**(185,886)**	**1,760,053**
			(See note 3)				

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended
31 December 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of any discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2015	Additions	Transfers	Disposals	Translation differences	Balances at 31/12/2016
Cost:						
Land and buildings	613,476	12,993	44,060	(780)	18,107	687,856
Plant and machinery	1,431,030	87,536	116,724	(19,515)	40,062	1,655,837
Fixed Assets under construction	263,610	163,059	(162,292)	—	10,626	275,003
	2,308,116	263,588	(1,508)	(20,295)	68,795	2,618,696
Accumulated depreciation:						
Buildings	(44,057)	(13,777)	(2)	178	(1,718)	(59,376)
Plant and machinery	(616,369)	(127,119)	149	13,605	(16,534)	(746,268)
	(660,426)	(140,896)	147	13,783	(18,252)	(805,644)
Impairment of other property, plant and equipment	(3,288)	147	—	—	(59)	(3,200)
Carrying amount	1,644,402	122,839	(1,361)	(6,512)	50,484	1,809,852

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2017
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of any discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2017:	
Projected profits net of taxes until 31/12/2017	273,472
Less, charge required to legal reserve	—
Estimated profits distributable for 2017	273,472
Interim dividend distributed	122,986
Forecast cash for the period 15 December 2017 to 15 December 2018:	
Cash balances at 15 December 2017	—
Projected amounts collected	475,209
Projected payments, including interim dividend	468,117
Projected cash balances at 15 December 2018	7,092

This appendix forms an integral part of note 15 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of any discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2016:	
Projected profits net of taxes until 31/12/2016	319,133
Less, charge required to legal reserve	—
Estimated profits distributable for 2016	319,133
Interim dividend distributed	122,908
Forecast cash for the period 07 December 2016 to 07 December 2017:	
Cash balances at 07 December 2016	5,521
Projected amounts collected	497,058
Projected payments, including interim dividend	471,686
Projected cash balances at 07 December 2017	30,893

This appendix forms an integral part of note 15 to the consolidated annual accounts.

KPMG Auditores, S.L.
Torre Realia
Plaça d'Europa, 41-43
08908 L'Hospitalet de Llobregat
(Barcelona)

Independent Auditor's Report on the Consolidated Annual Accounts

(Translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails.)

To the Shareholders of
Grifols, S.A.

Report on the consolidated annual accounts

We have audited the accompanying consolidated annual accounts of Grifols, S.A. (the "Company") and its subsidiaries (the "Group"), which comprise the consolidated balance sheet at 31 December 2016 and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and consolidated notes.

Directors' responsibility for the consolidated annual accounts

The Company's Directors are responsible for the preparation of the accompanying consolidated annual accounts in such a way that they present fairly the consolidated equity, consolidated financial position and consolidated financial performance of Grifols, S.A. and subsidiaries in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and other provisions of the financial reporting framework applicable to the Group in Spain, and for such internal control that they determine is necessary to enable the preparation of consolidated annual accounts that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated annual accounts based on our audit. We conducted our audit in accordance with prevailing legislation regulating the audit of accounts in Spain. This legislation requires that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated annual accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated annual accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated annual accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the preparation of the consolidated annual accounts by the Company's Directors in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated annual accounts taken as a whole.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the accompanying consolidated annual accounts present fairly, in all material respects, the consolidated equity and consolidated financial position of Grifols, S.A. and subsidiaries at 31 December 2016 and their consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and other provisions of the financial reporting framework applicable in Spain.

Report on other legal and regulatory requirements

The accompanying consolidated directors' report for 2016 contains such explanations as the Directors of Grifols, S.A. consider relevant to the situation of the Group, its business performance and other matters, and is not an integral part of the consolidated annual accounts. We have verified that the accounting information contained therein is consistent with that disclosed in the consolidated annual accounts for 2016. Our work as auditors is limited to the verification of the consolidated directors' report within the scope described in this paragraph and does not include a review of information other than that obtained from the accounting records of Grifols, S.A. and subsidiaries.

KPMG Auditores, S.L.

(*Signed on the original in Spanish*)

Olga Sánchez López

27 February 2017

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets
at 31 December 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Assets	31/12/16	31/12/15
Goodwill (note 7)	3,643,995	3,532,359
Other intangible assets (note 8)	1,195,302	1,161,572
Property, plant and equipment (note 9)	1,809,852	1,644,402
Investments in equity-accounted investees (note 10)	201,345	76,728
Non-current financial assets		
Non-current financial assets measured at fair value	58,864	0
Non-current financial assets not measured at fair value	30,681	30,388
Total non-current financial assets (note 11)	89,545	30,388
Deferred tax assets (note 27)	67,219	66,794
Total non-current assets	**7,007,258**	**6,512,243**
Inventories (note 12)	1,642,931	1,431,391
Trade and other receivables		
Trade receivables	413,656	362,406
Other receivables	42,299	60,520
Current income tax assets	77,713	60,270
Trade and other receivables (note 13)	533,668	483,196
Other current financial assets (note 11)	2,582	1,294
Other current assets	48,324	31,091
Cash and cash equivalents (note 14)	895,009	1,142,500
Total current assets	**3,122,514**	**3,089,472**
Total assets	**10,129,772**	**9,601,715**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Balance Sheets (Continued)
at 31 December 2016 and 2015

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Equity and liabilities	31/12/16	31/12/15
Share capital	119,604	119,604
Share premium	910,728	910,728
Reserves	1,694,245	1,371,061
Treasury stock	(68,710)	(58,575)
Interim dividend	(122,908)	(119,615)
Profit for the year attributable to the Parent	545,456	532,145
Total equity	3,078,415	2,755,348
Available for sale financial assets	(5,219)	0
Cash flow hedges	0	3,329
Other comprehensive income	(642)	3,035
Translation differences	648,927	534,491
Other comprehensive expenses	643,066	540,855
Equity attributable to the Parent (note 15)	**3,721,481**	**3,296,203**
Non-controlling interests (note 17)	6,497	5,187
Total equity	**3,727,978**	**3,301,390**
Liabilities		
Grants (note 18)	12,196	13,120
Provisions (note 19)	5,118	4,980
Non-current financial liabilities (note 20)	4,712,071	4,597,654
Deferred tax liabilities (note 27)	600,646	631,565
Total non-current liabilities	**5,330,031**	**5,247,319**
Provisions (note 19)	89,588	123,049
Current financial liabilities (note 20)	230,065	262,497
Debts with associates (note 31)	0	443
Trade and other payables		
Suppliers	461,073	409,986
Other payables	142,894	106,171
Current income tax liabilities	7,957	16,196
Total trade and other payables (note 21)	611,924	532,353
Other current liabilities (note 22)	140,186	134,664
Total current liabilities	**1,071,763**	**1,053,006**
Total liabilities	**6,401,794**	**6,300,325**
Total equity and liabilities	**10,129,772**	**9,601,715**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Profit and Loss
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/16	31/12/15	31/12/14
Continuing Operations			
Net revenue (notes 6 and 23)	4,049,830	3,934,563	3,355,384
Cost of sales	(2,137,539)	(2,003,565)	(1,656,170)
Gross Profit	**1,912,291**	**1,930,998**	**1,699,214**
Research and Development	(197,617)	(224,193)	(180,753)
Selling, General and Administration expenses	(775,266)	(736,435)	(660,772)
Operating Expenses	**(972,883)**	**(960,628)**	**(841,525)**
Operating Result	**939,408**	**970,370**	**857,689**
Finance income	9,934	5,841	3,069
Finance costs	(244,829)	(240,335)	(225,035)
Change in fair value of financial instruments	(7,610)	(25,206)	(20,984)
Impairment and gains /(losses) on disposal of financial instruments	—	—	(5)
Exchange differences	8,916	(12,140)	(18,472)
Finance result (note 26)	**(233,589)**	**(271,840)**	**(261,427)**
Share of losses of equity accounted investees (note 10)	6,933	(8,280)	(6,582)
Profit before income tax from continuing operations	**712,752**	**690,250**	**589,680**
Income tax expense (note 27)	(168,209)	(158,809)	(122,597)
Profit after income tax from continuing operations	**544,543**	**531,441**	**467,083**
Consolidated profit for the year	**544,543**	**531,441**	**467,083**
Profit attributable to the Parent	545,456	532,145	470,253
Loss attributable to non-controlling interest (note 17)	(913)	(704)	(3,170)
Basic earnings per share (Euros) (see note 16)	0.80	0.78	0.69
Diluted earnings per share (Euros) (see note 16)	0.80	0.78	0.69

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/16	31/12/15	31/12/14
Consolidated profit for the year	544,543	531,441	467,083
Items for reclassification to profit or loss			
Translation differences	103,833	290,635	303,077
Translation differences / Cash Flow Hedge	(6,809)	—	—
Available for sale financial Assets	(5,219)	—	—
Equity accounted investees (note 10) / Translation differences	10,671	2,673	1,287
Cash flow hedges—effective part of changes in fair value	14,501	55,305	34,556
Cash flow hedges—amounts taken to profit or loss	(7,426)	(25,206)	(20,711)
Other comprehensive income	(4,810)	4,575	(406)
Tax effect	(2,462)	(12,093)	(3,865)
Other comprehensive income for the year, after tax	**102,279**	**315,889**	**313,938**
Total comprehensive income for the year	**646,822**	**847,330**	**781,021**
Total comprehensive income attributable to the Parent	647,667	848,603	783,931
Total comprehensive expense attributable to the non-controlling interests	(845)	(1,273)	(2,910)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Consolidated Statements of Cash Flows
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	31/12/2016	31/12/15	31/12/14
Cash flows from operating activities			
Profit before tax	**712,752**	**690,250**	**589,680**
Adjustments for:	**391,986**	**460,564**	**501,233**
Amortization and depreciation (note 25)	201,869	189,755	189,472
Other adjustments:	190,117	270,809	311,761
(Profit) / losses on equity accounted investments (note 10)	(6,933)	8,280	6,582
Impairment of assets and net provision charges	(23,079)	(564)	(21,388)
(Profit) / losses on disposal of fixed assets	(2,987)	6,721	8,711
Government grants taken to income	(1,681)	(1,854)	(704)
Finance cost / (income)	236,034	256,129	233,954
Other adjustments	(11,237)	2,097	84,606
Change in operating assets and liabilities	**(164,319)**	**(77,058)**	**95,281**
Change in inventories	(173,003)	(120,641)	(97,023)
Change in trade and other receivables	(25,180)	144,405	26,900
Change in current financial assets and other current assets	(2,610)	(5,565)	(2,506)
Change in current trade and other payables	36,474	(95,257)	167,910
Other cash flows used in operating activities	**(387,141)**	**(330,978)**	**(207,266)**
Interest paid	(180,497)	(171,380)	(175,524)
Interest recovered	8,685	4,316	3,401
Income tax (paid) / received	(215,329)	(163,914)	(35,143)
Net cash from operating activities	**553,278**	**742,778**	**978,928**
Cash flows from investing activities			
Payments for investments	**(509,078)**	**(647,417)**	**(1,535,527)**
Group companies, associates and business units (notes 3, 2 (c) and 11)	(202,727)	(58,609)	(1,234,952)
Property, plant and equipment and intangible assets	(292,690)	(567,020)	(287,039)
Property, plant and equipment	(249,416)	(522,587)	(235,894)
Intangible assets	(43,274)	(44,433)	(51,145)
Other financial assets	(13,661)	(21,788)	(13,536)
Proceeds from the sale of investments	**2,426**	**14,307**	**14,423**
Property, plant and equipment	2,426	14,307	14,423
Net cash used in investing activities	**(506,652)**	**(633,110)**	**(1,521,104)**
Cash flows from financing activities			
Proceeds from and payments for equity instruments	(11,766)	12,695	(69,252)
Payments for treasury stock (note 15 (d))	(12,686)	(58,457)	(69,252)
Sales of treasury stock (note 15 (d))	920	71,152	—
Proceeds from and payments for financial liability instruments	(80,149)	28,953	1,226,339
Issue	81,513	178,686	5,197,142
Redemption and repayment	(161,662)	(149,733)	(3,970,803)
Dividends and interest on other equity instruments	(216,151)	(216,772)	(156,007)
Dividends paid	(216,151)	(221,772)	(156,007)
Dividends received	—	5,000	—
Other cash flows from / (used in) financing activities	(21,492)	17,086	(159,962)
Financing costs included on the amortised costs of the debt	—	—	(183,252)
Other amounts from / (used in) financing activities	(21,492)	17,086	23,290
Net cash from/(used in) financing activities	**(329,558)**	**(158,038)**	**841,118**
Effect of exchange rate fluctuations on cash	**35,441**	**111,724**	**71,427**
Net increase in cash and cash equivalents	**(247,491)**	**63,354**	**370,369**
Cash and cash equivalents at beginning of the year	**1,142,500**	**1,079,146**	**708,777**
Cash and cash equivalents at year end	**895,009**	**1,142,500**	**1,079,146**

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Balance at 31 December 2013	119,604	910,728	883,415	345,551	(68,755)	—	(63,490)	—	—	(25,791)	2,101,262	5,942	2,107,204
Translation differences	—	—	—	—	—	—	304,104	—	—	—	304,104	260	304,364
Cash flow hedges	—	—	—	—	—	—	—	—	—	9,980	9,980	—	9,980
Other comprehensive income	—	—	—	—	—	—	—	—	(406)	—	(406)	—	(406)
Other comprehensive expense for the year	—	—	—	—	—	—	304,104	—	(406)	9,980	313,678	260	313,938
Profit/(loss) for the year	—	—	—	470,253	—	—	—	—	—	—	470,253	(3,170)	467,083
Total comprehensive income / (expense) for the year	—	—	—	470,253	—	—	304,104	—	(406)	9,980	783,931	(2,910)	781,021
Net change in treasury stock (note 15 (d))	—	—	—	—	—	(69,252)	—	—	—	—	(69,252)	—	(69,252)
Acquisition of non-controlling interests (note 15 (c))	—	—	(1,706)	—	—	—	—	—	—	—	(1,706)	1,740	34
Other changes	—	—	(105)	—	—	—	—	—	—	—	(105)	(7)	(112)
Interim dividend	—	—	—	—	(85,944)	—	—	—	—	—	(85,944)	—	(85,944)
Distribution of 2013 profit													
Reserves	—	—	275,488	(275,488)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(70,063)	—	—	—	—	—	—	(70,063)	—	(70,063)
Interim dividend	—	—	(68,755)	—	68,755	—	—	—	—	—	—		—
Operations with shareholders or owners	—	—	204,922	(345,551)	(17,189)	(69,252)	—	—	—	—	(227,070)	1,733	(225,337)
Balance at 31 December 2014	119,604	910,728	1,088,337	470,253	(85,944)	(69,252)	240,614	—	(406)	(15,811)	2,658,123	4,765	2,662,888
Translation differences	—	—	—	—	—	—	293,877	—	—	—	293,877	(569)	293,308
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	19,140	19,140	—	19,140
Other comprehensive income	—	—	—	—	—	—	—	—	3,441	—	3,441	—	3,441
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	293,877	—	3,441	19,140	316,458	(569)	315,889
Profit/(loss) for the year	—	—	—	532,145	—	—	—	—	—	—	532,145	(704)	531,441
Total comprehensive income / (expense) for the year	—	—	—	532,145	—	—	293,877	—	3,441	19,140	848,603	(1,273)	847,330
Net change in treasury stock (note 15 (d))	—	—	2,018	—	—	10,677	—	—	—	—	12,695	—	12,695
Acquisition of non-controlling interests (note 15 (c))	—	—	(1,770)	—	—	—	—	—	—	—	(1,770)	1,767	(3)
Other changes	—	—	324	—	—	—	—	—	—	—	324	(72)	252
Interim dividend	—	—	—	—	(119,615)	—	—	—	—	—	(119,615)	—	(119,615)

The accompanying notes form an integral part of the consolidated annual accounts.

GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Changes in Consolidated Equity (Continued)
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Attributable to shareholders of the Parent												
							Accumulated other comprehensive income						
	Share capital	Share premium	Reserves	Profit attributable to Parent	Interim dividend	Treasury stock	Translation differences	Available for sale financial assets	Other comprehensive income	Cash flow hedges	Equity attributable to Parent	Non-controlling interests	Equity
Distribution of 2014 profit													—
Reserves	—	—	368,096	(368,096)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(102,157)	—	—	—	—	—	—	(102,157)	—	(102,157)
Interim dividend	—	—	(85,944)	—	85,944	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	282,724	(470,253)	(33,671)	10,677	—	—	—	—	(210,523)	1,695	(208,828)
Balance at 31 December 2015	119,604	910,728	1,371,061	532,145	(119,615)	(58,575)	534,491	—	3,035	3,329	3,296,203	5,187	3,301,390
Translation differences	—	—	—	—	—	—	114,436	—	—	—	114,436	68	114,504
Available for sale financial assets	—	—	—	—	—	—	—	(5,219)	—	—	(5,219)	—	(5,219)
Cash flow hedges (note 15 (f))	—	—	—	—	—	—	—	—	—	(3,329)	(3,329)	—	(3,329)
Other comprehensive income	—	—	—	—	—	—	—	—	(3,677)	—	(3,677)	—	(3,677)
Other comprehensive income / (expense) for the year	—	—	—	—	—	—	114,436	(5,219)	(3,677)	(3,329)	102,211	68	102,279
Profit/(loss) for the year	—	—	—	545,456	—	—	—	—	—	—	545,456	(913)	544,543
Total comprehensive income / (expense) for the year	—	—	—	545,456	—	—	114,436	(5,219)	(3,677)	(3,329)	647,667	(845)	646,822
Net change in treasury stock (note 15 (d))	—	—	(182)	—	—	(10,135)	—	—	—	—	(10,317)	—	(10,317)
Acquisition of non-controlling interests (note 15 (c))	—	—	(2,737)	—	—	—	—	—	—	—	(2,737)	2,737	—
Other changes	—	—	6,816	—	—	—	—	—	—	—	6,816	(582)	6,234
Interim dividend	—	—	—	—	(122,908)	—	—	—	—	—	(122,908)	—	(122,908)
Distribution of 2015 profit													
Reserves	—	—	319,287	(319,287)	—	—	—	—	—	—	—	—	—
Dividends	—	—	—	(93,243)	—	—	—	—	—	—	(93,243)	—	(93,243)
Interim dividend	—	—	—	(119,615)	119,615	—	—	—	—	—	—	—	—
Operations with shareholders or owners	—	—	323,184	(532,145)	(3,293)	(10,135)	—	—	—	—	(222,389)	2,155	(220,234)
Balance at 31 December 2016	119,604	910,728	1,694,245	545,456	(122,908)	(68,710)	648,927	(5,219)	(642)	—	3,721,481	6,497	3,727,978

The accompanying notes form an integral part of the consolidated annual accounts.

(1) Nature, Principal Activities and Subsidiaries

Grifols, S.A. (hereinafter the Company) was incorporated with limited liability under Spanish law on 22 June 1987. Its registered and tax offices are in Barcelona. The Company's statutory activity consists of providing corporate and business administrative, management and control services, as well as investing in assets and property. Its principal activity involves rendering administrative, management and control services to its subsidiaries.

On 17 May 2006 the Company completed its flotation on the Spanish securities market, which was conducted through the public offering of 71,000,000 ordinary shares of Euros 0.50 par value each and a share premium of Euros 3.90 per share. The total capital increase (including the share premium) amounted to Euros 312.4 million, equivalent to a price of Euros 4.40 per share.

The Company's shares were floated on the Spanish stock exchange IBEX-35 index on 2 January 2008.

All of the Company's shares are listed on the Barcelona, Madrid, Valencia and Bilbao securities markets and on the Spanish Automated Quotation System (SIBE/Continuous Market). On 2 June 2011, Class B non-voting shares were listed on the NASDAQ (USA) and on the Spanish Automated Quotation System (SIBE/Continuous Market).

Grifols, S.A. is the Parent of the subsidiaries listed in Appendix I of this note to the consolidated annual accounts.

Grifols, S.A. and subsidiaries (hereinafter the Group) act on an integrated basis and under common management and their principal activity is the procurement, manufacture, preparation and sale of therapeutic products, especially haemoderivatives.

The main factory locations of the Group's Spanish companies are in Parets del Vallés (Barcelona) and Torres de Cotilla (Murcia), while the US companies are located in Los Angeles, (California, USA), Clayton (North Carolina, USA) and Emeryville (San Francisco, USA).

(2) Basis of Presentation

The consolidated annual accounts have been prepared on the basis of the accounting records of Grifols, S.A. and of the Group companies. The consolidated annual accounts for 2016 have been prepared under International Financial Reporting Standards as adopted by the European Union (IFRS—EU) which for Grifols Group purposes, are identical to the standards as endorsed by the International Accounting Standard Board (IFRS-IASB) to present fairly the consolidated equity and consolidated financial position of Grifols, S.A. and subsidiaries at 31 December 2016, as well as the consolidated results from their operations, consolidated cash flows and consolidated changes in equity for the year then ended.

These consolidated annual accounts for 2016 show comparative figures for 2015 and voluntarily show figures for 2014 from the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows and their corresponding notes thereto.

The Group adopted IFRS-EU for the first time on 1 January 2004 and has been preparing its annual accounts under International Financial Reporting Standards, as adopted by the European Union

(2) Basis of Presentation (Continued)

(IFRS-EU) as required by capital market regulations governing the presentation of financial statements by companies whose debt or own equity instruments are listed on a regulated market.

The Board of Directors of Grifols, S.A. authorized these consolidated annual accounts for issue at their meeting held on 24 February 2017 without any modifications.

In accordance with the provision of section 357 of the Irish Companies Act 2014, the Company has irrevocably guaranteed all liabilities of an Irish subsidiary undertaking, Grifols Worldwide Operations Limited (Ireland) (see Appendix I), for the financial year ended 31 December 2016 as referred to in subsection 1(b) of that Act, for the purposes of enabling Grifols Worldwide Operations Limited to claim exemption from the requirement to file their own annual accounts in Ireland.

(a) Relevant accounting estimates, assumptions and judgments used when applying accounting principles

The preparation of the consolidated annual accounts in conformity with IFRS-EU requires management to make judgments, estimates and assumptions that affect the application of Group accounting policies. The following notes include a summary of the relevant accounting estimates and judgments used to apply accounting policies which have the most significant effect on the amounts recognized in the consolidated annual accounts.

- The assumptions used for calculation of the fair value of financial instruments, in particular, financial derivatives. Financial derivatives are measured based on observable market data (level 2 of fair value hierarchy) (see notes 4(k) and 30). Regarding the valuation of derivative instruments, the selection of the appropriate data within the alternatives requires the use of judgment in qualitative factors such as, which methodology and valuation models are used, and in quantitative factors, data required to be included within the chosen models.
- The assumptions used to test non-current assets and goodwill for impairment. Relevant cash generating units are tested annually for impairment. These are based on risk-adjusted future cash flows discounted using appropriate interest rates. The key assumptions used are specified in note 7. Assumptions relating to risk-adjusted future cash flows and discount rates are based on business forecasts and are therefore inherently subjective. Future events could cause a change in business forecasts, with a consequent adverse effect on the future results of the Group. To the extent considered a reasonably possible change in key assumptions could result in an impairment of goodwill, a sensitivity analysis has been disclosed to show the effect of changes to these assumptions and the effect of the cash generating unit (CGU) on the recoverable amount.
- Useful lives of property, plant and equipment and intangible assets. The estimated useful lives of each category of property, plant and equipment and intangible assets are set out in notes 4(g) and 4(h). Although estimates are calculated by the Company's management based on the best information available at 31 December 2016, future events may require changes to these estimates in subsequent years. Given the large number of individual items of property, plant and equipment it is not considered likely that a reasonably possible change in the assumptions would lead to a material adverse effect. Potential changes to the useful lives of intangible assets are mainly related to the currently marketed products and the useful lives will depend on the life cycle of the same. No

(2) Basis of Presentation (Continued)

significant changes to useful lives are expected. Adjustments made in subsequent years are recognized prospectively.

- Evaluation of the effectiveness of hedging derivatives. The key assumption relates to the measurement of the effectiveness of the hedge. Hedge accounting is only applicable when the hedge is expected to be highly effective at the inception of the hedge and, in subsequent years, in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, throughout the period for which the hedge was designated (prospective analysis) and the actual effectiveness, which can be reliably measured, is within a range of 80%-125% (retrospective analysis) (see notes 4(l), 15(f) and 30).
- Evaluation of the nature of leases (operating or finance). The Group analyses the conditions of the lease contracts at their inception in order to conclude if the risks and rewards have been transferred (see note 4(j) and 9(c)). If the lease contract is renewed or amended the Group conducts a new evaluation.
- Assumptions used to determine the fair value of assets, liabilities and contingent liabilities related to business combinations. Details of the fair value methods used by the Group are provided in note 3.
- Evaluation of the capitalization of development costs (see note 4(h)). The key assumption is related to the estimation of sufficient future economic benefits of the projects.
- Evaluation of provisions and contingencies. Key assumptions relate to the evaluation of the likelihood of an outflow of resources due to a past event, as well as to the evaluation of the best estimate of the likely outcome. These estimates take into account the specific circumstances of each dispute and relevant external advice and therefore are inherently subjective and could change substantially over time as new facts arise and each dispute progresses. Details of the status of various uncertainties involved in significant unresolved disputes are set out in note 29.
- Evaluation of the recoverability of tax credits, including tax loss carryforwards and rights for deductions. Deferred tax assets are recognized to the extent that future taxable profits will be available against which the temporary differences can be utilized, based on management's assumptions relating to the amount and timing of future taxable profits (see notes 4(t) and 27).

No changes have been made to prior year judgments relating to existing uncertainties.

The Group is also exposed to interest rate and currency risks. Refer to sensitivity analysis in note 30.

Grifols management does not consider that there are any assumptions or causes for uncertainty in the estimates which could imply a significant risk of material adjustments arising in the next financial year.

(b) Basis of consolidation

Appendix I shows details of the percentages of direct or indirect ownership of subsidiaries by the Company at 31 December 2016, 2015 and 2014, as well as the consolidation method used in each case for preparation of the accompanying consolidated annual accounts.

(2) Basis of Presentation (Continued)

Subsidiaries in which the Company directly or indirectly owns the majority of equity or voting rights have been fully consolidated. Associates in which the Company owns between 20% and 50% of share capital and over which it has no control but does have significant influence, have been accounted for under the equity method.

Although the Group holds 30% of the shares with voting rights of Grifols Malaysia Sdn Bhd, it controls the majority of the economic and voting rights of Grifols Malaysia Sdn Bhd through a contract with the other shareholder and a pledge on its shares. As a consequence it has been fully consolidated.

Grifols (Thailand) Ltd. has two classes of shares and it grants the majority of voting rights to the class of shares held by the Group. As a consequence it has been fully consolidated.

Changes in associates and joint control are detailed in note 10.

Changes in subsidiaries

In 2016 Grifols incorporated the following companies:

- PBS Acquisition Corp. (USA)
- Grifols Diagnostics Equipment Taiwan Limited (Taiwan)
- Grifols Innovation and New Technologies Limited (Ireland)

On 12 December 2016, the Group company Grifols Innovation and New Technologies Limited has subscribed a share capital increase in the capital of VCN Bioscience, S.L. of Euros 5 million. After this capital increase, Grifols interest has risen to 81.34% in 2016. Grifols subscribed another two capital increases on 14 February 2014 and 16 November 2015 with the Group company Gri-Cel, S.A. of Euros 700 thousand and Euros 2,549 thousand, respectively (see note 3(a)).

With effect as of 1 November 2016, Grifols Brasil, Lda. and Gri-Cei, S.A Produtos para Trasfusao entered into a merger agreement. The surviving company was Grifols Brasil, Lda.

In August 2016, July 2015 and May 2014 Araclon Biotech , S.L carried out three share capital increases of Euros 6.7 million, Euros 6 million and Euros 7 million, respectively. After these capital increases Grifols interest rises to 73.22% in 2016 (see note 15 (c)).

In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After these capital increases, Grifols' interest has risen to 100% in 2016.

On 3 March, 2016 the Group announced the acquisition of a further 32.93% stake in Progenika for Euros 25 million following the exercise of call and put options agreed in February 2013. Grifols has paid 50% of this investment in Grifols B shares (876,777 shares) and the remaining 50% in cash. The Group granted to the selling shareholders the option to resell the Class B shares during the first five days following the acquisition date. As a result, Grifols owns 89.25% of Progenika's share capital at 31 December 2016.

(2) Basis of Presentation (Continued)

With effect as of 1 January 2016, Progenika Biopharma, S.A and Brainco Biopharma, S.L entered into a merger agreement. The surviving company being Progenika Biopharma, S.A.

On 9 February 2015 the Group acquired 100% of the assets of Gripdan Invest, S.L for Euros 46 million in the form of a cash payment.

Effective 1 January 2015:

- Plasmacare, Inc and Biomat USA, Inc entered into a merger agreement, the surviving company being Biomat USA, Inc.
- Proteomika, S.L.U. and Progenika Biopharma, S.A entered into a merger agreement, the surviving company being Progenika Biopharma, S.A.
- Arrahona Optimus, S.L and Grifols, S.A entered into a merger agreement, the surviving company being Grifols, S.A.

In 2014 Grifols incorporated the following companies:

- Grifols Worldwide Operations USA, Inc. (USA)
- Grifols Japan K.K. (Japan)
- Grifols India Healthcare Private Ltd. (India)

On 9 January 2014 the Group acquired the transfusion medicine and immunology Diagnostic unit of the Swiss company Novartis International AG for approximately US Dollars 1,653 million (Euros 1,215 million) (see note 3(b)).

Changes in associates and joint control

Changes in associates and joint control are detailed in note 10.

(c) Amendments to IFRS in 2016, 2015 and 2014

In accordance with IFRS, the following should be noted in connection with the scope of application of IFRS and the preparation of these consolidated annual accounts of the Group.

(2) Basis of Presentation (Continued)

Effective date in 2014

Standards		Mandatory application for annual periods beginning on or after : IASB effective date	EU effective date
IAS 32	Amendments to IAS: Offsetting financial assets and financial liabilities	1 January 2014	1 January 2014
IAS 36	Recoverable amount disclosures for non-financial assets (amendments to IAS 36) (issued on 29 May 2013)	1 January 2014	1 January 2014
IAS 39	Novation of Derivatives and Continuation of hedge Accounting (Amendments to IAS 39))issued on 27 June 2013)	1 January 2014	1 January 2014
IFRIC 21	Interpretation 21 Levies (issued on 20 May 2013)	1 January 2014	17 June 2014(*)
IFRS 10 IFRS 12 IAS 27	Investment entities (amendments to IFRS 10, IFRS 12 and IAS 27) (issued on 31 October 2012)	1 January 2014	1 January 2014

(*) early adopted

Effective date in 2015

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 19	Defined Benefit Plans: employee contributions (amendments to IAS 19)	1 July 2014	1 February 2015(*)
Various	Annual improvements to IFRSs 2010-2012 cycle	1 July 2014	1 February 2015(*)
Various	Annual improvements to IFRSs 2011-2013 cycle	1 July 2014	1 January 2015(*)

(*) early adopted

Effective date in 2016

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 16 IAS 38	Clarification of Acceptable Methods of Depreciation and Amortisation (issued on 12 May 2014)	1 January 2016	1 January 2016
IFRS 11	Accounting for Acquisitions of Interests in Joint Operations (issued on 6 May 2014)	1 January 2016	1 January 2016
IAS 27	Equity Method in Separate Financial Statements (issued on 12 August 2014)	1 January 2016	1 January 2016
Various	Annual Improvements to IFRSs 2012-2014 cycle (issued on 25 September 2014)	1 January 2016	1 January 2016
IAS 1	Disclosure Initiative (issued on 18 December 2014)	1 January 2016	1 January 2016

(2) Basis of Presentation (Continued)

The application of these standards and interpretations has had no material impact on these consolidated annual accounts.

Standards issued but not effective in 2016

Standards		Mandatory application for annual periods beginning on or after: IASB effective date	EU effective date
IAS 12	Recognition of Deferred Tax Assets for Unrealized Losses (issued on 19 January 2016)	1 January 2017	pending
IAS 7	Disclosure Initiative (issued on 29 January 2016)	1 January 2017	pending
Various	Annual improvements to IFRSs 2014 - 2016 cycle (issued on 8 December 2016)—IFRS 12	1 January 2017	pending
IFRS 15	Revenue from contracts with Customers (issued on 28 May 2014)	1 January 2018	1 January 2018
IFRS 15	Clarification to IFRS15 Revenue from Contracts with Customers (issued on 12 April 2016)	1 January 2018	pending
IFRS 9	Financial instruments (issued on 24 July 2014)	1 January 2018	1 January 2018
IFRS 2	Classification and Measurement of Share-based Payment Transactions (issued on 20 June 2016)	1 January 2018	pending
IFRS 4	Applying IFRS 9 Financial Instruments with IFRS4	1 January 2018	pending
IFRS 9	Insurance Contracts (issued on 12 September 2016)		
IFRIC 22	IFRIC 22 Interpretation: Foreign currency translations and Advance Consideration	1 January 2018	pending
IAS 40	Amendments to IAS 40: Transfers of Investment Property	1 January 2018	pending
Various	Annual improvements to IFRSs 2014 - 2016 cycle (issued on 8 December 2016)—IFRS 1, IAS 28	1 January 2018	pending
IFRS 16	Leases (Issued on 13 January 2016)	1 January 2019	pending
IFRS 10 IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (issued on 11 September 2014)	deferred indefinitely	deferred indefinitely

At the date of issue of these consolidated annual accounts, the Group is analyzing the impact of the application of the above standards or interpretations published by the International Accounting Standards Board (IASB). For IFRS 9 and 15, based on preliminary analysis, the Group does not expect that their application would have a material impact on the consolidated annual accounts.

(3) Business Combinations

2015

(a) VCN

On 14 February 2014 and 16 November 2015, the Group company Gri-Cel, S.A, that centralises the Group's investments in R&D projects in fields of medicine other than its core business, subscribed both share capital increases in the capital of VCN Bioscience, S.L for Euros 700 thousand and Euros 2,549 thousand, respectively. After this capital increase, Grifols' interest rises to 68.01% in 2015 and the company is fully consolidated at year end. Since 2016, the Group company GIANT centralize the Group's investments in R&D projects in fields of medicine other than its core business.

2014

(b) Novartis' Diagnostic unit

On 9 January 2014 the Group acquired the transfusion medicine and immunology Diagnostic unit of the Swiss company Novartis International AG for approximately US Dollars 1,653 million (Euros 1,215 million).

This transaction was structured through a newly-created 100% Grifols-owned subsidiary, Grifols Diagnostics Solutions, Inc. (formerly G-C Diagnostics Corp.) (USA) and this transaction was initially financed through a US Dollars 1,500 million bridge loan.

Grifols has expanded its portfolio by including Novartis' diagnostic products for transfusion medicine and immunology, including its highly innovative, market-leading NAT technology (Nucleic Acid Amplification Techniques), instrumentation and equipment for blood screening, specific software and reagents. The assets acquired include patents, brands and licenses, together with the production plant at Emeryville (California, United States) and commercial offices in United States, Switzerland and Hong Kong (for the Asia-Pacific region) among others.

Novartis' Diagnostic business did not operate as a separate legal entity or segment, so the acquired business was structured as an asset deal, with the exception of the Hong Kong subsidiary, which was acquired via a share deal.

This strategic operation strengthened Grifols' Diagnostic division, particularly in the US, with a very strong and specialised commercial organization. It will also diversify Grifols' business by promoting an activity area that complements the Bioscience division. The diagnostic business being purchased from Novartis, focused on guaranteeing the safety of blood donations for transfusions or to be used in the production of plasma derivatives, complements and expands Grifols' existing product range. Grifols will become a vertically integrated company able to provide solutions for blood and plasma donor centers, with the most complete product portfolio in the immunohematology field, including reagents using gel technology, multicard and the new genotyping technologies from Progenika acquired in 2013.

After taking on the employees of Novartis, Grifols' workforce increased by approximately 550 employees.

(3) Business Combinations (Continued)

Details of the aggregate business combination cost, the fair value of the net assets acquired and goodwill at the acquisition date (or the amount by which the business combination cost exceeds the fair value of the net assets acquired) are provided below.

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination	1,214,527	1,652,728
Total business combination cost	1,214,527	1,652,728
Fair value of net assets acquired	226,123	307,707
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired) (note 7)	988,404	1,345,021
Payment in cash	1,214,527	1,652,728
Cash and cash equivalents of the acquired company	(3,900)	(5,307)
Net cash outflow for the acquisition	1,210,627	1,647,421

Goodwill generated in the acquisition was attributed to the workforce and other expected benefits from the business combination of the assets and activities of the Group. Goodwill has been allocated to the "Diagnostic" segment and is tax deductible in the United States.

Royalties relate to several license agreements entered into with pharmaceutical companies to manufacture and sell the licensed products using certain NAT technology-based patents and are presented in the "Raw materials and Other" Segment. Revenues relating to royalties amounted to Euros 76.5 million.

Expenses incurred in this transaction for the year ended 31 December 2014 amount to Euros 8.9 million (Euros 19 million for the fiscal year 2013).

Had the acquisition taken place at 1 January 2014, the Group's revenue and consolidated profit would not have varied significantly. The revenue and operating profit between the acquisition date and 31 December 2014 amounted to Euros 561 million and Euros 117 million, respectively.

(3) Business Combinations (Continued)

The amounts determined at the date of acquisition of assets, liabilities and contingent liabilities acquired were as follows:

	Fair Value	
	Thousands of Euros	Thousands of US Dollars
Intangible assets (note 8)	50,705	69,000
Property, plant and equipment (note 9)	78,841	107,286
Inventories	63,852	86,891
Trade and other receivables	113,978	155,102
Deferred tax assets (note 27)	34,899	47,491
Other assets	2,884	3,926
Cash and cash equivalents	3,900	5,307
Total assets	349,059	475,003
Current provisions (note 19)	66,138	90,000
Trade and other payables	30,652	41,711
Other current liabilities	26,146	35,585
Total liabilities and contingent liabilities	122,936	167,296
Total net assets acquired	226,123	307,707

Fair values were determined using the following methods:

- Intangible assets: the fair value of intangible assets was calculated using the "royalty relief method" based on existing royalty agreements.
- Property, plant and equipment: the fair value of property, plant and equipment was determined using the "cost approach", whereby the value of an asset is measured at the cost of rebuilding or replacing that asset with other similar assets. Fair values were obtained from an independent valuation.
- Contingent liabilities: the fair value of contingent liabilities was determined under different scenarios using the forecast payments and a probability scenario.

(4) Significant Accounting Policies

(a) Subsidiaries and associates

Subsidiaries are entities, including special purpose entities (SPE), over which the Group exercises control, either directly or indirectly, through subsidiaries. The Group controls a subsidiary when it has the substantive rights in force that provide the ability to manage relevant activities. The Group is exposed or has the right to variable returns for its involvement in the subsidiaries when the returns obtained vary depending on the economic performance of the subsidiaries.

(4) Significant Accounting Policies (Continued)

The income, expenses and cash flows of subsidiaries are included in the consolidated annual accounts from the date of acquisition, which is when the Group takes control. Subsidiaries are excluded from the consolidated Group from the date on which control is lost.

Transactions and balances with Group companies and unrealized gains or losses have been eliminated upon consolidation.

The accounting policies of subsidiaries have been adapted to those of the Group for transactions and other events in similar circumstances.

The financial statements of consolidated subsidiaries have been prepared as of the same date and for the same reporting period as the financial statements of the Company.

Associates are entities over which the Company, either directly or indirectly through subsidiaries, exercises significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those entities. The existence of potential voting rights that are exercisable or convertible at the end of each reporting period, including potential voting rights held by the Group or other entities, are considered when assessing whether an entity has significant influence.

Investments in associates are accounted for using the equity method from the date that significant influence commences until the date that significant influence ceases.

Investments in associates are initially recognized at acquisition cost, including any cost directly attributable to the acquisition and any consideration receivable or payable contingent on future events or on compliance with certain conditions.

The excess of the cost of the investment over the Group's share of the fair values of the identifiable net assets is recognized as goodwill, which is included in the carrying amount of the investment. Any shortfall, once the cost of the investment and the identification and measurement of the associate's net assets have been evaluated, is recognized as income when determining the investor's share of the profit and loss of the associate for the year in which it was acquired.

The accounting policies of associates have been harmonized in terms of timing and measurement, applying the policies described for subsidiaries.

The Group's share of the profit and loss of an associate from the date of acquisition is recognized as an increase or decrease in the value of the investments, with a credit or debit to share of the profit and loss for the year of "equity-accounted investees" in the consolidated statement of profit and loss (consolidated statement of comprehensive income). The Group's share of other comprehensive income of associates from the date of acquisition is recognized as an increase or decrease in the investments in associates with a balancing entry recognized by type in other comprehensive income. The distribution of dividends is recognized as a decrease in the value of the investment. The Group's share of profit and loss, including impairment losses recognized by the associates, is calculated based on income and expenses arising from application of the acquisition method.

The Group's share of the profit and loss of an associate and changes in equity is calculated to the extent of the Group's interest in the associate at year end and does not reflect the possible exercise or

(4) Significant Accounting Policies (Continued)

conversion of potential voting rights. However, the Group's share is calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of associates.

Information on the subsidiaries and associates included in the consolidated Group is presented in Appendix I.

(b) Business combinations

On the date of transition to IFRS-EU, 1 January 2004, the Group applied the exception permitted under IFRS 1 "First-time adoption of International Financial Reporting Standards", whereby only those business combinations performed as from 1 January 2004 have been recognized using the acquisition method. Entities acquired prior to that date were recognized in accordance with accounting prevailing at that time, taking into account the necessary corrections and adjustments at the transition date.

The Group applies the revised IFRS 3 "Business combinations" in transactions made subsequent to 1 January 2010.

The Group applies the acquisition method for business combinations.

The acquisition date is the date on which the Group obtains control of the acquiree.

Business combinations made subsequent to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, equity instruments issued and any additional consideration contingent on future events or the fulfilment of certain conditions, in exchange for control of the acquiree.

The consideration paid excludes all amounts that do not form part of the exchange for the acquired business. Acquisition-related costs are accounted for as expenses when incurred. Share increase costs are recognized as equity when the increase takes place and borrowing costs are deducted from the financial liability when it is recognized.

At the acquisition date the Group recognizes at fair value the assets acquired and liabilities assumed. Liabilities assumed include any contingent liabilities that represent present obligations arising from past events for which the fair value can be reliably measured. The Group also recognizes indemnification assets transferred by the seller at the same time and following the same measurement criteria as the item that is subject to indemnification from the acquired business, taking into consideration, where applicable, the insolvency risk and any contractual limit on the indemnity amount.

This criterion does not include non-current assets or disposal groups of assets which are classified as held for sale, long-term defined benefit employee benefit liabilities, share-based payment transactions, deferred tax assets and liabilities and intangible assets arising from the acquisition of previously transferred rights.

(4) Significant Accounting Policies (Continued)

Assets and liabilities assumed are classified and designated for subsequent measurement in accordance with the contractual terms, economic conditions, operating or accounting policies and other factors that exist at the acquisition date, except for leases and insurance contracts.

The excess between the consideration transferred and the value of net assets acquired and liabilities assumed, less the value assigned to non-controlling interests, is recognized as goodwill. Where applicable, any shortfall, after evaluating the consideration transferred, the value assigned to non-controlling interests and the identification and measurement of net assets acquired, is recognized in profit and loss.

When a business combination has been provisionally determined, net identifiable assets have initially been recognized at their provisional value, and any adjustments made during the measurement period have been recorded as if they had been known at that date. Where applicable, comparative figures for the prior year have been restated. Adjustments to the provisional values only reflect information relating to events and circumstances existing at the acquisition date and which, had they been known, would have affected the amounts recognized at that date. Once this period has elapsed, adjustments are only made to initial values when errors must be corrected. Any potential benefits arising from tax losses and other deferred tax assets of the acquiree that have not been recorded as they did not qualify for recognition at the acquisition date, are accounted for as income tax revenue, provided the adjustments were not made during the measurement period.

The contingent consideration is classified in accordance with underlying contractual terms as a financial asset or financial liability, equity instrument or provision. Provided that subsequent changes to the fair value of a financial asset or financial liability do not relate to an adjustment of the measurement period, they are recognized in consolidated profit and loss. The contingent consideration classified, where applicable, as equity is not subject to subsequent change, with settlement being recognized in equity. The contingent consideration classified, where applicable, as a provision is recognized subsequently in accordance with the relevant measurement standard.

Business combinations made prior to 1 January 2010

The cost of the business combination is calculated as the sum of the acquisition-date fair values of the assets transferred, the liabilities incurred or assumed, and equity instruments issued by the Group, in exchange for control of the acquiree, plus any costs directly attributable to the business combination. Any additional consideration contingent on future events or the fulfilment of certain conditions is included in the cost of the combination provided that it is probable that an outflow of resources embodying economic benefits will be required and the amount of the obligation can be reliably estimated. Subsequent recognition of contingent considerations or subsequent variations to contingent considerations is recognized as a prospective adjustment to the cost of the business combination.

Where the cost of the business combination exceeds the Group's interest in the fair value of the identifiable net assets of the entity acquired, the difference is recognized as goodwill, whilst the shortfall, once the costs of the business combination and the fair values of net assets acquired have been reconsidered, is recognized in profit and loss.

(4) Significant Accounting Policies (Continued)

(c) Non-controlling interests

Non-controlling interests in subsidiaries acquired after 1 January 2004 are recognized at the acquisition date at the proportional part of the fair value of the identifiable net assets. Non-controlling interests in subsidiaries acquired prior to the transition date were recognized at the proportional part of the equity of the subsidiaries at the date of first consolidation.

Non-controlling interests are disclosed in the consolidated balance sheet under equity separately from equity attributable to the Parent. Non-controlling interests' share in consolidated profit and loss for the year (and in consolidated comprehensive income for the year) is disclosed separately in the consolidated statement of profit and loss (consolidated statement of comprehensive income).

The consolidated profit and loss for the year, consolidated comprehensive income and changes in equity of the subsidiaries attributable to the Group and non-controlling interests after consolidation adjustments and eliminations, is determined in accordance with the percentage ownership at year end, without considering the possible exercise or conversion of potential voting rights. However, Group and non-controlling interests are calculated taking into account the possible exercise of potential voting rights and other derivative financial instruments which, in substance, currently allow access to the economic benefits associated with the interests held, such as entitlement to a share in future dividends and changes in the value of subsidiaries.

Profit and loss and each component of other comprehensive income are assigned to equity attributable to shareholders of the Parent and to non-controlling interests in proportion to their interest, although this implies a balance receivable from non-controlling interests. Agreements signed between the Group and the non-controlling interests are recognized as a separate transaction.

The increase and reduction of non-controlling interests in a subsidiary in which control is retained is recognized as an equity instrument transaction. Consequently, no new acquisition cost arises on increases, nor is a gain recorded on reductions; rather, the difference between the consideration transferred or received and the carrying amount of the non-controlling interests is recognized in the reserves of the investor, without prejudice to reclassifying consolidation reserves and reallocating other comprehensive income between the Group and the non-controlling interests. When a Group's interest in a subsidiary diminishes, non-controlling interests are recognized at their share of the net consolidated assets, including goodwill.

(d) Joint arrangements

Joint arrangements are those in which there is a contractual agreement to share the control over an economic activity, in such a way that the decisions over relevant activities require the unanimous consent of the Group and the remaining venturers.

Investments in joint arrangements are accounted for using the equity method.

The acquisition cost of investments in joint arrangements is determined consistently with that established for investments in associates.

(4) Significant Accounting Policies (Continued)

(e) Foreign currency transactions and balances

(i) *Functional and presentation currency*

The consolidated annual accounts are presented in thousands of Euros, which is the functional and presentation currency of the Parent.

(ii) *Foreign currency transactions, balances and cash flows*

Foreign currency transactions are translated into the functional currency using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from applying the exchange rate at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies have been translated into thousands of Euros at the closing rate, while non-monetary assets and liabilities measured at historical cost have been translated at the exchange rate prevailing at the transaction date. Non-monetary assets measured at fair value have been translated into thousands of Euros at the exchange rate at the date that the fair value was determined.

In the consolidated statement of cash flows, cash flows from foreign currency transactions have been translated into thousands of Euros at the exchange rates prevailing at the dates the cash flows occur. The effect of exchange rate fluctuations on cash and cash equivalents denominated in foreign currencies is recognized separately in the statement of cash flows as "Effect of exchange rate fluctuations on cash and cash equivalents".

Exchange gains and losses arising on the settlement of foreign currency transactions and the translation into thousands of Euros of monetary assets and liabilities denominated in foreign currencies are recognized in profit and loss.

(iii) *Translation of foreign operations*

The translation into thousands of Euros of foreign operations for which the functional currency is not the currency of a hyperinflationary economy is based on the following criteria:

- Assets and liabilities, including goodwill and net asset adjustments derived from the acquisition of the operations, including comparative amounts, are translated at the closing rate at the reporting date;
- Income and expenses, including comparative amounts, are translated using the previous month's exchange rate for all transactions performed during the current month. This method does not differ significantly from using the exchange rate at the date of the transaction;
- Translation differences resulting from application of the above criteria are recognized in other comprehensive income.

(f) Borrowing costs

In accordance with IAS 23 "Borrowing Costs", since 1 January 2009 the Group recognizes borrowing costs directly attributable to the purchase, construction or production of qualifying assets as an increase in

(4) Significant Accounting Policies (Continued)

the value of these assets. Qualifying assets are those which require a substantial period of time before they can be used or sold. To the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalization is determined as the actual borrowing costs incurred, less any investment income on the temporary investment of those funds. Capitalized borrowing costs corresponding to general borrowing are calculated as the weighted average of the qualifying assets without considering specific funds. The amount of borrowing costs capitalized cannot exceed the amount of borrowing costs incurred during that period. The capitalized borrowing costs include adjustments to the carrying amount of financial liabilities arising from the effective portion of hedges entered into by the Group.

The Group begins capitalizing borrowing costs as part of the cost of a qualifying asset when it incurs expenditure for the asset, interest is accrued, and it undertakes activities that are necessary to prepare the asset for its intended use or sale, and ceases capitalizing borrowing costs when all or substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete. Nevertheless, capitalization of borrowing costs is suspended when active development is interrupted for extended periods.

(g) Property, plant and equipment

(i) *Initial recognition*

Property, plant and equipment are recognized at cost or deemed cost, less accumulated depreciation and any accumulated impairment losses. The cost of self-constructed assets is determined using the same principles as for an acquired asset, while also considering the criteria applicable to production costs of inventories. Capitalized production costs are recognized by allocating the costs attributable to the asset to "Self-constructed non-current assets" in the consolidated statement of profit and loss.

At 1 January 2004 the Group opted to apply the exemption regarding fair value and revaluation as deemed cost as permitted by IFRS 1 First time Adoption of International Financial Reporting Standards.

(ii) *Depreciation*

Property, plant and equipment are depreciated by allocating the depreciable amount of an asset on a systematic basis over its useful life. The depreciable amount is the cost or deemed cost of an asset, less its residual value. The Group determines the depreciation charge separately for each item for a component of property, plant and equipment with a cost that is significant in relation to the total cost of the asset.

Property, plant and equipment are depreciated using the following criteria:

	Depreciation method	Rates
Buildings	Straight line	1% - 3%
Other property, technical equipment and machinery	Straight line	4% - 10%
Other property, plant and equipment	Straight line	7% - 33%

(4) Significant Accounting Policies (Continued)

The Group reviews residual values, useful lives and depreciation methods at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(iii) *Subsequent recognition*

Subsequent to initial recognition of the asset, only those costs incurred which will probably generate future profits and for which the amount may reliably be measured are capitalized. Costs of day-to-day servicing are recognized in profit and loss as incurred.

Replacements of property, plant and equipment which qualify for capitalization are recognized as a reduction in the carrying amount of the items replaced. Where the cost of the replaced items has not been depreciated independently and it is not possible to determine the respective carrying amount, the replacement cost is used as indicative of the cost of items at the time of acquisition or construction.

(iv) *Impairment*

The Group tests for impairment and reversals of impairment losses on property, plant and equipment based on the criteria set out in note 4(i) below.

(h) Intangible assets

(i) *Goodwill*

Goodwill is generated on the business combinations and is calculated using the criteria described in the section on business combinations.

Goodwill is not amortized, but is tested for impairment annually or more frequently whenever there is an indication that goodwill may be impaired. Goodwill acquired in business combinations is allocated to the cash-generating units (CGUs) or groups of CGUs which are expected to benefit from the synergies of the business combination and the criteria described in note 7 are applied. After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

(ii) *Internally generated intangible assets*

Any research and development expenditure incurred during the research phase of projects is recognized as an expense when incurred.

Costs related with development activities are capitalized when:

- The Group has technical studies that demonstrate the feasibility of the production process;
- The Group has undertaken a commitment to complete production of the asset, to make it available for sale or internal use;
- The asset will generate sufficient future economic benefits;

(4) Significant Accounting Policies (Continued)

- The Group has sufficient technical and financial resources to complete development of the asset and has devised budget control and cost accounting systems that enable monitoring of budgetary costs, modifications and the expenditure actually attributable to the different projects.

The cost of internally generated assets by the Group is calculated using the same criteria established for determining production costs of inventories. The production cost is capitalized by allocating the costs attributable to the asset to self-constructed non-current assets in the consolidated statement of profit and loss.

Expenditure on activities that contribute to increasing the value of the different businesses in which the Group as a whole operates is expensed when incurred. Replacements or subsequent costs incurred on intangible assets are generally recognized as an expense, except where they increase the future economic benefits expected to be generated by the assets.

(iii) *Other intangible assets*

Other intangible assets are carried at cost, or at fair value if they arise on business combinations, less accumulated amortization and impairment losses.

Intangible assets with indefinite useful lives are not amortized but tested for impairment at least annually.

(iv) *Intangible assets acquired in business combinations*

The cost of identifiable intangible assets acquired in the business combination of Novartis includes the fair value of the existing royalty agreements.

The cost of identifiable intangible assets acquired in the business combination of the Progenika Group includes the fair value of the currently marketed products sold and which are classified under "Other intangible assets" and "Development costs".

The cost of identifiable intangible assets acquired in the Talecris business combination includes the fair value of currently marketed products sold and which are classified under "Other intangible assets".

(v) *Useful life and amortization rates*

The Group assesses whether the useful life of each intangible asset acquired is finite or indefinite. An intangible asset is regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset will generate net cash inflows.

(4) Significant Accounting Policies (Continued)

Intangible assets with finite useful lives are amortized by allocating the depreciable amount of an asset on a systematic basis over its useful life, by applying the following criteria:

	Amortisation method	Rates
Development expenses	Straight line	20% - 33%
Concessions, patents, licences, trademarks and similar	Straight line	7% - 20%
Computer software	Straight line	16% - 33%
Currently marketed products	Straight line	3% - 10%

The depreciable amount is the cost or deemed cost of an asset, less its residual value.

The Group does not consider the residual value of its intangible assets to be material. The Group reviews the residual value, useful life and amortization method for intangible assets at each financial year end. Changes to initially established criteria are accounted for as a change in accounting estimates.

(i) Impairment of goodwill, other intangible assets and other non-financial assets subject to depreciation or amortization

The Group evaluates whether there are indications of possible impairment losses on non-financial assets subject to amortization or depreciation, to verify whether the carrying amount of these assets exceeds the recoverable amount.

The Group tests goodwill, intangible assets with indefinite useful lives and intangible assets with finite useful lives that are not available for use for potential impairment at least annually, irrespective of whether there is any indication that the assets may be impaired.

The recoverable amount of the assets is the higher of their fair value less costs of disposal and their value in use. An asset's value in use is calculated based on an estimate of the future cash flows expected to derive from the use of the asset, expectations about possible variations in the amount or timing of those future cash flows, the time value of money, the price for bearing the uncertainty inherent in the asset and other factors that market participants would reflect in pricing the future cash flows deriving from the asset.

Negative differences arising from comparison of the carrying amounts of the assets with their recoverable amounts are recognized in the consolidated statement of profit and loss. Recoverable amount is determined for each individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the cash-generating unit (CGU) to which the asset belongs.

Impairment losses recognized for cash-generating units are first allocated to reduce, where applicable, the carrying amount of goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset. The carrying amount of each asset may not be reduced below the highest of its fair value less costs of disposal, its value in use and zero.

At the end of each reporting period the Group assesses whether there is any indication that an impairment loss recognized in prior periods may no longer exist or may have decreased. Impairment losses

(4) Significant Accounting Policies (Continued)

on goodwill are not reversible. Impairment losses on other assets are only reversed if there has been a change in the estimates used to calculate the recoverable amount of the asset.

A reversal of an impairment loss is recognized in consolidated profit and loss. The increased carrying amount of an asset attributable to a reversal of an impairment loss may not exceed the carrying amount that would have been determined, net of depreciation or amortization, had no impairment loss been recognized.

A reversal of an impairment loss for a CGU is allocated to the assets of each unit, except goodwill, pro rata with the carrying amounts of those assets. The carrying amount of an asset may not be increased above the lower of its recoverable amount and the carrying amount that would have been disclosed, net of amortization or depreciation, had no impairment loss been recognized.

(j) Leases

(i) *Lessee accounting records*

The Group has rights to use certain assets through lease contracts.

Leases in which the Group assumes substantially all the risks and rewards incidental to ownership are classified as finance leases, otherwise they are classified as operating leases.

• Finance leases

At the commencement of the lease term, the Group recognizes finance leases as assets and liabilities at the lower of the fair value of the leased asset and the present value of the minimum lease payments. Initial direct costs are added to the asset's carrying amount. Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Contingent rents are recognized as an expense in the years in which they are incurred.

• Operating leases

Lease payments under an operating lease (excluding incentives) are recognized as an expense on a straight-line basis unless another systematic basis is representative of the time pattern of the user's benefit.

(ii) *Leasehold investments*

Non-current investments in properties leased from third parties are recognized on the basis of the same criteria for property, plant and equipment. Investments are amortized over the lower of their useful lives and the term of the lease contract. The lease term is consistent with that established for recognition of the lease.

(4) Significant Accounting Policies (Continued)

(iii) *Sale and leaseback transactions*

Any profit on sale and leaseback transactions that meet the conditions of a finance lease is deferred over the term of the lease.

When the leaseback is classified as an operating lease:

- If the transaction is established at fair value, any profit and loss on the sale is recognized immediately in the consolidated statement of profit and loss for the year;
- If the sale price is below fair value, any profit and loss is recognized immediately in the consolidated statement of profit and loss. However, if the loss is compensated for by future lease payments at below market price, it is deferred in proportion to the lease payments over the period for which the asset is to be used.

(k) Financial instruments

(i) *Classification of financial instruments*

Financial instruments are classified on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement and the definitions of a financial liability, a financial asset and an equity instrument set out in IAS 32, Financial Instruments: Presentation.

Financial instruments are classified into the following categories for valuation purposes: financial assets and financial liabilities at fair value through profit and loss, loans and receivables, held-to-maturity investments, available-for-sale financial assets and financial liabilities. Financial instruments are classified into different categories based on the nature of the instruments and the Group's intentions on initial recognition.

Regular way purchases and sales of financial assets are recognized using trade date accounting, i.e. when the Group commits itself to purchase or sell an asset.

a) Financial assets and liabilities at fair value through profit and loss

Financial assets and financial liabilities at fair value through profit and loss are those which are classified as held for trading or which the Group designated as such on initial recognition.

A financial asset or financial liability is classified as held for trading if:

- It is acquired or incurred principally for the purpose of selling or repurchasing it in the near term;
- It forms part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking, or
- It is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

(4) Significant Accounting Policies (Continued)

Financial assets and financial liabilities at fair value through profit and loss are initially recognized at fair value. Transaction costs directly attributable to the acquisition or issue are recognized as an expense when incurred.

After initial recognition, they are recognized at fair value through profit and loss.

The Group does not reclassify any financial assets or liabilities from or to this category while they are recognized in the consolidated balance sheet.

b) Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, other than those classified in other financial asset categories. These assets are recognized initially at fair value, including transaction costs, and subsequently measured at amortized cost using the effective interest method.

c) Financial assets and financial liabilities carried at cost

Investments in equity instruments whose fair value cannot be reliably measured and derivative instruments that are linked to these instruments and that must be settled by delivery of such unquoted equity instruments, are measured at cost. Nonetheless, if the financial assets or liabilities can be reliably measured subsequently on an ongoing basis, they are accounted for at fair value and any gain or loss is recognized in accordance with their classification.

(ii) *Offsetting principles*

A financial asset and a financial liability are offset only when the Group currently has the legally enforceable right to offset the recognized amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

(iii) *Fair value*

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorized within different levels of a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2: inputs other than prices included in Level 1 that are observable for the asset or liability, either directly (i.e. derived from prices) or indirectly.
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability are categorized within different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

(4) Significant Accounting Policies (Continued)

The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

(iv) *Amortized cost*

The amortized cost of a financial asset or financial liability is the amount at which the financial asset or financial liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, and minus any reduction for impairment or uncollectibility.

(v) *Impairment of financial assets carried at cost*

The amount of the impairment loss on assets carried at cost is measured as the difference between the carrying amount of the financial asset and the present value of estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment losses cannot be reversed and are therefore recognized directly against the value of the asset and not as an allowance account.

(vi) *Impairment of financial assets carried at amortized cost*

In the case of financial assets carried at amortized cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. For variable income financial assets, the effective interest rate corresponding to the measurement date under the contractual conditions is used.

The Group recognizes impairment losses and unrecoverable loans and receivables and debt instruments by recognizing an allowance account for financial assets. When impairment and uncollectibility are considered irreversible, their carrying amount is eliminated against the allowance account.

The impairment loss is recognized in profit and loss and may be reversed in subsequent periods if the decrease can be objectively related to an event occurring after the impairment has been recognized. The loss can only be reversed to the limit of the amortized cost of the assets had the impairment loss not been recognized. The impairment loss is reversed against the allowance account.

(vii) *Available for sale financial assets*

Available for sale financial assets are those non-derivative financial assets that are designated as available for sale or are not classified as loans and receivables, held-to-maturity investments or financial assets at fair value through profit and loss.

A financial asset that the Group pretends to held to maturity or that it is a loan or receivable can also be designated as available for sale in the initial recognition. This category usually includes all

(4) Significant Accounting Policies (Continued)

debt securities traded on active markets that have not been designated as held-to-maturity, as well as equity investments that have not been classified as fair value through profit and loss.

A gain or loss on an available for sale financial asset shall be recognized in other comprehensive income, except for impairment losses and foreign exchange gains and losses, until the financial asset is derecognized.

When a decline in the fair value of an available for sale financial asset has been recognized in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that had been recognized in other comprehensive income shall be reclassified from equity to profit and loss as a reclassification adjustment even though the financial asset has not been derecognized.

(viii)*Financial liabilities*

Financial liabilities, including trade and other payables, which are not classified at fair value through profit and loss, are initially recognized at fair value less any transaction costs that are directly attributable to the issue of the financial liability. After initial recognition, liabilities classified under this category are measured at amortized cost using the effective interest method.

(ix) *Derecognition of financial assets*

The Group applies the criteria for derecognition of financial assets to part of a financial asset or part of a group of similar financial assets or to a financial asset or group of similar financial assets.

Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire or have been transferred and the Group has transferred substantially all the risks and rewards of ownership. Where the Group retains the contractual rights to receive cash flows, it only derecognizes financial assets when it has assumed a contractual obligation to pay the cash flows to one or more recipients and if the following requirements are met:

- Payment of the cash flows is conditional on their prior collection;
- The Group is unable to sell or pledge the financial asset, and
- The cash flows collected on behalf of the eventual recipients are remitted without material delay and the Group is not entitled to reinvest the cash flows. This criterion is not applicable to investments in cash or cash equivalents made by the Group during the settlement period from the collection date to the date of required remittance to the eventual recipients, provided that interest earned on such investments is passed on to the eventual recipients.

If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, it determines whether it has retained control of the financial asset. In this case:

- If the Group has not retained control, it derecognizes the financial asset and recognizes separately as assets or liabilities any rights and obligations created or retained in the transfer.

(4) Significant Accounting Policies (Continued)

- If the Group has retained control, it continues to recognise the financial asset to the extent of its continuing involvement in the financial asset and recognizes an associated liability. The extent of the Group's continuing involvement in the transferred asset is the extent to which it is exposed to changes in the value of the transferred asset. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained. The associated liability is measured in such a way that the carrying amount of the transferred asset and the associated liability is equal to the amortized cost of the rights and obligations retained by the Group, if the transferred asset is measured at amortized cost, or to the fair value of the rights and obligations retained by the Group, if the transferred asset is measured at fair value. The Group continues to recognise any income arising on the transferred asset to the extent of its continuing involvement and recognizes any expense incurred on the associated liability. Recognized changes in the fair value of the transferred asset and the associated liability are accounted for consistently with each other in profit and loss or equity, following the general recognition criteria described previously, and are not offset.

If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the consideration received is recognized in liabilities. Transaction costs are recognized in profit and loss using the effective interest method.

(x) *Derecognition and modifications of financial liabilities*

A financial liability, or part of it, is derecognized when the Group either discharges the liability by paying the creditor, or is legally released from primary responsibility for the liability either by process of law or by the creditor.

The exchange of debt instruments between the Group and the counterparty or substantial modifications of initially recognized liabilities are accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability, providing the instruments have substantially different terms.

The Group considers the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability.

If the exchange is accounted for as an extinguishment of the financial liability, any costs or fees incurred are recognized as part of the gain or loss on the extinguishment. If the exchange is not accounted for as an extinguishment, any costs or fees incurred adjust the carrying amount of the liability and are amortized over the remaining term of the modified liability.

The difference between the carrying amount of a financial liability, or part of a financial liability, extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit and loss.

(4) Significant Accounting Policies (Continued)

(l) Hedge accounting

Derivative financial instruments are initially recognized using the same criteria as those described for financial assets and financial liabilities. Derivative financial instruments that do not meet the hedge accounting requirements are classified and measured as financial assets and financial liabilities at fair value through profit and loss. Derivative financial instruments which qualify for hedge accounting are initially measured at fair value.

At the inception of the hedge the Group formally designates and documents the hedging relationships and the objective and strategy for undertaking the hedges. Hedge accounting is only applicable when the hedge is expected to be highly effective at the inception of the hedge and in subsequent years in achieving offsetting changes in fair value or cash flows attributable to the hedged risk, throughout the period for which the hedge was designated (prospective analysis) and the actual effectiveness, which can be reliably measured, is within a range of 80%-125% (retrospective analysis).

(i) *Cash flow hedges*

The Group recognizes the portion of the gain or loss on the measurement at fair value of a hedging instrument that is determined to be an effective hedge in other comprehensive income. The ineffective portion and the specific component of the gain or loss or cash flows on the hedging instrument, excluding the measurement of the hedge effectiveness, are recognized with a debit or credit to finance costs or finance income.

If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gains or losses that were recognized in other comprehensive income are reclassified from equity to profit and loss in the same period or periods during which the asset acquired or liability assumed affects profit and loss and under the same caption of the consolidated statement of profit and loss (consolidated statement of comprehensive income).

(m) Equity instruments

The Group's acquisition of equity instruments of the Parent is recognized separately at cost of acquisition in the consolidated balance sheet as a reduction in equity, regardless of the motive of the purchase. Any gains or losses on transactions with treasury equity instruments are not recognized in consolidated profit and loss.

The subsequent redemption of Parent shares, where applicable, leads to a reduction in share capital in an amount equivalent to the par value of such shares. Any positive or negative difference between the cost of acquisition and the par value of the shares is debited or credited to reserves. Transaction costs related with treasury equity instruments, including issue costs related to a business combination, are accounted for as a reduction in equity, net of any tax effect.

(n) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

(4) Significant Accounting Policies (Continued)

The costs of conversion of inventories include costs directly related to the units of production and a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. The allocation of fixed indirect overheads is based on the higher of normal production capacity or actual production.

The raw material used to produce haemoderivatives is human plasma, which is obtained from our donation centers using the plasmapheresis method. The cost of inventories includes the amount paid to plasma donors, or the amount billed by the seller when purchased from third parties, as well as the cost of products and devices used in the collection process, rental expenses and storage. This plasma has to be stored before use, which is an essential part of the production process. During the storage period, the plasma undergoes various virological tests and should be kept in quarantine in accordance with FDA and European Medicines Agency regulations, in order to guarantee that all the plasma is suitable for use in the production process.

To the extent that plasma storage costs are necessary to the production process, they are included as cost of inventories.

Indirect costs such as general management and administration costs are recognized as expenses in the period in which they are incurred.

The cost of raw materials and other supplies and the cost of merchandise are allocated to each inventory unit on a weighted average cost basis.

The transformation cost is allocated to each inventory unit on a FIFO (first-in, first-out) basis.

The Group uses the same cost model for all inventories of the same nature and with a similar use.

Volume discounts extended by suppliers are recognized as a reduction in the cost of inventories when it is probable that the conditions for discounts to be received will be met. Discounts for prompt payment are recognized as a reduction in the cost of the inventories acquired.

When the cost of inventories exceeds net realizable value, materials are written down to net realizable value, which is understood to be:

- For raw materials and other supplies, replacement cost. Nevertheless, raw materials and other supplies are not written down below cost if the finished goods into which they will be incorporated are expected to be sold at or above cost of production;
- Merchandise and finished goods, estimated selling price less costs to sell;
- Work in progress, the estimated selling price of related finished goods, less the estimated costs of completion and the estimated costs necessary to make the sale.

The previously recognized write-down is reversed against profit and loss when the circumstances that previously caused inventories to be written down no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances. The reversal of the write-down is limited to the lower of the cost and revised net realizable value of the inventories. Write-downs may be reversed with a credit to ‘‘Changes in inventories of finished goods and work in progress’’ and ‘‘Supplies’’.

(4) Significant Accounting Policies (Continued)

(o) Cash and cash equivalents

Cash and cash equivalents include cash on hand and demand deposits in financial institutions. They also include other short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. An investment normally qualifies as a cash equivalent when it has a maturity of less than three months from the date of acquisition.

The Group classifies cash flows relating to interest received and paid as operating activities, and dividends received and distributed are classified under investing and financing activities, respectively.

(p) Government grants

Government grants are recognized when there is reasonable assurance that they will be received and that the Group will comply with the conditions attached.

(i) *Capital grants*

Outright capital grants are initially recognized as deferred income in the consolidated balance sheet. Income from capital grants is recognized in the consolidated statement of profit and loss in line with the depreciation of the corresponding financed assets.

(ii) *Operating grants*

Operating grants received to offset expenses or losses already incurred, or to provide immediate financial support not related to future disbursements, are recognized in the consolidated statement of profit and loss.

(iii) *Interest rate grants*

Financial liabilities comprising implicit assistance in the form of below-market interest rates are initially recognized at fair value. The difference between this value, adjusted where necessary for the issue costs of the financial liability and the amount received, is recognized as a government grant based on the nature of the grant awarded.

(q) Employee benefits

(i) *Defined contribution plans*

The Group recognizes the contributions payable to a defined contribution plan in exchange for a service in the period in which contributions are accrued. Accrued contributions are recognized as an employee benefit expense in the corresponding consolidated statement of profit and loss in the year that the contribution was made.

(4) Significant Accounting Policies (Continued)

(ii) *Termination benefits*

Termination benefits are recognized at the earlier of the date when the Group can no longer withdraw the offer of those benefits and when the Group recognizes costs for a restructuring that involves the payment of termination benefits.

For termination benefits payable as a result of an employee's decision to accept an offer of benefits, the time when the Group can no longer withdraw the offer of termination benefits is the earlier of when the employee accepts the offer and when a restriction on the Group's ability to withdraw the offer takes effect.

For termination benefits payable as a result of the Group's decision to make an employee redundant, the Group can no longer withdraw the offer when it has informed the affected employees or union representatives of the plan and the actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made. The plan must identify the number of employees to be made redundant, their job classifications or functions and their locations and the expected completion date. The plan must also establish the termination benefits that employees will receive in sufficient detail that employees can determine the type and amount of benefits they will receive when their employment is terminated.

If the Group expects to settle the termination benefits in full more than twelve months after year end, the liability is discounted using the market yield on high quality corporate bonds.

(iii) *Short-term employee benefits*

The Group recognizes the expected cost of short-term employee benefits in the form of accumulating compensated absences when the employees render service that increases their entitlement to future compensated absences. In the case of non-accumulating compensated absences, the expense is recognized when the absences occur.

The Group recognizes the expected cost of profit-sharing and bonus plans when it has a present legal or constructive obligation to make such payments as a result of past events and a reliable estimate of the obligation can be made.

(iv) *Restricted Share Unit Retention Plan (RSU)*

The Group gives share-based payments to certain employees who render services to the Company. The fair value of the services received is determined based on the estimated fair value of the shares given at the grant date. Because the equity instruments granted do not vest until the employees complete a specified period of service, those services are accounted for during the vesting period in the income statement as an expense for the year, with the corresponding increase in equity. The amount recognized corresponds to that settled once the agreed terms have been met and it will not be adjusted or revalued during the accrual period, as the commitment is settled in the form of shares.

The total amount recognized is calculated based on the incentive payable in shares, increasing in line with percentages agreed by the Group. If an employee decides to leave his/her job prior to

(4) Significant Accounting Policies (Continued)

the end of the accrual period, he/she will only receive the agreed incentive in the form of shares and the Company will be able to choose whether to settle in cash or using equity instruments.

(r) Provisions

Provisions are recognized when the Group has a present obligation (legal or implicit) as a result of a past event; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period, taking into account all risks and uncertainties surrounding the amount to be recognized as a provision and, where the time value of money is material, the financial effect of discounting provided that the expenditure to be made each period can be reliably estimated. The discount rate is a pre-tax rate that reflects the time value of money and the specific risks for which future cash flows associated with the provision have not been adjusted at each reporting date.

If it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed against the consolidated statement of profit and loss item where the corresponding expense was recognized.

(s) Revenue recognition

Revenue from the sale of goods or services is measured at the fair value of the consideration received or receivable. Revenue is presented net of VAT and any other amounts or taxes which are effectively collected on the behalf of third parties. Volume or other types of discounts for prompt payment are recognized as a reduction in revenues if considered probable at the time of revenue recognition.

(i) *Sale of goods*

The Group recognizes revenue from the sale of goods when:

- It has transferred to the buyer the significant risks and rewards of ownership of the goods;
- It retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- The amount of revenue and the costs incurred or to be incurred can be measured reliably;
- It is probable that the economic benefits associated with the transaction will flow to the Group; and
- The costs incurred or to be incurred in respect of the transaction can be measured reliably.

The Group participates in the government-managed Medicaid programs in the United States, accounting for Medicaid rebates by recognizing an accrual at the time a sale is recorded for an amount equal to the estimated claims for Medicaid rebates attributable to the sale. Medicaid rebates are estimated based on historical experience, legal interpretations of the applicable laws relating to the Medicaid program and any new information regarding changes in the program

(4) Significant Accounting Policies (Continued)

regulations and guidelines that would affect rebate amounts. Outstanding Medicaid claims, Medicaid payments and inventory levels are analyzed for each distribution channel and the accrual is adjusted periodically to reflect actual experience. While rebate payments are generally made in the following or subsequent quarter, any adjustments for actual experience have not been material.

As is common practice in the sector, the purchase contracts signed by some customers with the Group entitle these customers to price discounts for a minimum purchase volume, volume discounts or prompt payment discounts. The Group recognizes these discounts as a reduction in sales and receivables in the same month that the corresponding sales are invoiced based on the customer's actual purchase figures or on past experience when the customer's actual purchases will not be known until a later date.

In the USA, the Group enters into agreements with certain customers to establish contract pricing for the products, which these entities purchase from the authorized wholesaler or distributor (collectively, wholesalers) of their choice. Consequently, when the products are purchased from wholesalers by these entities at the contract price which is less than the price charged by the Group to the wholesaler, the Group provides the wholesaler with a credit referred to as a chargeback. The Group records the chargeback accrual at the time of the sale. The allowance for chargebacks is based on Group's estimate of the wholesaler inventory levels, and the expected sell-through of the products by the wholesalers at the contract price based on historical chargeback experience and other factors. The Group periodically monitors the factors that influence the provision for chargebacks, and makes adjustments when it considers that actual chargebacks may differ from established allowances. These adjustments occur in a relatively short period of time. As these chargebacks are typically settled within 30 to 45 days of the sale, adjustments for actual experience have not been material.

(ii) *Services rendered*

Revenues associated with the rendering of service transactions are recognized by reference to the stage of completion at the consolidated balance sheet date when the outcome of the transaction can be estimated reliably. The outcome of a transaction can be estimated reliably when revenues, the stage of completion, the costs incurred and the costs to complete the transaction can be estimated reliably and it is probable that the economic benefits derived from the transaction will flow to the Group.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue is recognized only to the extent of costs incurred that are recoverable.

(iii) *Interest income*

Until June 2012 the Group has been recognizing interest receivable from the different Social Security affiliated bodies in Spain, to which it provides goods or services, on an accrual basis, and only for those bodies to which historically claims have been made and from which interest has been collected. As a result of the terms imposed by the Spanish Government in 2012 regarding

(4) Significant Accounting Policies (Continued)

the waiver of late payment interest on overdue receivables, the Group modified its estimate regarding late payment interest. Since June 2012 the Group has only been recognizing late payment interest on receivables from Social Security affiliated bodies on the date on which delayed invoices are collected, as it is highly likely that they will be collected as of that date provided that the Spanish Government has not imposed the waiver of late payment interest.

(t) Income taxes

The income tax expense or tax income for the year comprises current tax and deferred tax.

Current tax is the amount of income taxes payable or recoverable in respect of the consolidated taxable profit or consolidated tax loss for the year. Current tax assets or liabilities are measured at the amount expected to be paid to or recovered from the taxation authorities, using the tax rates and tax laws that have been enacted or substantially enacted at the reporting date.

Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences, whereas deferred tax assets are the amounts of income taxes recoverable in future periods in respect of deductible temporary differences, the carryforward of unused tax losses, and the carryforward of unused tax credits. Temporary differences are differences between the carrying amount of an asset or liability in the balance sheet and its tax base.

Current and deferred tax are recognized as income or an expense and included in profit and loss for the year, except to the extent that the tax arises from a transaction or event which is recognized, in the same or a different year, directly in equity, or from a business combination.

(i) *Taxable temporary differences*

Taxable temporary differences are recognized in all cases except where:

- They arise from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;
- They are associated with investments in subsidiaries over which the Group is able to control the timing of the reversal of the temporary difference and it is not probable that the temporary difference will reverse in the foreseeable future.

(ii) *Deductible temporary differences*

Deductible temporary differences are recognized provided that:

- It is probable that sufficient taxable income will be available against which the deductible temporary difference can be utilized, unless the differences arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable income;

(4) Significant Accounting Policies (Continued)

- The temporary differences are associated with investments in subsidiaries to the extent that the difference will reverse in the foreseeable future and sufficient taxable income is expected to be generated against which the temporary difference can be offset.

Tax planning opportunities are only considered when assessing the recoverability of deferred tax assets and if the Group intends to use these opportunities or it is probable that they will be utilized.

(iii) *Measurement*

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the years when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted. The tax consequences that would follow from the manner in which the Group expects to recover or settle the carrying amount of its assets or liabilities are also reflected in the measurement of deferred tax assets and liabilities.

At year end the Group reviews the fair value of deferred tax assets to write down the balance if it is not probable that sufficient taxable income will be available to apply the tax asset.

Deferred tax assets which do not meet the above conditions are not recognized in the consolidated balance sheet. At year end the Group assesses whether deferred tax assets which were previously not recognized now meet the conditions for recognition.

(iv) *Offset and classification*

The Group only offsets current tax assets and current tax liabilities if it has a legally enforceable right to set off the recognized amounts and intends either to settle on a net basis, or to realize the asset and settle the liability simultaneously.

The Group only offsets deferred tax assets and liabilities where it has a legally enforceable right, where these relate to income taxes levied by the same taxation authority and where the taxation authority permits the entity to settle on a net basis, or to realize the asset and settle the liability simultaneously for each of the future years in which significant amounts of deferred tax assets or liabilities are expected to be settled or recovered.

Deferred tax assets and liabilities are recognized in the consolidated balance sheet under non-current assets or liabilities, irrespective of the expected date of recovery or settlement.

(u) Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the Group's chief operating decision maker to make decisions about resources to be allocated to the segment, assess its performance and, based on which, differentiated financial information is available.

(4) Significant Accounting Policies (Continued)

(v) Classification of assets and liabilities as current and non-current

The Group classifies assets and liabilities in the consolidated balance sheet as current and non-current. Current assets and liabilities are determined as follows:

- Assets are classified as current when they are expected to be realized or are intended for sale or consumption in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are expected to be realized within twelve months after the reporting date or are cash or a cash equivalent, unless the assets may not be exchanged or used to settle a liability for at least twelve months after the reporting date.
- Liabilities are classified as current when they are expected to be settled in the Group's normal operating cycle, they are held primarily for the purpose of trading, they are due to be settled within twelve months after the reporting date or the Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date.
- Financial liabilities are classified as current when they are due to be settled within twelve months after the reporting date, even if the original term was for a period longer than twelve months, and an agreement to refinance, or to reschedule payments, on a long-term basis is completed after the reporting date and before the consolidated annual accounts are authorized for issue.

(w) Environmental issues

The Group takes measures to prevent, reduce or repair the damage caused to the environment by its activities.

Property, plant and equipment acquired by the Group for long-term use to minimize the environmental impact of its activity and protect and improve the environment, including the reduction and elimination of future pollution from the Group's operations, are recognized as assets applying the measurement, presentation and disclosure criteria described in note 4(g).

(5) Financial Risk Management Policy

(a) General

The Group is exposed to the following risks associated with the use of financial instruments:

- Credit risk
- Liquidity risk
- Market risk: includes interest rate risk, currency risk and other price risks.

This note provides information on the Group's exposure to each of these risks, the Group's objectives and procedures to measure and mitigate this risk, and the Group's capital management strategy. More exhaustive quantitative information is disclosed in note 30 to the consolidated annual accounts.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, define appropriate risk limits and controls and to control risks and comply with limits. Risk

(5) Financial Risk Management Policy (Continued)

management policies and procedures are reviewed regularly so that they reflect changes in market conditions and the Group's activities. The Group's management procedures and rules are designed to create a strict and constructive control environment in which all employees understand their duties and obligations.

The Group's Audit Committee supervises how management controls compliance with the Group's risk management procedures and policies and reviews whether the risk management policy is suitable considering the risks to which the Group is exposed. This committee is assisted by Internal Audit which acts as supervisor. Internal Audit performs regular and ad hoc reviews of the risk management controls and procedures and reports its findings to the Audit Committee.

Credit risk

Credit risk is the risk to which the Group is exposed in the event that a customer or counterparty to a financial instrument fails to discharge a contractual obligation, and mainly results from trade receivables and the Group's investments in financial assets.

Trade receivables

The Group does not predict any significant insolvency risks as a result of delays in receiving payment from some European countries due to their current economic situation. The main risk in these countries is that of late payments, which is mitigated through the possibility of claiming interest as foreseen by prevailing legislation. No significant bad debt or late payment issues have been detected for sales to private entities.

The Group recognizes impairment based on its best estimate of the losses incurred on trade and other receivables. The main impairment losses recognized are due to specific losses relating to individually identified risks. At year end, these impairment losses are immaterial.

Details of exposure to credit risk are disclosed in note 30.

Liquidity risk

Liquidity risk is the risk that the Group cannot meet its financial obligations as they fall due. The Group's approach to managing liquidity is to ensure where possible, that it always has sufficient liquidity to settle its obligations at the maturity date, both in normal conditions and in times of tension, to avoid incurring unacceptable losses or tarnishing the Group's reputation.

The Group manages liquidity risk on a prudent basis, based on availability of cash and sufficient committed unused long-term credit facilities, enabling the Group to implement its business plans and carry out operations using stable and secure sources of financing.

On 17 March 2014 the Group concluded its debt refinancing process. The total debt refinanced amounts to US Dollars 5,500 million (Euros 4,075 million) and represents the Group's entire debt, including the US Dollars 1,500 million bridge loan obtained for the acquisition of Novartis' transfusional diagnostic unit. Following the refinancing process, the Group's debt structure consists of a US Dollars

(5) Financial Risk Management Policy (Continued)

4,500 million non-current loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 1,000 million bond issuance (Senior Unsecured Notes).

On 28 October 2015 the Group received an additional loan from the European Investment Bank of up to Euros 100 million to mainly support investment in R&D. The financial conditions include a fixed interest rate for a period of ten years with a grace period of two years

At 31 December 2016 the Group has total cash and cash equivalents of Euros 895 million (1,143 million at 31 December 2015). The Group also has approximately Euros 484 million in unused credit facilities, including Euros 284 million on the revolving credit facility.

As in previous years, the Group continues with its quarterly program for optimization of working capital, which is mainly based on contracts to sell receivables without recourse in those countries with long collection periods.

Market risk

Market risk comprises the risk of changes in market prices, for example, exchange rates, interest rates, or the prices of equity instruments affecting the Group's revenues or the value of financial instruments it holds. The objective of managing market risk is to manage and control the Group's exposure to this risk within reasonable parameters at the same time as optimising returns.

(i) Currency risk

The Group operates internationally and is therefore exposed to currency risk when operating with foreign currencies, especially with regard to the US Dollar. Currency risk is associated with future commercial transactions, recognized assets and liabilities, and net investments in foreign operations.

The Group holds significant investments in foreign operations, the net assets of which are exposed to currency risk. The conversion risk affecting net assets of the Group's foreign operations in US Dollars is mitigated primarily through borrowings in this foreign currency.

The Group's main exposure to currency risk is with regard to the US Dollar, which is used in a significant percentage of transactions in foreign functional currencies.

Details of the Group's exposure to currency risk at 31 December 2016 and 2015 of the most significant financial instruments are shown in note 30.

(ii) Interest rate risk

The Group's interest rate risks arise from current and non-current borrowings. Borrowings at variable interest rates expose the Group to cash flow interest rate risks. Fixed-rate borrowings expose the Group to fair value interest rate risk.

The purpose of managing interest-rate risk is to balance the debt structure, maintaining part of borrowings at fixed rates and hedging part of variable rate debt.

(5) Financial Risk Management Policy (Continued)

With the objective of managing interest-rate risks in cash flows, the Group manages cash flow interest rate risks through variable to fixed interest rate swaps.

A significant part of the financing obtained accrues interest at fixed rates. This fixed interest debt (Senior Unsecured Notes) amounts to US Dollars 1,000 million, which represents approximately 21% of the Group's total debt in US Dollars. The additional loan of Euros 100 million received from the European Investment Bank represents approximately 20% of the Group's total debt in Euros.

For the remaining senior debt in US Dollars, which totals US Dollars 3,769 million, the Group partially contracted a variable to fixed interest rate swap. At 30 June 2016 this US Dollars hedging expired and, as a consequence this hedging is not in place at 31 December 2016. At 31 December 2015 the notional amount of the swap contracted by the Group hedged 18% of the senior variable interest rate debt denominated in US Dollars. This nominal part decreased over the term of the debt, based on the scheduled repayments of the principal. The purpose of these swaps was to convert borrowings at variable interest rates into fixed interest rate debt. Through these swaps the Group undertook to exchange the difference between fixed interest and variable interest with other parties periodically. The difference was calculated based on the contracted notional amount (see notes 15 (f) and 30).

Senior debt in Euros represents approximately 10% of the Group's total Senior debt at 31 December 2016 and 31 December 2015. The Group partially contracted a variable to fixed interest rate swap. At 31 March 2016 this Euros hedging expired and, as a consequence this hedging is not in place at 31 December 2016. The nominal part of this hedging instrument amounted to Euros 100 million, representing hedging of 25% of the senior variable interest rate debt denominated in Euros at 31 December 2015 (see notes 15 (f) and 30).

At 31 December 2016 there is no hedging in Euros or US Dollars. In previous years, the fair value of interest rate swaps contracted to reduce the impact of rises in variable interest rates (Libor and Euribor) was accounted for on a monthly basis. These derivative financial instruments comply with hedge accounting requirements.

Total fixed-interest debt represents a total of 21% of debt at 31 December 2016 (36% at 31 December 2015 considering total fixed-interest debt plus interest rate hedging).

(iii) Market price risk

Price risk affecting raw materials is mitigated by the vertical integration of the haemoderivatives business in a highly-concentrated sector.

(b) Capital management

The directors' policy is to maintain a solid capital base in order to ensure investor, creditor and market confidence and sustain future business development. The board of directors defines and proposes the level of dividends paid to shareholders.

(5) Financial Risk Management Policy (Continued)

The directors consider various arguments to calculate capital structure:

- The directors control capital performance using rates of returns on equity (ROE). In 2016, the ROE stood at 15% (16% in December 2015). The ROE is calculated by dividing profit attributable to the Parent by the equity attributable to the Parent.
- In accordance with the senior secured debt contract, the Group is subject to compliance with some covenants. At 31 December 2016 and 2015, the Group complies with the convenants.
- Consideration of the Company's credit rating (see note 20).

The Parent held Class A and B treasury stock equivalent to 0.2% of its capital at 31 December 2016 (0.17% at 31 December 2015). The Group does not have a formal plan for repurchasing shares.

(6) Segment Reporting

In accordance with IFRS 8 "Operating Segments", financial information for operating segments is reported in the accompanying Appendix II, which forms an integral part of this note to the consolidated annual accounts.

Group companies are divided into four areas: companies from the industrial area, companies from the commercial area, companies from the services area and companies from the research area. Within each of these areas, activities are organized based on the nature of the products and services manufactured and marketed.

Assets, liabilities, income and expenses for segments include directly and reliably attributable items. Items which are not attributed to segments by the Group are:

- Balance sheet: cash and cash equivalents, public entities, deferred tax assets and liabilities and loans and borrowings.
- Statement of profit and loss: finance result and income tax.

There have been no significant inter-segment sales.

(a) Operating segments

The operating segments defined by the steering committee are as follows:

- Bioscience: including all activities related with products derived from human plasma for therapeutic use.
- Hospital: comprising all non-biological pharmaceutical products and medical supplies manufactured by Group companies earmarked for hospital pharmacy. Products related with this business which the Group does not manufacture but markets as supplementary to its own products are also included.
- Diagnostic: including the marketing of diagnostic testing equipment, reagents and other equipment, manufactured by Group or other companies.

(6) Segment Reporting (Continued)

- Raw materials: including sales of intermediate biological products and the rendering of manufacturing services to third party companies.

Details of net sales by groups of products for 2016, 2015 and 2014 as a percentage of net sales are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Bioscience			
Haemoderivatives	3,228,269	3,032,110	2,512,705
Other haemoderivatives	6	1	805
Diagnostic			
Transfusional medicine	640,443	667,886	595,686
In vitro diagnosis	23,540	23,566	24,336
Hospital			
Fluid therapy and nutrition	46,210	45,621	53,771
Hospital supplies	52,373	50,624	41,029
Raw materials and others	58,989	114,755	127,052
Total	4,049,830	3,934,563	3,355,384

The Group has concluded that the haemoderivative products are sufficiently alike to be considered as a whole for the following reasons:

- All these products are human plasma derivatives and are manufactured in a similar way.
- The customers and methods used to distribute these products are similar.
- All these products are subject to the same regulations regarding production and the same regulatory environment.

(b) Geographical information

Geographical information is grouped into four areas:

- United States of America and Canada
- Spain
- Rest of the European Union
- Rest of the world

The definition of these four segments is mainly due to the geographical level that the Group sets to manage its revenue as they respond to specific economic scenarios. The main framework of the Group is consistent with this geographical segment grouping, including the monitoring of its commercial operations and its information systems.

(6) Segment Reporting (Continued)

For management purposes, the Group excludes the Raw Material and Others segment from the geographical details as it relates to operations which do not form part of the Group's core business. Sales and assets of the Raw Material and Others segment correspond mainly to the United States.

The financial information reported for geographical areas is based on sales to third parties in these markets as well as the location of assets.

(c) Main customer

Revenues from a Bioscience segment customer represent approximately 10.7% of the Group's total revenues (10.1% in 2015 and 10.9% in 2014).

(7) Goodwill

Details of and movement in this caption of the consolidated balance sheet at 31 December 2015 are as follows:

		Thousands of Euros				
	Segment	Balance at 31/12/2014	Business Combination	Impairment	Translation differences	Balance at 31/12/2015
Net value						
Grifols UK.Ltd. (UK)	Bioscience	8,822	—	—	540	9,362
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	—	—	6,118
Biomat USA, Inc. and Plasmacare, Inc. (USA)	Bioscience	167,602	—	—	19,305	186,907
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,713	—	—	248	9,961
Grifols Therapeutics, Inc. (USA)	Bioscience	1,830,315	—	—	210,822	2,041,137
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	—	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	—	—	40,516
Grifols Diagnostic (Novartis) (USA, Switzerland and Hong Kong)	Diagnostic	1,105,646	—	—	126,712	1,232,358
VCN Bioscience, S.L. (Spain)	Bioscience	—	2,590	(2,590)	—	—
		3,174,732	2,590	(2,590)	357,627	3,532,359
			(note 3(a))			

(7) Goodwill (Continued)

Details of and movement in this caption of the consolidated balance sheet at 31 December 2016 are as follows:

		Thousands of Euros		
	Segment	Balance at 31/12/2015	Translation differences	Balance at 31/12/2016
Net value				
Grifols UK.Ltd. (UK)	Bioscience	9,362	(1,337)	8,025
Grifols Italia.S.p.A. (Italy)	Bioscience	6,118	—	6,118
Biomat USA, Inc.(USA)	Bioscience	186,907	6,132	193,039
Grifols Australia Pty Ltd. (Australia) / Medion Diagnostics AG (Switzerland)	Diagnostic	9,961	173	10,134
Grifols Therapeutics, Inc. (USA)	Bioscience	2,041,137	67,002	2,108,139
Araclon Biotech, S.L. (Spain)	Diagnostic	6,000	—	6,000
Progenika Biopharma, S.A. (Spain)	Diagnostic	40,516	—	40,516
Grifols Diagnostic (Novartis) (USA, Switzerland and Hong Kong)	Diagnostic	1,232,358	39,666	1,272,024
		3,532,359	111,636	3,643,995

Impairment testing:

As a result of the acquisition of Talecris in 2011, and for impairment testing purposes, the Group combines the CGUs allocated to the Bioscience segment, grouping them together at segment level, because substantial synergies were expected to arise on the acquisition of Talecris, and due to the vertical integration of the business and the lack of an independent organized market for the products. Because the synergies benefit the Bioscience segment globally they cannot be allocated to individual CGUs. The Bioscience segment represents the lowest level to which goodwill is allocated and is subject to control by Group management for internal control purposes.

Due to the acquisition of Novartis' Diagnostic business unit in 2014, the Group has decided to group Araclon, Progenika and Australia into a single CGU for the Diagnostic business since the recent acquisition will support not only the vertically integration business but also cross-selling opportunities. In addition, for management purposes, the Group's management is focused on the business more than geographical areas or individual companies.

The CGUs established by Management are:

- Bioscience
- Diagnostic

The recoverable amount of the Bioscience CGU was calculated based on its value in use calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

(7) Goodwill (Continued)

The recoverable amount of the Diagnostic CGU was calculated based on its fair value less costs of disposal calculated as the present value of the future cash flows discounted at a discount rate considering the related inherent risk.

This value in use and fair value less costs of disposal calculations use cash flow projections for five years based on the financial budgets approved by management. Cash flows estimated as of the year in which stable growth in the CGU has been reached are extrapolated using the estimated growth rates indicated below.

The key assumptions used in calculating impairment of the CGUs for 2015 were as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	9.10%
Diagnostic	2%	10.80%

The key assumptions used in calculating impairment of the CGUs for 2016 have been as follows:

	Perpetual Growth rate	Pre-tax discount rate
Bioscience	2%	8.60%
Diagnostic	2%	10.30%

Management determined budgeted gross margins based on past experience, investments in progress which would imply significant growth in production capacity and its forecast international market development. Perpetual growth rates are coherent with the forecasts included in industry reports. The discount rate used reflects specific risks related to the CGU.

As the acquisition of Novartis diagnostic unit is a recent transaction and as the recoverable amount of the Bioscience CGU is much higher than the carrying amount of the Bioscience segment's net assets, specific information from the impairment test sensitivity analysis is not included.

At 31 December 2016 Grifols' stock market capitalization totals Euros 12,020 million (Euros 12,993 million at 31 December 2015).

(8) Other Intangible Assets

Details of other intangible assets and movement during the years ended 31 December 2016 and 2015 are included in Appendix III, which forms an integral part of these notes to the consolidated annual accounts.

Intangible assets acquired from Talecris mainly include currently marketed products. Identifiable intangible assets correspond to Gamunex and have been recognized at fair value at the acquisition date of Talecris and classified as currently marketed products. Intangible assets recognized comprise the rights on the Gamunex product, its commercialization and distribution license, trademark, as well as relations with hospitals. Each of these components are closely linked and fully complementary, are subject to similar risks and have a similar regulatory approval process.

(8) Other Intangible Assets (Continued)

Intangible assets acquired from Progenika mainly include currently marketed products. Identifiable intangible assets correspond to blood, immunology and cardiovascular genotyping. These assets have been recognized at fair value at the acquisition date of Progenika and classified as currently marketed products.

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2015 is as follows:

	Thousands of Euros			
	Balance at 31/12/2014	Additions	Translation differences	Balance at 31/12/2015
Cost of currently marketed products—Gamunex	988,386	—	113,846	1,102,232
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(118,057)	(35,697)	(14,643)	(168,397)
Accumulated amortisation of currently marketed products—Progenika	(4,359)	(2,379)	—	(6,738)
Carrying amount of currently marketed products	889,762	(38,076)	99,203	950,889

The cost and accumulated amortization of currently marketed products acquired from Talecris and Progenika at 31 December 2016 is as follows:

	Thousands of Euros			
	Balance at 31/12/2015	Additions	Translation differences	Balance at 31/12/2016
Cost of currently marketed products—Gamunex	1,102,232	—	36,180	1,138,412
Cost of currently marketed products—Progenika	23,792	—	—	23,792
Accumulated amortisation of currently marketed products—Gamunex	(168,397)	(36,062)	(7,412)	(211,871)
Accumulated amortisation of currently marketed products—Progenika	(6,738)	(2,379)	—	(9,117)
Carrying amount of currently marketed products	950,889	(38,441)	28,768	941,216

The estimated useful life of the currently marketed products acquired from Talecris is considered limited, has been estimated at 30 years on the basis of the expected life cycle of the product (Gamunex) and is amortized on a straight-line basis.

At 31 December 2016 the residual useful life of currently marketed products is 24 years and 5 months (25 years and 5 months at 31 December 2015).

The estimated useful life of the currently marketed products acquired from Progenika is considered limited, has been estimated at 10 years on the basis of the expected life cycle of the product and is amortized on a straight-line basis.

At 31 December 2016 the residual useful life of currently marketed products acquired from Progenika is 6 years and 2 months (7 years and 2 months at 31 December 2015).

(8) Other Intangible Assets (Continued)

(a) Self—constructed intangible assets

At 31 December 2016 the Group has recognized Euros 29,034 thousand as self-constructed intangible assets (Euros 10,497 thousand at 31 December 2015).

(b) Purchase commitments

At 31 December 2016 the Group has intangible asset purchase commitments amounting to Euros 639 thousand (Euros 709 thousand at 31 December 2015).

(c) Intangible assets with indefinite useful lives and other intangible in progress

At 31 December 2016 the Group has plasma center licenses with indefinite useful lives under intangible assets for a carrying amount of Euros 30,075 thousand (Euros 29,119 thousand at 31 December 2015).

The Group has also an amount of Euros 52,272 thousand as development costs in progress (Euros 24,499 thousand at 31 December 2015).

The Group has not recognized any amount corresponding to payments relating to license rights due to the Aradigm acquisition at 31 December 2016 (Euros 64,060 thousand at 31 December 2015).

(d) Result on disposal of intangible assets

Total profit incurred on disposals of intangible assets in 2016 amounts to Euros 7,198 thousand (losses of 265 thousand in 2015).

(e) Impairment testing

Indefinite-lived intangible assets have been allocated to the cash-generating unit (CGU) of the Bioscience segment. These assets have been tested for impairment together with goodwill (see note 7).

Impairment testing has been analyzed for each of the intangible assets in progress by calculating its recoverable amount based on their fair value.

(9) Property, Plant and Equipment

Details of property, plant and equipment and movement in the consolidated balance sheet at 31 December 2016 and 2015 are included in Appendix IV, which forms an integral part of this note to the consolidated annual accounts.

Property, plant and development under construction at 31 December 2016 and 2015 mainly comprise investments made to extend the companies' equipment and to increase their productive capacity.

Additions to property, plant and equipment in 2015 related mainly to the repurchase from related parties of industrial assets in the United States and Spain for a total amount of Euros 232 million (US Dollars 263 million) and Euros 45 million, respectively (see note 31). The Group exercised the options to purchase some of the assets at fair value included in the corresponding sale and leaseback agreements.

(9) Property, Plant and Equipment (Continued)

In 2015, the Group sold a building acquired in 2014 to a related party for an amount of Euros 12 million, which corresponds to its acquisition price (see note 31).

In 2016, the Group has capitalized interests for a total amount of Euros 13,019 thousand (Euros 9,795 thousand in 2015)

a) Insurance

Group policy is to contract sufficient insurance coverage for the risk of damage to property, plant and equipment. At 31 December 2016 the Group has a combined insurance policy for all Group companies, which more than adequately covers the carrying amount of all the Group's assets.

b) Losses on disposal of property, plant and equipment

Total losses incurred on disposals of property, plant and equipment for 2016 amount to Euros 4,021 million (Euros 6,529 million in 2015).

c) Assets under finance lease

The Group had contracted the following types of property, plant and equipment under finance leases at 31 December 2015:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,089	(1,102)	987
Plant and machinery	34,314	(15,971)	18,343
	36,403	(17,073)	19,330

The Group has contracted the following types of property, plant and equipment under finance leases at 31 December 2016:

	Thousands of Euros		
	Cost	Accumulated depreciation	Carrying amount
Land and buildings	2,213	(1,421)	792
Plant and machinery	13,336	(4,784)	8,552
	15,549	(6,205)	9,344

Details of minimum lease payments and the present value of finance lease liabilities, disclosed by maturity date, are detailed in note 20 (c).

(9) Property, Plant and Equipment (Continued)

d) Self—constructed property, plant and equipment

At 31 December 2016 the Group has recognized Euros 68,529 thousand as self -constructed property, plant and equipment (Euros 61,721 thousand at 31 December 2015).

e) Purchase commitments

At 31 December 2016 the Group has property, plant and equipment purchase commitments amounting to Euros 39,773 thousand (Euros 48,649 thousand at 31 December 2015).

f) Impairment

A group of assets forming part of the Hospital segment has been tested for impairment due to the decrease in the results of the segment and no impairment has been observed. The recoverable amount of the aforementioned assets is calculated based on the fair value less cost of disposal, using cash flow projections based on six-year financial budgets approved by management. Cash flows estimated as of the year in which stable growth has been reached by the assets are extrapolated using a pre-tax discount rate of 10.3% and a perpetual growth rate of 2% (10.1% and 2% respectively in fiscal year 2015).

(10) Equity Accounted Investees

Details of this caption in the consolidated balance sheet at 31 December 2016 and 2015 are as follows:

	% ownership	Thousands of Euros 31/12/2016	% ownership	Thousands of Euros 31/12/2015
Aradigm Corporation	35.13%	9,291	35.00%	19,799
TiGenix N.V.	—	—	19.28%	7,199
Kiro Grifols, S.L	50.00%	13,888	50.00%	15,608
Alkahest, Inc.	47.58%	35,955	47.58%	34,122
Albajuna Therapeutics, S.L	30.00%	3,177	—	—
Interstate Blood Bank, Inc.	49.19%	31,090	—	—
Bio Blood Components Inc.	48.97%	38,725	—	—
Plasma Biological Services, LL	48.90%	25,890	—	—
Singulex, Inc.	20.00%	43,329	—	—
		201,345		76,728

The Group has determined that it has significant influence or joint control over these investments except for TiGenix, N.V.

(10) Equity Accounted Investees (Continued)

Movement in the investments in equity-accounted investees for the years ended at 31 December 2016, 2015 and 2014 have been as follows:

	Thousands of Euros		
	2016	2015	2014
Balance at 1 January	76,728	54,296	35,765
Acquisitions	136,072	33,039	24,325
Transfers	(29,059)	—	(499)
Share of profit / (losses)	6,933	(8,280)	(6,582)
Share of other comprehensive income / translation differences	10,671	2,673	1,287
Collected dividends	—	(5,000)	—
Balance at 31 December	201,345	76,728	54,296

Singulex, Inc.

On 17 May 2016 Grifols subscribed and paid a capital increase for an amount of US Dollars 50 million (Euros 44,107 thousand) in the US company Singulex, Inc. ("Singulex"). As a result, Grifols holds a 20% common stock interest in Singulex on a fully diluted basis at a pre-money valuation of US Dollars 200 million. Grifols will be entitled to appoint a director to serve the board of directors of Singulex. As a result, Singulex granted Grifols an exclusive worldwide license for the use and sale of Singulex' technology for the blood donor and plasma screening to further ensure the safety of blood and plasma products. At the date of publication of these consolidated annual accounts, the Group did not have all the necessary information to determine the fair value of the assets, liabilities and contingent liabilities acquires.

The summarized financial information of Singulex, Inc. corresponding to the last available financial statements is included below with the carrying amount of the Group's interest. The information related to the statement of profit and loss is included only from the acquisition date.

	Thousand of Euros
Non-current assets	6,730
Current assets	14,774
Non-current liabilities	(14,095)
Current liabilities	(10,553)
Total net assets (100%)	(3,144)
Group's share of net assets (20%)	(629)
Net revenue	20,667
Profit from continuing operations (100%)	(19,452)
Group's share of total comprehensive income (20%)	(3,890)

(10) Equity Accounted Investees (Continued)

A reconciliation of the summarized financial information with the carrying amount of the Group's interest is as follows:

	Thousand of Euros
Group's share of net assets	(629)
Goodwill of equity method investment	33,809
Intangible assets	16,239
Deferred tax liabilities	(6,090)
Equity method accounted investment	43,329

Movement in Singulex, Inc.'s equity-accounted investment for the year ended 31 December 2016 is as follows:

	Thousand of Euros
	2016
Balance at 1 January	—
Acquisitions	44,107
Share of profit / (losses)	(3,890)
Share of other comprehensive income / translation differences	3,112
Balance at 31 December	43,329

Interstate Blood Bank, Inc., Bio-Blood Components, Inc. and Plasma Biological Services, Llc.

On 11 May 2016 Grifols acquired a 49.19% stake in Interstate Blood Bank, Inc. (IBBI), 48.97% of Bio-Blood Components, Inc. (Bio-Blood) and 48.90% of Plasma Biological Services, LLC. (PBS) (''IBBI Group''), a group based in Memphis, Tennessee, USA, for the price of US Dollars 100 million (Euros 88,215 thousand). GWWO also entered into an option agreement to purchase the remaining stakes for a price of US Dollars 100 million for an option price of US Dollars 10 million (Euros 9,007 thousand) (see notes 11 and 30). The purchase price and the call right were paid upon signature of the contract. The principal business activity of IBBI and its affiliates is the collection of plasma for the plasma fractionation industry, with 23 plasma collection centers, 9 blood donation centers and one laboratory. At the date of publication of these consolidated annual accounts, the Group did not have all the necessary information to determine the fair value of the assets, liabilities and contingent liabilities acquires.

The summarized financial information of Interstate Blood Bank, Inc., Bio-blood Components, Inc. and Plasma Biological Services, LLC. corresponding to the last available financial statements is included

(10) Equity Accounted Investees (Continued)

below with the carrying amount of the Group's interest. The information related to the statement of profit and loss is included only from the acquisition date.

	Thousands of Euros		
	IBBI	Bio-Blood	PBS
Non-current assets	10,870	5,523	6,640
Current assets	26,167	7,665	3,759
Non-current liabilities	(4,176)	—	(3,228)
Current liabilities	(8,817)	(5,964)	(14,203)
Total net assets (100%)	24,044	7,224	(7,032)
Group's share of net assets	11,827	3,538	(3,439)
Net revenue	31,106	37,999	16,160
Profit from continuing operations (100%)	1,413	(339)	532
Group's share of total comprehensive income	695	(166)	260

A reconciliation of the summarized financial information with the carrying amount of the Group's interest is as follows:

	Thousands of Euros		
	IBBI	Bio-Blood	PBS
Group's share of net assets	11,827	3,538	(3,439)
Goodwill of equity method investment	19,263	35,187	29,329
Equity method accounted investment	31,090	38,725	25,890

Movement in Interstate Blood Bank, Inc., Bio-blood Components, Inc. and Plasma Biological Services, LLC.'s equity-accounted investment for the year ended 31 December 2016 is as follows:

	Thousands of Euros		
	IBBI	Bio-Blood	PBS
	2016	2016	2016
Balance at 1 January	—	—	—
Acquisitions	28,229	36,168	23,818
Share of profit / (losses)	695	(166)	260
Share of other comprehensive income / translation differences	2,166	2,723	1,812
Balance at 31 December	31,090	38,725	25,890

(10) Equity Accounted Investees (Continued)

Albajuna Therapeutics, S.L

In January 2016, Grifols acquired 30% of the equity of AlbaJuna Therapeutics, S.L. for Euros 3.75 million in the form of a cash payment to finance the development and production of therapeutic antibodies against HIV. The initial investment will be increased upon achievements of agreed development milestones through two payments for a total amount of Euros 7.25 million.

AlbaJuna Therapeutics is a spin-off from the AIDS Investigation Institute IrsiCaixa, jointly driven by Obra Social "la Caixa" and the Generalitat de Catalunya's Department of Health. It was founded to promote the preclinical and clinical development of monoclonal antibodies that both neutralize the HIV action in the human body and increase the activity of natural killer cells, which are responsible for the destruction of infected cells.

Alkahest, Inc.

On 4 March 2015, the Group acquired 47.58% of the equity of Alkahest, Inc. ("Alkahest") for Euros 33 million (US Dollars 37.5 million) in the form of a cash payment in exchange for 47.58% of Alkahest's shares following the closing of the transaction. In addition Grifols will provide a further payment of US Dollars 12.5 million as part of the collaboration agreement and fund the development of plasma-based products, which may be commercialized by the Group throughout the world. Alkahest will receive milestone payments and royalties on sales of such products by Grifols.

Kiro Grifols, S.L.

On 19 September 2014 the Group subscribed a capital increase in Kiro Grifols, S.L *(formerly Kiro Robotics*, S.L.) for an amount of Euros 21 million, which represents 50% of the voting and economic rights of Kiro Grifols. The capital increase was paid by means of a monetary contribution.

Grifols also entered into *a joint venture & shareholders' agreement* (the "Joint Venture Agreement") with Kiro Grifols' partners: Mondragon Innovacion S.P.E, S.A.; Mondragon Assembly, S.Coop. and Agrupación de Fundición y Utillaje, S.Coop.. This agreement governs, among other matters, the capital increase subscribed by Grifols and the managing and governing bodies of Kiro Grifols, whether these are the Board of Directors or any other internal managing and governing bodies.

The acquisition of Kiro Grifols gives rise to a joint control business which is accounted for as an "Investment in equity-accounted investee", as none of the shareholders control the decisions regarding relevant activities or the governing bodies of the company.

During 2015, the Group collected an amount of Euros 5 million related to comprising dividends from Kiro Grifols.

TiGenix N.V.

In 2016 the Group's directors concluded that the significant influence over its TiGenix investment had ceased. The facts that lead to this conclusion are the resignation of its preferred rights to distribute the main drug under investigation by TiGenix and the fact that Grifols Group has no longer appointed board members and does not expect to appoint any more. Additionally it has been considered that the time

(10) Equity Accounted Investees (Continued)

needed for exercising its right of appointment of one board director is too long as to allow Grifols to participate in board decisions in due time. As a consequence the investment in TiGenix has been reclassified to Available for Sale Financial Assets. The effect of this reclassification resulted in a revaluation of the investment at fair value, determined based on the stock price of TiGenix as of 30 June 2016, and the related gain amounting to Euros 24 million has been accounted for under Share of income/losses of equity accounted investees in the consolidated statement of profit and loss.

(11) Financial Assets

Details of non-current financial assets on the consolidated balance sheet at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Non-current loans (a)	40,201	25,000
Non-current derivatives (note 30)	13,665	—
Non-current investment in quoted shares (note 10)	29,998	507
Non-current guarantee deposits	4,603	3,979
Other non-current financial assets	1,078	902
Total non-current financial assets	89,545	30,388

(a) Non-current loans

On 22 April 2016, the Group's subsidiary, Grifols Worldwide Operations Limited, subscribed convertible bonds for an amount of US Dollars 19,950 thousand (Euros 17,997 thousand) issued by Aradigm that bear at an interest rate of 9% and mature in 2021 (see notes 30 and 31). The Group indirectly owns 35.13% of the common stock of Aradigm. Interest on the convertible bonds is payable on 1 May and 1 November of each year. At the date of these consolidated annual accounts Aradigm has paid the Group an amount of Euros 839 thousand on the convertible bonds. Upon the events described in the indenture governing the convertible bonds, the convertible bonds are convertible into common stock of Aradigm. At the date of these consolidated annual accounts, the conversion rate is 191.94 shares of Aradigm common stock per US Dollar 1,000 principal amount of convertible bonds.

The conversion feature to convert the liability into equity of the issuer at a price that can be adjusted results in an embedded derivative measured at fair value (see note 30). All changes in fair value are recognized in the statement of profit and loss.

Aradigm intends to use the net proceeds from the offering to fund the current clinical development and regulatory submission for licensure of Pulmaquin and for general corporate purposes.

On 6 March 2015, the Group's subsidiary, Grifols Worldwide Operations Limited, subscribed Euros 25 million aggregate principal amount of 9% on convertible bonds due in 2018 issued by TiGenix. The Group indirectly owns 16.13% of the common stock of TiGenix. Interest on the convertible bonds is payable on 6 September and 6 March of each year, and at the date of these consolidated annual accounts,

(11) Financial Assets (Continued)

TiGenix had paid the Group an amount of Euros 2,250 thousand of interest on the convertible bonds (Euros 1,125 thousand during year 2015).

Upon the events described in the indenture governing the convertible bonds, the convertible bonds are convertible into common stock of TiGenix. At the date of these consolidated annual accounts, the conversion rate was 111,321.38 shares of TiGenix common stock per Euros 100,000 principal amount of convertible bonds.

In 2016 the Group directors concluded that the significant influence over the TiGenix investment has ceased (see note 10).

Details of other current financial assets on the consolidated balance sheet at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Deposits and guarantees	957	509
Current loans to third parties	832	30
Current loans to associates (see note 31)	793	755
Total other current financial assets	2,582	1,294

(12) Inventories

Details of inventories at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Goods for resale	176,439	180,516
Raw materials and supplies	428,728	366,627
Work in progress and semi-finished goods	584,316	610,592
Finished goods	486,517	296,270
	1,676,000	1,454,005
Less, inventory provision	(33,069)	(22,614)
	1,642,931	1,431,391

(12) Inventories (Continued)

Movement in the inventory provision was as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Balance at 1 January	22,614	15,888	31,919
Net charge for the year	8,878	6,099	(15,016)
Business combinations	—	—	2,201
Cancellations for the year	(20)	(195)	(4,421)
Translation differences	1,597	822	1,205
Balance at 31 December	33,069	22,614	15,888

(13) Trade and Other Receivables

Details at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Trade receivables	431,510	375,546
Receivables from associates (note 31)	133	70
Bad debt provision (note 30)	(17,987)	(13,210)
Trade receivables	**413,656**	**362,406**
Other receivables	13,705	25,880
Personnel	280	379
Advances for fixed assets	151	—
Other advances	6,624	6,178
Taxation authorities, VAT recoverable	17,768	25,112
Other public entities	3,771	2,971
Other receivables	**42,299**	**60,520**
Current income tax assets	**77,713**	**60,270**
	533,668	**483,196**

Other receivables

During 2016, 2015 and 2014 certain companies of the Grifols Group have sold receivables from several public entities, without recourse, to certain financial institutions. Under some of these contracts, the Group receives an initial payment which usually amounts to 90% of the nominal amount of the receivables sold less the associated sale and purchase costs. The deferred collection (equivalent to the rest of the nominal amount) will be made by the Group once the financial institution has collected the nominal amount of the receivables (or the interest, if the balances are received after more than 36 months, depending on the terms of each particular contract) and this amount is recognized in the consolidated balance sheet as a balance receivable from the financial institution. The deferred amount (equivalent to

(13) Trade and Other Receivables (Continued)

the continuing involvement) totals Euros 2,560 thousand at 31 December 2016 (Euros 4,520 thousand at 31 December 2015), which does not differ significantly from its fair value and coincides with the amount of maximum exposure to losses. The financial institution makes the initial payment when the sale is completed and therefore, the bad debt risk associated with this part of the nominal amount of the receivables is transferred. The Group has transferred the credit risk and control of the receivables to certain financial institutions and has therefore derecognized the asset transferred in the consolidated balance sheet, as the risks and rewards inherent to ownership have not been substantially retained.

Certain foreign Group companies have also entered into a contract to sell receivables without recourse to various financial institutions.

Total balances receivable without recourse sold to financial institutions through the aforementioned contracts in 2016 amount to Euros 870 million (Euros 787 million in 2015).

The finance cost of these operations for the Group totals approximately Euros 4,885 thousand which has been recognized under finance result in the consolidated statement of profit and loss for 2016 (Euros 6,512 thousand in 2015 and Euros 6,271 thousand in 2014) (see note 26).

Details of balances with related parties are shown in note 31.

(14) Cash and Cash Equivalents

Details of this caption of the consolidated balance sheet at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Current deposits	470,298	404,301
Cash in hand and at banks	424,711	738,199
Total cash and cash equivalents	895,009	1,142,500

(15) Equity

Details of consolidated equity and movement are shown in the consolidated statement of changes in equity.

(a) Share capital

At 31 December 2016, the Company's share capital amounts to Euros 119,603,705 and comprises:

- Class A shares: 426,129,798 ordinary shares of Euros 0.25 par value each, subscribed and fully paid and of the same class and series.
- Class B shares: 261,425,110 non-voting preference shares of 0.05 Euros par value each, of the same class and series, and with the preferential rights set forth in the Company's by-laws.

(15) Equity (Continued)

On 4 January 2016 the Company's new shares resulting from the share split ruling on 3 December 2015 by the Company's board of directors started to be traded in accordance with the delegation of authorities by the shareholders at the general shareholders' meeting held on 29 May 2015.

The main characteristics of the Class B shares are as follows:

- Each Class B share entitles its holder to receive a minimum annual preferred dividend out of the distributable profits at the end of each year equal to Euros 0.01 per Class B share provided that the aggregate preferred dividend does not exceed the distributable profits of that year and a distribution of dividends has been approved by the Company's shareholders. This preferred dividend is not cumulative if sufficient distributable profits are not obtained in the period.
- Each Class B share is entitled to receive, in addition to the above-mentioned preferred dividend, the same dividends and other distributions as for one Grifols ordinary share.
- Each Class B share entitles the holder to its redemption under certain circumstances, if a takeover bid for all or part of the shares in the Company has been made, except if holders of Class B shares have been entitled to participate in the bid on the same terms as holders of Class A shares. The redemption terms and conditions reflected in the Company's by-laws limit the amount that may be redeemed, requiring that sufficient distributable reserves be available, and limit the percentage of shares to be redeemed in line with the ordinary shares to which the bid is addressed.
- In the event the Company were to be wound up and liquidated, each Class B share entitles the holder to receive, before any amounts are paid to holders of ordinary shares, an amount equal to the sum of (i) the par value of the Class B share, and (ii) the share premium paid for the Class B share when it was subscribed. In addition to the Class B liquidation preference amount, each holder is entitled to receive the same liquidation amount that is paid for each ordinary share.

These shares are freely transferable.

Since 23 July 2012 the ADSs (American Depositary Shares) representing Grifols' Class B shares (non-voting shares) have had an exchange ratio of 1:1 in relation to Class B shares, ie.1 ADS represents 1 Class B share. The previous rate was 2 ADS per 1 Class B share.

The Company's knowledge of its shareholders is based on information provided voluntarily or in compliance with applicable legislation. According to the information available to the Company, there are no interests representing more than 10% of the Company's total capital at 31 December 2016 and 2015.

At 31 December 2016 and 2015, the number of outstanding shares is equal to the total number of Company shares, less treasury stock.

(15) Equity (Continued)

Movement in outstanding shares during 2015 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2015	211,097,634	130,706,902
(Acquisition) / disposal of treasury stock (note 15 (d))	1,967,265	(2,013,632)
Balance at 31 December 2015	213,064,899	128,693,270

Movement in outstanding shares during 2016 is as follows:

	Class A shares	Class B shares
Balance at 1 January 2016	426,129,798	257,386,540
(Acquisition) / disposal of treasury stock (note 15 (d))	—	(692,165)
Balance at 31 December 2016	426,129,798	256,694,375

Balance at 1 January 2016 includes the share Split.

(b) Share premium

Movement in the share premium is described in the consolidated statement of changes in equity, which forms an integral part of this note to the consolidated annual accounts.

(c) Reserves

The drawdown of accumulated gains is subject to legislation applicable to each of the Group companies. At 31 December 2016, Euros 50,680 thousand equivalent to the carrying amount of development costs pending amortization of certain Spanish companies (Euros 42,762 thousand at 31 December 2015) (see note 8) are, in accordance with applicable legislation, restricted reserves which cannot be distributed until these development costs have been amortized.

In May 2014 Araclon Biotech, S.L. increased capital by an amount of Euros 5 million. As a result, the Group increased its investment from 61.12% to 66.15%. The difference between the share capital increase carried out by the Group and the non-controlling interest was recognized as a Euros 1.7 million decrease in reserves.

In June 2015 Araclon Biotech, S.L. increased capital by an amount of Euros 6 million. As a result, the Group has increased its investment from 66.15% to 70.83%. The difference between the share capital increase carried out by the Group and the non-controlling interest has been recognized as a Euros 1.77 million decrease in reserves.

In July 2016 the Group acquired an additional 20% of the assets of Medion Diagnostics AG in exchange for 59,951 treasury stocks (Class B Shares) from its non-controlling interests. After these capital increases, Grifols' interest has risen to 100% in 2016. The difference between the share capital increase

(15) Equity (Continued)

carried out by the Group and the non-controlling interest has been recognized as a Euros 0.6 million decrease in reserves.

In August 2016 Araclon Biotech, S.L. increased capital by an amount of Euros 6.7 million. As a result, the Group has increased its investment from 70.83% to 73.22%. The difference between the share capital increase carried out by the Group and the non-controlling interest has been recognized as a Euros 1.7 million decrease in reserves.

On 12 December 2016, the Group subscribed a share capital increase in the capital of VCN Bioscience, S.L. of Euros 5 million. After this capital increase, Grifols interest has risen to 81.34% in 2016. The difference between the share capital increase carried out by the Group and the non-controlling interest has been recognized as a Euros 1 million decrease in reserves.

In May 2015 the company sold 1,967,265 treasury stocks (Class A Shares), generating a profit of Euros 2 million, recognized in reserves.

At 31 December 2016 and 2015 reserves include the IFRS-EU first-time adoption revaluation reserves and legal reserve of certain Group companies.

Legal reserve

Companies in Spain are obliged to transfer 10% of each year's profits to a legal reserve until this reserve reaches an amount equal to 20% of share capital. This reserve is not distributable to shareholders and may only be used to offset losses if no other reserves are available. Under certain conditions it may be used to increase share capital provided that the balance left on the reserve is at least equal to 10% of the nominal value of the total share capital after the increase.

At 31 December 2016 and 2015 the legal reserve of the Company amounts to Euros 23,921 thousand.

Distribution of the legal reserves of Spanish companies is subject to the same restrictions as those of the Company and at 31 December 2016 the balance of the legal reserve of other Spanish companies amounts to Euros 1,485 thousand (Euros 1,521 thousand at 31 December 2015).

Other foreign Group companies have a legal reserve amounting to Euros 650 thousand at 31 December 2016 (Euros 578 thousand at 31 December 2015).

(d) Treasury stock

At 31 December 2016 and 31 December 2015 the Company does not have any Class A treasury stock.

(15) Equity (Continued)

Movement in Class A treasury stock during 2015 is as follows:

	No. of Class A shares	Thousands of Euros
Balance at 1 January 2015	1,967,265	69,134
Disposal of Class A shares	(1,967,265)	(69,134)
Balance at 31 December 2015	—	—

Movement in Class B treasury stock during 2015 is as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2015	5,653	118
Acquisition of Class B shares	2,014,285	58,457
Disposal of Class B shares	(653)	—
Balance at 31 December 2015	2,019,285	58,575

Movement in Class B treasury stock during 2016 is as follows:

	No. of Class B shares	Thousands of Euros
Balance at 1 January 2016	4,038,570	58,575
Acquisition of Class B shares	1,628,893	23,720
Non Cash Disposal Class B shares	(936,728)	(13,585)
Balance at 31 December 2016	4,730,735	68,710

In July 2016 the Company delivered 59,951 treasury stocks (Class B Shares) to Medion´s non-controlling interests in exchange for the 20% acquired from them.

In March 2016 the Company delivered 876,777 treasury stocks (Class B Shares) to Progenika´s non-controlling interests in exchange for the 16.465% acquired from them (see note 3).

Class B share acquisitions include the purchase of the Class B shares from the vendor shareholders of Progenika for which Grifols exercised the cash option for an amount of Euros 11,035 thousand. This amount has been considered as cash used in investing activities in the statement of cash flows

The Parent held Class B treasury stock equivalent to 0.20% of its capital at 31 December 2016 (0.17% at 31 December 2015).

(15) Equity (Continued)

(e) Distribution of profit

The profits of Grifols, S.A. and subsidiaries will be distributed as agreed by respective shareholders at their general meetings.

The proposed distribution of profit of the Parent Grifols, S.A. for the years ended 31 December 2016 and the distribution approved for 2015 is as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Legal Reserve	—	—
Voluntary reserve	103,611	28,898
Dividends	218,182	212,858
Profit of the Parent	321,793	241,756

The following dividends were paid in 2015:

	31/12/2015		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	59%	0.30	62,873
Non-voting shares	295%	0.30	37,977
Non-voting shares (preferred dividend)	10%	0.10	1,307
Total dividends paid			102,157

	31/12/2015		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	70%	0.35	74,573
Non-voting shares (interim dividend)	350%	0.35	45,042
Total interim dividends paid			119,615

The following dividends were paid in 2016:

	31/12/2016		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares	53%	0.13	56,493
Non-voting shares	265%	0.13	34,136
Non-voting shares (preferred dividend)	20%	0.01	2,614
Total dividends paid			93,243

(15) Equity (Continued)

	31/12/2016		
	% of par value	Euros per share	Thousands of Euros
Ordinary shares (interim dividend)	72%	0.18	76,703
Non-voting shares (interim dividend)	360%	0.18	46,205
Total interim dividends paid			122,908

At the meeting held on 28 October 2016, the Board of Directors of Grifols approved the distribution of interim dividend for 2016 of Euros 0.18 for each Class A and B share, recognizing a total of Euros 122,908 thousand as interim dividend.

At the meeting held on 23 October 2015, the Board of Directors of Grifols approved the distribution of interim dividend for 2015 of Euros 0.35 for each Class A and B share, recognizing a total of Euros 119.615 thousand as interim dividend.

These amounts to be distributed did not exceed the profits generated by the Company since the end of the last reporting period, less the estimated income tax payable on these profits, in accordance with article 277 of the Revised Spanish Companies Act.

The Statement of Liquidity for Distribution of Interim Dividend of Grifols, S.A. prepared in accordance with legal requirements and which shows the existence of sufficient liquidity to be able to distribute the aforementioned interim dividend is provided in Appendix V.

At a general meeting held on 27 May 2016 the shareholders approved the distribution of a preferred dividend of Euros 0.01 for every Class B non-voting share.

The distribution of the profit for the years ended 31 December 2015 and 2016 is presented in the consolidated statement of changes in equity.

(f) Cash flow hedges

In June and October 2011 Grifols contracted variable to fixed interest-rate swaps for initial nominal amounts of US Dollars 1,550 million and Euros 100 million, respectively, to hedge interest-rate risk on its senior debt. The Group recognized these financial derivatives as cash flow hedges. At 31 December 2016 the Group does not have any financial derivatives as cash flow hedges (see notes 5 (a) and 30).

Ineffective cash flow hedges recognized as finance income and cost in the consolidated statement of profit and loss (consolidated statement of comprehensive income) for 2015 amount to Euros 88 thousand. During 2016 the Group has not recognized any ineffective cash flow hedges.

(g) Restricted Share Unit Compensation

For the 2014 and 2015 bonus, the Group has set up a Restricted Share Unit Retention Plan (hereinafter RSU Plan) for certain employees (see note 29). This commitment will be settled using equity instruments and the cumulative accrual amounts to Euros 7,946 thousand, net of tax (Euros 3,399 thousand in 2015).

(16) Earnings Per Share

The calculation of basic earnings per share is based on the profit for the year attributable to the shareholders of the Parent divided by the weighted average number of ordinary shares in circulation throughout the year, excluding treasury stock.

Details of the calculation of basic earnings per share are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	545,456	532,145	470,253
Weighted average number of ordinary shares outstanding	683,225,815	683,549,316	685,344,936
Basic earnings per share (Euros per share)	0.80	0.78	0.69

The weighted average of the ordinary shares outstanding (basic) has been calculated taking into consideration the share split carried out on 4 January 2016 as follows:

	Number of shares		
	31/12/2016	31/12/2015	31/12/2014
Issued shares outstanding at 1 January	683,516,338	683,610,378	687,554,908
Effect of shares issued	—	—	—
Effect of treasury stock	(290,523)	(61,062)	(2,209,972)
Average weighted number of ordinary shares outstanding (basic) at 31 December	683,225,815	683,549,316	685,344,936

Diluted earnings per share are calculated by dividing profit for the year attributable to shareholders of the Parent by the weighted average number of ordinary shares in circulation considering the diluting effects of potential ordinary shares. At 31 December 2014 basic and diluted earnings per share are the same, as no potential diluting effects exist.

The RSU Plan granted in March 2016 and 2015 payable in shares, assumes the existence of dilutive potential shares. Diluted earnings per share have been calculated as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Profit for the year attributable to shareholders of the Parent (thousands of Euros)	545,456	532,145	470,253
Weighted average number of ordinary shares outstanding (diluted)	684,170,887	683,924,426	685,344,936
Diluted earnings per share (Euros per share)	0.80	0.78	0.69

(16) Earnings Per Share (Continued)

The weighted average number of ordinary shares outstanding (diluted) has been calculated as follows:

	Number of shares		
	31/12/2016	31/12/2015	31/12/2014
Issued shares outstanding at 1 January	683,988,460	683,610,378	687,554,908
Effect of RSU shares	472,950	375,110	—
Effect of shares issued	—	—	—
Effect of treasury stock	(290,523)	(61,062)	(2,209,972)
Average weighted number of ordinary shares outstanding (diluted) at 31 December	684,170,887	683,924,426	685,344,936

(17) Non-Controlling Interests

Details of non-controlling interests and movement at 31 December 2015 are as follows:

	Thousands of Euros					
	Balance at 31/12/2014	Additions	Business combinations/ Additions to consolidated Group	Capital increases	Translation differences	Balance at 31/12/2015
Grifols (Thailand) Pte Ltd	1,956	763	—	—	(55)	2,664
Grifols Malaysia Sdn Bhd	911	234	—	—	(105)	1,040
Araclon Biotech, S.A.	96	(1,679)	—	1,766	—	183
Medion Grifols Diagnostic AG	(521)	169	—	—	(54)	(406)
GRI-CEI S/A Productos para transfusao	1,722	(165)	—	—	(411)	1,146
Progenika Biopharma, S.A.	1,030	74	—	—	(11)	1,093
Brainco Biopharma, S.L.	(344)	(29)	—	—	—	(373)
Abyntek Biopharma, S.L.	(85)	(8)	—	—	—	(93)
VCN Bioscience, S.L	—	(63)	(4)		—	(67)
	4,765	(704)	(4)	1,766	(636)	5,187
			(note 3(a))			

(17) Non-Controlling Interests (Continued)

Details of non-controlling interests and movement at 31 December 2016 are as follows:

	Thousands of Euros					
	Balance at 31/12/2015	Additions	Disposals	Capital increases	Translation differences	Balance at 31/12/2016
Grifols (Thailand) Pte Ltd	2,664	778	(215)	—	127	3,354
Grifols Malaysia Sdn Bhd	1,040	144	—	—	(12)	1,172
Araclon Biotech, S.A.	183	(1,819)	—	1,776	—	140
Medion Grifols Diagnostic AG	(406)	—	406	—	—	—
GRI-CEI S/A Productos para transfusao	1,146	—	(1,146)	—	—	—
Progenika Biopharma, S.A.	1,093	165	—	—	(47)	1,211
Brainco Biopharma, S.L.	(373)	—	373	—	—	—
Abyntek Biopharma, S.L.	(93)	20	—	—	—	(73)
VCN Bioscience, S.L	(67)	(201)	—	961	—	693
	5,187	(913)	(582)	2,737	68	6,497
			(note 2(b))			

(18) Grants

Details are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Capital grants	11,311	12,269
Interest rate grants (preference loans)	885	851
	12,196	13,120

Interest-rate grants (preference loans) reflect the implicit interest on loans extended by the Spanish Ministry of Science and Technology as these are interest free.

Grants of Euros 1,154 thousand have been transferred to the consolidated statement of profit and loss during the year ended 31 December 2016 (Euros 1,227 thousand at 31 December 2015 and Euros 849 thousand at 31 December 2014).

(19) Provisions

Details of provisions at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Non-current provisions (a)		
Provisions for pensions and similar obligations	4,195	3,482
Other provisions	923	1,498
Non-current provisions	5,118	4,980

	Thousands of Euros	
	31/12/2016	31/12/2015
Current provisions (b)		
Trade provisions	89,588	123,049
Current provisions	89,588	123,049

(a) Non-current provisions

At 31 December 2016, 2015 and 2014 provisions for pensions and similar obligations mainly comprise a provision made by certain foreign subsidiaries in respect of labor commitments with certain employees.

Movement in provisions during 2014 is as follows:

	Thousands of Euros					
	Balance at 31/12/2013	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2014
Non-current provisions	4,202	2,427	(166)	427	63	6,953
	4,202	2,427	(166)	427	63	6,953

Movement in provisions during 2015 is as follows:

	Thousands of Euros					
	Balance at 31/12/2014	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2015
Non-current provisions	6,953	376	(1,598)	(600)	(151)	4,980
	6,953	376	(1,598)	(600)	(151)	4,980

(19) Provisions (Continued)

Movement in provisions during 2016 is as follows:

	Thousands of Euros					
	Balance at 31/12/2015	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2016
Non-current provisions	4,980	(399)	(281)	814	4	5,118
	4,980	(399)	(281)	814	4	5,118

(b) Current provisions

Movement in trade provisions during 2014 is as follows:

	Thousands of Euros						
	Balance at 31/12/2013	Business Combination	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2014
Trade provisions	51,459	66,138	(15,946)	(3,664)	4,364	13,634	115,985
	51,459	66,138	(15,946)	(3,664)	4,364	13,634	115,985
		(Note 3(b))					

Movement in trade provisions during 2015 is as follows:

	Thousands of Euros					
	Balance at 31/12/2014	Net Charge	Cancellations	Reclassifications	Translation differences	Balance at 31/12/2015
Trade provisions	115,985	(2,562)	(6,123)	492	15,257	123,049
	115,985	(2,562)	(6,123)	492	15,257	123,049

Movement in trade provisions during 2016 is as follows:

	Thousands of Euros				
	Balance at 31/12/2015	Net Charge	Cancellations	Translation differences	Balance at 31/12/2016
Trade provisions	123,049	(28,481)	(6,417)	1,437	89,588
	123,049	(28,481)	(6,417)	1,437	89,588

(20) Financial Liabilities

This note provides information on the contractual conditions of the loans obtained by the Group, which are measured at amortized cost, except the financial derivatives, which are measured at fair value. For further information on exposure to interest rate risk, currency risk and liquidity risk and the fair values of financial liabilities, please refer to note 30.

Details at 31 December 2016 and 2015 are as follows:

	Thousands of Euros	
Financial liabilities	**31/12/2016**	**31/12/2015**
Non-current obligations (a)	831,417	781,416
Senior secured debt (b)	3,728,695	3,664,252
Other loans (b)	114,898	120,326
Finance lease liabilities (c)	6,086	5,852
Other non-current financial liabilities (e)	30,975	25,808
Total non-current financial liabilities	4,712,071	4,597,654
Current obligations (a)	95,524	79,531
Senior secured debt (b)	81,273	74,165
Other loans (b)	23,288	27,002
Financial derivatives (note 30)	—	7,375
Finance lease liabilities (c)	3,859	5,656
Other current financial liabilities (e)	26,121	68,768
Total current financial liabilities	230,065	262,497

On 17 March 2014 the Group concluded its debt refinancing process. The total debt refinanced amounts to US Dollars 5,500 million (Euros 4,075 million) and represents Grifols' entire debt, including the US Dollars 1,500 million bridge loan obtained for the acquisition of Novartis' transfusional diagnostic unit. Following the refinancing process, Grifols' debt structure consists of a US Dollars 4,500 million long-term loan with institutional investors and banks segmented in two tranches (Term Loan A and Term Loan B), and a US Dollars 1,000 million bond issuance (Senior Unsecured Notes).

On 28 October 2015 the Group received an additional loan from the European Investment Bank of up to Euros 100 million at a fixed interest rate for a period of ten years with a grace period of two years. The loan will be used to support certain investments in R&D which are mainly focused on searching for new applications for plasmatic proteins.

(a) Senior Unsecured Notes

On 5 March 2014, Grifols Worldwide Operations Limited, a 100% subsidiary of Grifols, S.A., issued US Dollars 1,000 million Senior Unsecured Notes (the "Notes") that will mature in 2022 and will bear annual interest at a rate of 5.25%. These notes replaced the Senior Unsecured Notes issued in 2011 amounting to US Dollars 1,100 million, with a maturity in 2018 and at interest rate of 8.25%. On 29 May 2014 the Notes have been admitted to listing in the Irish Stock Exchange.

(20) Financial Liabilities (Continued)

The costs of refinancing Senior Unsecured Notes amounted to Euros 67.6 million, including the cost of cancellation. These costs were included as transaction costs together with other costs deriving from the debt issue and will be taken to profit and loss in accordance with the effective interest rate. Based on the analysis of the quantitative and qualitative factors, the Group concluded that the renegotiation of conditions of the Senior Unsecured Notes did not trigger a derecognition of the liability. Unamortized financing costs from the Senior Unsecured Notes amount to Euros 117 million at 31 December 2016 (Euros 137 million at 31 December 2015).

Details of movement in the Senior Unsecured Notes at 31 December 2015 are as follows:

	Thousands of Euros		
	Opening outstanding balance 01/01/15	Translation differences	Closing outstanding balance 31/12/15
Senior Unsecured Notes (nominal amount)	823,655	94,872	918,527
Total	823,655	94,872	918,527

Details of movement in the Senior Unsecured Notes at 31 December 2016 are as follows:

	Thousands of Euros		
	Opening outstanding balance 01/01/16	Translation differences	Closing outstanding balance 31/12/16
Senior Unsecured Notes (nominal amount)	918,527	30,150	948,677
Total	918,527	30,150	948,677

At 31 December 2016 and 2015 the current obligations caption includes the issue of bearer promissory notes to Group employees, as follows:

	31/12/2015						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/15	04/05/16	3,000	4.00%	68,778	(390)	(912)

	31/12/2016						
	Issue date	Maturity date	Nominal amount of promissory notes (Euros)	Interest rate	Promissory notes subscribed (Thousands of Euros)	Buy back (Thousands of Euros)	Interest pending accrual (Thousands of Euros)
Issue of bearer promissory notes	05/05/16	04/05/17	3,000	4.00%	84,966	(789)	(1,104)

(20) Financial Liabilities (Continued)

(b) Loans and borrowings

Details of loans and borrowings at 31 December 2016 and 2015 are as follows:

					Thousands of Euros			
					31/12/2016		31/12/2015	
Credit	Currency	Interest rate	Date awarded	Maturity date	Amount extended	Carrying amount	Amount extended	Carrying amount
Senior debt—Tranche B . .	Euros	Euribor + 3%	27/02/2014	28/02/2021	400,000	385,000	400,000	389,000
Senior debt—Tranche A .	US Dollars	Libor + 2.5%	27/02/2014	29/02/2020	664,074	527,108	642,969	558,579
Senior debt—Tranche B . .	US Dollars	Libor + 3%	27/02/2014	28/02/2021	3,055,168	2,967,574	2,965,308	2,903,114
Total senior debt					4,119,242	3,879,682	4,008,277	3,850,693
EIB Loan	Euros	2.70%	20/11/2015	20/11/2025	100,000	100,000	100,000	100,000
Revolving Credit	US Dollars	Libor + 2.5%	27/02/2014	27/02/2019	284,603	—	275,558	—
Other non-current loans .	Euros	Euribor-Euribor+4%	10/07/2013	30/09/2024	33,000	14,898	33,000	20,326
Loan transaction costs . . .					—	(150,987)	—	(186,441)
Non-current loans and borrowings					**4,536,845**	**3,843,593**	**4,416,835**	**3,784,578**
Senior debt—Tranche B . .	Euros	Euribor + 3%	27/02/2014	28/02/2021	(*)	4,000	(*)	4,000
Senior debt—Tranche A .	US Dollars	Libor + 2.5%	27/02/2014	29/02/2020	(*)	49,806	(*)	44,204
Senior debt—Tranche B . .	US Dollars	Libor + 3%	27/02/2014	28/02/2021	(*)	30,832	(*)	29,852
Total senior debt					—	84,638	—	78,056
Other current loans		1.25% - 14.50%			208,105	23,288	205,260	27,002
Loan transaction costs . . .					—	(3,365)	—	(3,891)
Current loans and borrowings					**208,105**	**104,561**	**205,260**	**101,167**

(*) See amount granted under non-current debt

Current loans and borrowings include accrued interest amounting to Euros 596 thousand as at 31 December 2016 (Euros 519 thousand at 31 December 2015).

On 17 March 2014 the Group refinanced its Senior Secured Debt. The new senior debt consists of a Term Loan A ("TLA"), which amounts to US Dollars 700 million with a 2.50% margin over US Libor and maturity in 2020 and a Term Loan B ("TLB") that amounts to US Dollars 3,250 million and Euros 400 million with a 3.00% margin over Libor and Euribor respectively and maturity in 2021. Furthermore, the embedded floor included in the former senior debt, was terminated.

The present value discounted from cash flows under the new agreement, including costs for fees paid and discounted using the original effective interest rate differs by less than 10% of the present value discounted from cash flows remaining in the original debt, whereby the new agreement is not substantially any different to the original agreement.

(20) Financial Liabilities (Continued)

The costs of refinancing the senior debt amounted to Euros 115.6 million. The termination of the embedded derivatives of the senior debt formed part of the refinancing and the resulting change in the fair values amounting to Euros 23.8 million reduced the financing cost. Based on the analysis of the quantitative and qualitative factors, the Group concluded that the renegotiation of conditions of the senior debt did not trigger a derecognition of the liability. Therefore, the net amount of the financing cost reduced the previous amount recognized and will form part of the amortized cost over the duration of the debt. Unamortized financing costs from the senior secured debt amount to Euros 154 million at 31 December 2016 (Euros 190 million at 31 December 2015).

The terms and conditions of the senior secured debt are as follows:

- **Tranche A:** Senior Debt Loan repayable in six years
  - **US Tranche A** :
    - Original Principal Amount of US Dollars 700 million.
    - Applicable margin of 250 basis points (bp) linked to US Libor 1 month.
    - No floor over US Libor.

Details of Tranche A by maturity at 31 December 2016 are as follows:

	US Tranche A		
	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros
Maturity			
2017	US Dollars	52,500	49,806
2018	US Dollars	52,500	49,806
2019	US Dollars	380,625	361,090
2020	US Dollars	122,500	116,212
Total	US Dollars	608,125	576,914

- **Tranche B:** seven year loan divided into two tranches: US Tranche B and Tranche B in Euros.
  - **US Tranche B :**
    - Original Principal Amount of US Dollars 3,250 million.
    - Applicable margin of 300 basis points linked to US Libor 1 month
    - No floor over US Libor.
  - **Tranche B in Euros:**
    - Original Principal Amount of Euros 400 million.
    - Applicable margin of 300 basis points linked to Euribor 1 month.

(20) Financial Liabilities (Continued)

- No floor over Euribor

Details of Tranche B by maturity at 31 December 2016 are as follows:

	US Tranche B			US Tranche B in Euros	
	Currency	Principal in thousands of US Dollars	Principal in thousands of Euros	Currency	Principal in thousands of Euros
Maturity					
2017	US Dollars	32,500	30,831	Euros	4,000
2018	US Dollars	32,500	30,831	Euros	4,000
2019	US Dollars	32,500	30,831	Euros	4,000
2020	US Dollars	32,500	30,831	Euros	4,000
2021	US Dollars	3,030,625	2,875,082	Euros	373,000
Total	US Dollars	3,160,625	2,998,406	Euros	389,000

- **US Dollar 300 million committed credit revolving facility:** Amount maturing on 27 February 2019. At 31 December 2016 no amount has been drawn down on this facility.

The issue of senior unsecured notes and senior secured debt is subject to compliance with a leverage ratio covenant. At 31 December 2016 the Group complies with this covenant.

Both the Senior Term Loans and the Revolving Loans are guaranteed by Grifols, S.A. and certain significant subsidiaries of Grifols, S.A. that together with Grifols, S.A. represent, in the aggregate, at least 80% of the consolidated assets and consolidated EBITDA of Grifols, S.A. and its subsidiaries.

The Notes have been issued by Grifols Worldwide Operations Limited and are guaranteed on a senior unsecured basis by Grifols, S.A. and the subsidiaries of Grifols, S.A. that are guarantors and co-borrower under the New Credit Facilities. The guarantors are Grifols, S.A., Biomat USA, Inc., Grifols Biologicals Inc., Grifols Shared Services North America, Inc., Grifols Diagnostic Solutions Inc., Grifols Therapeutics, Inc., Instituto Grifols, S.A. and Grifols Worldwide Operations USA, Inc.

(20) Financial Liabilities (Continued)

(c) Finance lease liabilities

Details of minimum payments and the present value of finance lease liabilities, by maturity date, are as follows:

	Thousands of Euros					
	31/12/2016			31/12/2015		
	Minimum payments	Interest	Present Value	Minimum payments	Interest	Present Value
Maturity at:						
Less than one year	4,267	408	3,859	6,158	502	5,656
Two years	3,636	263	3,373	2,914	336	2,578
Three years	1,792	88	1,704	2,271	220	2,051
Four years	672	16	656	897	72	825
Five years	306	5	301	305	9	296
More than five years	53	1	52	106	4	102
Total	10,726	781	9,945	12,651	1,143	11,508

(d) Credit rating

In December 2016 Moody's Investors Service has confirmed the 'Ba3' corporate family rating, 'Ba2' rating to the senior secured bank debt and 'B2' rating to the unsecured notes that were used to refinance the existing debt structure ('Ba2', 'Ba1' and 'B1' respectively in October 2015). The outlook is confirmed as stable.

In December 2016 and June 2015 Standard & Poor's has confirmed its 'BB' rating on Grifols and has assigned 'BB' and 'B+' issue ratings to Grifols' senior secured debt and senior unsecured notes that were used to refinance the existing debt structure. The outlook for the rating is stable.

(e) Other financial liabilities

At 31 December 2016 "other financial liabilities" include interest-free loans extended by governmental institutions amounting to Euros 20,543 thousand (Euros 22,432 thousand at 31 December 2015).The portion of the loans considered a grant and still to be taken to profit and loss amounts to Euros 885 thousand (Euros 851 thousand at 31 December 2015) (see note 18).

At 31 December 2015 "other current financial liabilities" included Euros 24,824 thousand relating to the put and call option extended by the Group and the shareholders of Progenika. On 3 March 2016 the Group announced the acquisition of a further 32.93% stake in Progenika following the exercise of call options agreed in February 2013 (see note 2). At 31 December 2016, "other financial liabilities" include an amount of Euros 5 million related to the remaining call option with maturity on 2018.

At 31 December 2016 and 2015 "other current financial liabilities" also include approximately Euros 17,578 thousand and Euros 39,232 thousand, respectively, which have been collected directly from Spanish Social Security affiliated bodies and transferred to financial institutions (see note 13).

(20) Financial Liabilities (Continued)

Details of the maturity of other financial liabilities are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Maturity at:		
Up to one year	26,121	68,768
Two years	11,468	4,598
Three years	6,203	9,424
Four years	5,802	2,992
Five years	2,490	2,579
Over five years	5,012	6,215
	57,096	94,576

(21) Trade and Other Payables

Details are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Suppliers	**461,073**	**409,986**
VAT payable	10,048	7,138
Taxation authorities, withholdings payable	23,700	23,135
Social security payable	11,422	10,375
Other public entities	97,724	65,523
Other payables	**142,894**	**106,171**
Current income tax liabilities	**7,957**	**16,196**
	611,924	**532,353**

Suppliers

Details of balances with related parties are shown in note 31.

The Group's exposure to currency risk and liquidity risk associated with trade and other payables is described in note 30.

(21) Trade and Other Payables (Continued)

In accordance with the second final provision of Law 31/2014 that amends Law 15/2010 of 5 July 2010, for fiscal years 2016 and 2015 information concerning the average payment period to suppliers is included.

	Days	
	31/12/2016	31/12/2015
Average payment period to suppliers	72.0	72.3
Paid invoices radio	71.5	72.2
Outstanding invoices radio	76.6	73.3

	Thousands of Euros	
	31/12/2016	31/12/2015
Total invoices paid	460,054	402,113
Total outstanding invoices	42,490	54,154

(22) Other Current Liabilities

Details at 31 December are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Salaries payable	132,755	124,433
Other payables	427	1,040
Deferred income	441	3,837
Advances received	6,563	5,354
Other current liabilities	140,186	134,664

(23) Net Revenues

Net revenues are mainly generated from the sale of goods.

The distribution of net consolidated revenues for 2016, 2015 and 2014 by segment is as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Bioscience	3,228,275	3,032,111	2,513,510
Diagnostic	663,983	691,452	620,022
Hospital	98,583	96,245	94,800
Raw Material and others	58,989	114,755	127,052
	4,049,830	3,934,563	3,355,384

(23) Net Revenues (Continued)

The geographical distribution of net consolidated revenues is as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
USA and Canada	2,663,197	2,505,791	2,042,700
Spain	217,497	207,641	214,558
European Union	422,752	455,276	448,244
Rest of the world	687,395	651,100	522,830
Subtotal	3,990,841	3,819,808	3,228,332
Raw Materials and others	58,989	114,755	127,052
Consolidated	4,049,830	3,934,563	3,355,384

Details of discounts and other reductions in gross income are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Gross sales	4,882,615	4,579,759	3,704,597
Chargebacks	(652,564)	(488,072)	(221,129)
Cash discounts	(51,953)	(46,150)	(32,255)
Volume rebates	(51,242)	(49,458)	(38,409)
Medicare and Medicaid	(47,820)	(25,710)	(22,690)
Other discounts	(29,206)	(35,806)	(34,730)
Net sales	4,049,830	3,934,563	3,355,384

Movement in discounts and other reductions in gross income during 2014 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2013	16,978	3,267	18,297	7,557	210	46,309
Current estimate related to sales made in current and prior year	221,129	32,255	38,409	22,690	34,730	349,213[1]
(Actual returns or credits in current period related to sales made in current period)	(186,046)	(28,628)	(29,819)	(17,121)	(33,480)	(295,094)[2]
(Actual returns or credits in current period related to sales made in prior periods)	1,626	(2,137)	(5,167)	1,596	3,002	(1,080)[3]
Translation differences	4,744	(19)	(690)	101	(1,288)	2,848
Balance at 31 December 2014	**58,431**	**4,738**	**21,030**	**14,823**	**3,174**	**102,196**

(23) Net Revenues (Continued)

Movement in discounts and other reductions to gross income during 2015 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2014	58,431	4,738	21,030	14,823	3,174	102,196
Current estimate related to sales made in current and prior year	488,072	46,150	49,458	25,710	35,806	645,196[1]
(Actual returns or credits in current period related to sales made in current period)	(428,041)	(44,867)	(18,211)	(18,402)	(34,059)	(543,580)[2]
(Actual returns or credits in current period related to sales made in prior periods)	—	(246)	(25,051)	(11,257)	(1,791)	(38,345)[3]
Translation differences	7,716	127	2,454	1,594	2,237	14,128
Balance at 31 December 2015	**126,178**	**5,902**	**29,680**	**12,468**	**5,367**	**179,595**

Movement in discounts and other reductions to gross income during 2016 were as follows:

	Thousands of Euros					
	Chargebacks	Cash discounts	Volume rebates	Medicare / Medicaid	Other discounts	Total
Balance at 31 December 2015	126,178	5,902	29,680	12,468	5,367	179,595
Current estimate related to sales made in current and prior year	652,564	51,953	51,242	47,820	29,206	832,785[1]
(Actual returns or credits in current period related to sales made in current period)	(693,458)	(51,733)	(27,409)	(24,988)	(27,243)	(824,831)[2]
(Actual returns or credits in current period related to sales made in prior periods)	—	(248)	(27,732)	(14,401)	(2,986)	(45,367)[3]
Translation differences	1,965	758	726	858	98	4,405
Balance at 31 December 2016	**87,249**	**6,632**	**26,507**	**21,757**	**4,442**	**146,587**

(1) Net impact in income statement: estimate for the current year plus prior years' adjustments. Adjustments made during the year corresponding to prior years' estimates have not been significant.

(2) Amounts credited and posted against provisions for current period

(3) Amounts credited and posted against provisions for prior period

(24) Personnel Expenses

Details of personnel expenses by function are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Cost of sales	635,577	592,037	479,055
Research and development	77,988	76,780	66,857
Selling, general & administration expenses	314,348	269,718	253,489
	1,027,913	938,535	799,401

Details by nature are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Wages and salaries	822,384	756,570	639,639
Contributions to pension plans (note 29)	18,486	14,587	15,589
Other social charges	25,074	22,071	17,279
Social Security	161,969	145,307	126,894
	1,027,913	938,535	799,401

The average headcount during 2016 and 2015, by department, was approximately as follows:

	Average headcount	
	31/12/2016	31/12/2015
Manufacturing	10,718	10,526
R&D - technical area	790	771
Administration and others	1,053	1,016
General management	206	183
Marketing	161	166
Sales and Distribution	1,123	1,069
	14,051	13,731

(24) Personnel Expenses (Continued)

The headcount of the Group and the Company's board of directors at 31 December 2015, by gender, is as follows:

	31/12/2015		
	Male	Female	Total number of employees
Directors	8	4	12
Manufacturing	5,058	6,351	11,409
Research & development - technical area	302	510	812
Administration and others	561	471	1,032
General management	105	110	215
Marketing	68	90	158
Sales and Distribution	622	489	1,111
	6,724	8,025	14,749

The headcount of the Group and the Company's board of directors at 31 December 2016, by gender, is as follows:

	31/12/2016		
	Male	Female	Total number of employees
Directors	9	4	13
Manufacturing	5,085	6,315	11,400
Research & development - technical area	304	508	812
Administration and others	607	488	1,095
General management	117	121	238
Marketing	67	101	168
Sales and Distribution	632	532	1,164
	6,821	8,069	14,890

(25) Expenses by Nature

(a) Amortization and depreciation

Expenses for the amortization and depreciation of intangible assets and property, plant and equipment, incurred during 2016, 2015 and 2014 classified by functions are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Cost of sales	126,998	110,898	81,226
Research and development	13,050	13,654	13,053
Selling, general & administration expenses	61,821	65,203	95,193
	201,869	189,755	189,472

(b) Other operating income and expenses

Other operating income and expenses incurred during 2016, 2015 and 2014 by function are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Cost of sales	454,097	426,531	315,483
Research and development	113,078	118,667	85,501
Selling, general & administration expenses	393,523	403,944	356,612
	960,698	949,142	757,596

Details by nature are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Changes in trade provisions	(22,069)	(763)	(18,032)
Professional services	190,003	173,990	134,062
Commissions	20,147	20,474	20,002
Supplies and auxiliary materials	119,014	115,471	89,244
Operating leases (note 28)	74,945	70,496	87,504
Freight	96,680	83,352	70,760
Repair and maintenance expenses	89,797	81,087	62,054
Advertising	51,233	47,860	59,912
Insurance	20,008	19,501	17,842
Royalties	9,217	9,386	9,723
Travel expenses	53,239	52,606	45,014
External services	43,231	56,743	65,717
R&D Expenses	78,379	81,319	52,344
Other	136,874	137,620	61,450
Other operating income&expenses	960,698	949,142	757,596

(26) Finance Result

Details are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Finance income	9,934	5,841	3,069
Finance cost from Senior Unsecured Notes	(73,491)	(72,783)	(62,936)
Finance cost from senior debt	(168,332)	(161,624)	(145,438)
Finance cost from sale of receivables (note 13)	(4,885)	(6,512)	(6,271)
Capitalized interest	13,019	9,795	5,152
Other finance costs	(11,140)	(9,211)	(15,542)
Finance costs	(244,829)	(240,335)	(225,035)
Change in fair value of financial derivatives (note 30)	(7,610)	(25,206)	(20,984)
Impairment and gains / (losses) on disposal of financial instruments	—	—	(5)
Exchange differences	8,916	(12,140)	(18,472)
Finance result	(233,589)	(271,840)	(261,427)

During 2016 the Group has capitalized interest at a rate of between 4.8% and 5.2% based on the financing received (between 5.2% and 5.26% during 2015) (see note 4 (f)).

(27) Taxation

Grifols, S.A. is authorized to file consolidated tax returns in Spain with Diagnostic Grifols, S.A., Movaco, S.A., Laboratorios Grifols, S.A., Instituto Grifols, S.A., Grifols Worldwide Operations Spain, S.A. (formerly Logister, S.A), Biomat, S.A., Grifols Viajes, S.A., Grifols International, S.A., Grifols Engineering, S.A., Gri-Cel, S.A. and Gripdan Invest, S.L.. Grifols, S.A., in its capacity as Parent, is responsible for the filing and settlement of the consolidated tax return. Under prevailing tax law, Spanish companies pay 25% tax, which may be reduced by certain deductions.

The North American company Grifols Shared Services North America, Inc. is also authorized to file consolidated tax returns in the USA with Grifols Biologicals Inc., Grifols USA, LLC., Biomat USA, Inc., Grifols Therapeutics Inc. and Talecris Plasma Resources, Inc. The profits of the companies domiciled in the USA, determined in accordance with prevailing tax legislation, are subject to tax of approximately 36.5% of taxable income, which may be reduced by certain deductions.

(27) Taxation (Continued)

(a) Reconciliation of accounting and taxable income

Details of the income tax expense and income tax related to profit for the year are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Profit before income tax from continuing operations	712,752	690,250	589,680
Tax at 25% (28% for 2015 and 30% for 2014)	178,188	193,270	176,904
Permanent differences	8,019	(2,709)	(9,026)
Effect of different tax rates	14,509	(24,524)	(29,253)
Tax credits (deductions)	(20,163)	(19,487)	(22,913)
Prior year income tax expense	928	2,723	(1,391)
Other income tax expenses/(income)	(13,272)	9,536	8,276
Total income tax expense	168,209	158,809	122,597
Deferred tax	(40,161)	24,357	4,765
Current tax	208,370	134,452	117,832
Total income tax expense	168,209	158,809	122,597

The effect of the different tax rates is basically due to a change of country mix in profits

In accordance with tax legislation modifications issued in Spain for fiscal years 2016, 2015 and 2014, the Group has recalculated the impact of adjusting deferred tax assets and liabilities to tax rates of 28% and 25%, respectively. The impact recognised under "Total income tax expense" amounts to Euros 0.3 million in fiscal year 2015 (Euros 4.4 million in fiscal year 2014).

(27) Taxation (Continued)

(b) Deferred tax assets and liabilities

Details of deferred tax assets and liabilities are as follows:

	Thousands of Euros		
	Tax effect		
	31/12/2016	31/12/2015	31/12/2014
Assets			
Provisions	3,696	38,004	58,966
Inventories	39,297	37,141	35,110
Tax credits (deductions)	37,685	42,533	34,892
Tax loss carryforwards	10,717	30,668	18,240
Other	3,393	6,961	1,838
Subtotal, assets	94,788	155,307	149,046
Goodwill	(19,136)	(77,755)	(56,615)
Fixed assets, amortisation and depreciation	(7,062)	(10,409)	(7,579)
Intangible assets	(1,371)	(349)	(2,407)
Subtotal, net liabilities	(27,569)	(88,513)	(66,601)
Deferred assets, net	67,219	66,794	82,445
Liabilities			
Goodwill	(131,039)	(35,877)	(29,706)
Intangible assets	(392,388)	(404,617)	(361,469)
Fixed assets	(158,060)	(119,858)	(110,929)
Debt cancellation costs	(64,762)	(77,514)	(83,315)
Inventories	(1,175)	(32,351)	(24,242)
Cash flow hedges	—	(982)	(821)
Subtotal, liabilities	(747,424)	(671,199)	(610,482)
Tax loss carryforwards	40,358	7,097	6,268
Provisions	61,252	22,085	50,078
Other	45,168	10,452	15,350
Subtotal, net assets	146,778	39,634	71,696
Net deferred Liabilities	(600,646)	(631,565)	(538,786)

(27) Taxation (Continued)

Movement in deferred tax assets and liabilities is as follows:

	Thousands of Euros		
Deferred tax assets and liabilities	**31/12/2016**	**31/12/2015**	**31/12/2014**
Balance at 1 January	(564,771)	(456,341)	(419,488)
Movements during the year	40,161	(24,357)	(4,766)
Movements in equity during the year	—	(10,960)	(3,864)
Business combination (note 3)	—	—	34,899
Translation differences	(8,817)	(73,113)	(63,122)
Balance at 31 December	(533,427)	(564,771)	(456,341)

The Spanish companies have opted to apply accelerated depreciation to certain additions to property, plant and equipment, which has resulted in the corresponding deferred tax liability.

Details of deferred tax assets and liabilities on items directly debited and credited to equity during the year are as follows:

	Thousands of Euros		
	Tax effect		
	31/12/2016	**31/12/2015**	**31/12/2014**
Cash flow hedges (note 15 (f))	—	(10,960)	(3,864)
	—	(10,960)	(3,864)

The remaining assets and liabilities recognized in 2016, 2015 and 2014 were recognized in the statement of profit and loss.

Estimated net deferred tax liabilities to be reversed in a period of less than 12 months amount to Euros 99.897 thousand at 31 December 2016 (Euros 53,747 thousand at 31 December 2015).

The majority of the tax deductions pending application from Spanish companies related mainly to research and development, mature in 18 years.

Tax credits derived from the US companies are available for 20 years from their date of origin whilst tax credits from Spanish companies registered in the Basque Country are available for 15 and other remaining Spanish companies have no maturity date.

The Group has not recognized as deferred tax assets the tax effect of the tax loss carryforwards of Group companies, which amount to Euros 67,044 thousand (Euros 67,955 thousand at 31 December 2015).

The commitments from Spanish companies from the reversal of deferred tax related to provisions of investments in subsidiaries are not significant.

(27) Taxation (Continued)

(c) Years open to inspection

Under prevailing legislation, taxes cannot be considered to be definitively settled until the returns filed have been inspected by the taxation authorities, or the prescription period has elapsed.

The main tax audits currently open in the Group are as follows:

- Grifols Shared Services North America, Inc. and subsidiaries: notification of an inspection of State Income tax in North Carolina and New York states (tax years 2012 to 2014).
- Grifols Diagnostic Solutions, Corp.: notification of an inspection of the "federal tax return" for the fiscal year 2014.
- Grifols Brasil, Lda: notification of inspection of services tax for the years 2012 to 2016.
- Logística Grifols, S.A. de C.V.: notification of inspection of corporate tax and VAT for the year 2010.
- Grifols, S.A., Instituto Grifols, S.A., Movaco, S.A. and Biomat, S.A.: Income Tax audit, Withholdings and VAT Audit for the tax years ended 2010, 2011 and 2012 that were initiated as of July 2014. During tax year 2016 these inspections have been closed without any significant adjustment.

Group management does not expect any significant liability to derive from these inspections.

(28) Operating Leases

(a) Operating leases (as lessee)

At 31 December 2016, 2015 and 2014 the Group leases buildings and warehouses from third parties under operating leases.

Operating lease instalments of Euros 74,945 thousand have been recognized as an expense for the year ended at 31 December 2016 (Euros 70,496 thousand at 31 December 2015 and Euros 87,504 thousand at 31 December 2014) and comprise minimum lease payments.

Future minimum payments on non-cancellable operating leases at 31 December 2016, 2015 and 2014 are as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Maturity at:			
Up to 1 year	56,869	77,951	44,331
Between 1 and 5 years	181,076	126,644	109,531
More than 5 years	119,579	101,319	51,689
Total future minimum payments	357,524	305,914	205,551

(b) Operating leases (as lessor)

At 31 December 2016, 2015 and 2014 the Group has no lease contracts as lessor.

(29) Other Commitments with Third Parties and Other Contingent Liabilities

(a) Guarantees

The Group has no significant guarantees extended to third parties.

(b) Guarantees committed with third parties

The Group has no significant guarantees extended to third parties.

(c) Obligations with personnel

The Group's annual contribution to defined contribution pension plans of Spanish Group companies for 2016 has amounted to Euros 674 thousand (Euros 647 thousand for 2015).

In successive years this contribution will be defined through labor negotiations.

In the event that control is taken of the Company, the Group has agreements with 77 employees/directors whereby they can unilaterally rescind their employment contracts with the Company and are entitled to termination benefits ranging from 2 to 5 years' salary.

The Group has contracts with nine executives entitling them to termination benefits ranging from one to four years of their salary in different circumstances.

Restricted Share Unit Retention Plan

For the bonuses for 2014 and 2015, payable in 2015 and 2016, the Group established a Restricted Share Unit Retention Plan (RSU Plan), for eligible employees. Under this plan, employees can choose to receive up to 50% of their yearly bonus in non-voting Class B ordinary shares (Grifols Class B Shares) or Grifols American Depositary Shares (Grifols ADS), and the Group will match this with an additional 50% of the employee's choice of RSUs.

Grifols Class B Shares and Grifols ADS are valued at the date of payment of the bonus, and no cash dividends will be paid in respect of these shares.

These RSUs will have a vesting period of 2 years and 1 day and, subsequently, the RSU's will be exchanged for Grifols Class B Shares or Grifols ADS (American Depositary Share representing 1 Class B Share).

If an eligible employee leaves the Company or is terminated before the vesting period, he will not be entitled to the additional RSUs.

This commitment is treated as equity-settled and the amount totals Euros 10,594 thousand at 31 December 2016 (Euros 4,532 thousand at 31 December 2015).

Savings plan and profit-sharing plan

The Group has a defined contribution plan (savings plan), which qualifies as a deferred salary arrangement under Section 401 (k) of the Internal Revenue Code (IRC). Once eligible, employees may elect to contribute a portion of their salaries to the savings plan, subject to certain limitations. The Group matches 100% of the first 3% of employee contributions and 50% of the next 2%. Group and employee

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

contributions are fully vested when contributed. The plan assets are held in trust and invested as directed by the plan participants. The total cost of matching contributions to the savings plan was US Dollars 17 million for 2016 (US Dollars 12.7 million for 2015). Costs of contributions derived from the Defined Contribution Plan were included in the savings plan for the year 2014 since the acquisition of the Novartis Diagnostic Unit in January 2014. The recognition of the cost of these contributions was consistent with each participant's salary. In 2015 this cost has been terminated.

Other plans

The Group has a defined benefit pension plan for certain Talecris Biotherapeutics, GmbH employees in Germany as required by statutory law. The pension cost relating to this plan was not material for the periods presented.

(d) Purchase commitments

Details of the Group's commitments at 31 December 2016 are as follows:

	Thousands of Euros
2017	13,145
2018	12,811
2019	15,027
2020	12,129
2021	3,875
2022	939
2023	887
2024	887

(e) Judicial procedures and arbitration

Details of legal proceedings in which the Company or Group companies are involved are as follows:

The Group carried out an internal investigation, already started prior to the acquisition of Talecris, in relation to possible breaches of the Foreign Corrupt Practices Act (FCPA) of which Talecris was aware in the context of a review unrelated to this matter. This FCPA investigation was carried out by an external legal advisor. In principle, the investigation was focused on sales to certain Central and Eastern European countries, specifically Belarus and Russia, although trading practices in Brazil, China, Georgia, Iran and Turkey are also being investigated, in addition to other countries considered necessary.

In July 2009, the Talecris Group voluntarily contacted the U.S. Department of Justice (DOJ) to inform them of an internal investigation that the Group was carrying out regarding possible breaches of the FCPA in certain sales to certain central and East European countries and to offer the Group's collaboration in any investigation that the DOJ wanted to carry out. As a result of this investigation the Group suspended shipments to some of these countries. In certain cases, the Group had safeguards in

(29) Other Commitments with Third Parties and Other Contingent Liabilities (Continued)

place which led to terminating collaboration with consultants and suspending or terminating relations with distributors in those countries under investigation as circumstances warranted.

As a consequence of the investigation, the agreement with Talecris' Turkish distributor was terminated and a settlement agreement was reached between the parties. In November 2012, the Group was notified by the DOJ that the proceedings would be closed, without prejudice to the fact that they could be re-opened in the future should new information arise. The Group continues with the in-depth review of potential irregular practices.

Furthermore, an investigation was opened in Italy, in relation with the criminal prosecution in Naples against 5 employees of the Company, including the former General Manager.

From these 5 employees of the Company initially charged, the Naples Tribunal resolved discharging 3 of them, continuing the judicial process only against the remaining 2 employees. Additionally, the Company has finalized the internal investigation opened in Italy as a consequence of the indicated judicial proceedings, and in November 2015 a meeting took place with the DOJ to report on the conclusions derived from the investigation.

Additionally to the above and as part of the in-depth review of potential irregular practices that the Group is carrying out in relation to its recent acquisitions, the Company opened internal investigations in Mexico as well as in the Czech Republic to review the commercial practices in such countries. Both investigations have finalized, without having detected any significant practice that could imply a breach of the FCPA.

On September 2016, the United States Department of Justice (the "Department") notified the Group that the Department has closed its inquiry into Grifols, concerning possible violations of the U.S. Foreign Corrupt Practices Act. In its notice of declination to prosecute, the Department acknowledged the full cooperation of Grifols in the investigation.

- As a result of the acquisition of the transfusional Diagnostic unit, the Group considers that there could have existed inadequate commercial and contractual practices which could originate in potential contingencies.

(30) Financial Instruments

Classification

Disclosure of financial instruments by nature, category and fair value is as follows:

	Thousand of Euros							
	31/12/2015							
	Carrying amount				Fair Value			
	Loans and receivables	Financial instruments held for trading	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	30,388	—	—	30,388				
Other current financial assets	1,294	—	—	1,294				
Trade and other receivables	394,464	—	—	394,464				
Cash and cash equivalents	1,142,500	—	—	1,142,500				
Financial assets not measured at fair value	**1,568,646**	**—**	**—**	**1,568,646**				
Financial derivatives	—	(7,375)	—	(7,375)	—	(7,375)	—	(7,375)
Financial liabilities at fair value	**—**	**(7,375)**	**—**	**(7,375)**				
Senior Unsecured Notes	—	—	(793,472)	(793,472)	(927,712)	—	—	(927,712)
Promissory Notes	—	—	(67,475)	(67,475)				
Senior secured debt	—	—	(3,738,417)	(3,738,417)	(3,929,517)	—	—	(3,929,517)
Other bank loans	—	—	(147,328)	(147,328)				
Finance lease payables	—	—	(11,508)	(11,508)				
Other financial liabilities	—	—	(94,576)	(94,576)				
Trade and other payables	—	—	(409,986)	(409,986)				
Debts with associates	—	—	(443)	(443)				
Other current liabilities	—	—	(10,231)	(10,231)				
Financial liabilities not measured at fair value	**—**	**—**	**(5,273,436)**	**(5,273,436)**				
	1,568,646	**(7,375)**	**(5,273,436)**	**(3,712,165)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

	Thousand of Euros								
	31/12/2016								
	Carrying amount					Fair Value			
	Loans and receivables	Financial instruments held for trading	Available for sale financial assets	Debts and payables	Total	Level 1	Level 2	Level 3	Total
Non-current financial assets	15,201	—	29,998	—	45,199	29,998	15,201	—	45,199
Financial derivatives	—	13,665	—	—	13,665	—	13,665	—	13,665
Financial assets measured at fair value	**15,201**	**13,665**	**29,998**	**—**	**58,864**				
Non-current financial assets	30,681	—	—	—	30,681				
Other current financial assets	2,582	—	—	—	2,582				
Trade and other receivables	434,136	—	—	—	434,136				
Cash and cash equivalents	895,009	—	—	—	895,009				
Financial assets not measured at fair value	**1,362,408**	**—**	**—**	**—**	**1,362,408**				
Senior Unsecured Notes	—	—	—	(843,868)	(843,868)	(904,377)	—	—	(904,377)
Promissory Notes	—	—	—	(83,073)	(83,073)				
Senior secured debt	—	—	—	(3,809,968)	(3,809,968)	(3,811,970)	—	—	(3,811,970)
Other bank loans	—	—	—	(138,186)	(138,186)				
Finance lease payables	—	—	—	(9,945)	(9,945)				
Other financial liabilities	—	—	—	(57,096)	(57,096)				
Trade and other payables	—	—	—	(461,073)	(461,073)				
Other current liabilities	—	—	—	(7,431)	(7,431)				
Financial liabilities not measured at fair value	**—**	**—**	**—**	**(5,410,640)**	**(5,410,640)**				
	1,377,609	**13,665**	**29,998**	**(5,410,640)**	**(3,989,368)**				

The Group does not provide details of the fair value of certain financial instruments as their carrying amount is very similar to their fair value because of its short term.

(30) Financial Instruments (Continued)

Financial derivatives

At 31 December 2016 and 2015 the Group has recognized the following derivatives:

				Thousands of Euros		
Financial derivatives	Currency	Notional amount at 31/12/2016	Notional amount at 31/12/2015	Value at 31/12/16	Value at 31/12/15	Maturity
Interest rate swap (cash flow hedges)	US Dollar	—	694,445,000	—	(6,789)	30/06/2016
Interest rate swap (cash flow hedges)	Euros	—	100,000,000	—	(586)	31/03/2016
Swap Option	Euros	—	100,000,000	—	—	31/03/2016
Call Option (note 2)	US Dollar	N/A	N/A	9,487	—	30/04/2019
Embedded derivative (note 11)	US Dollar	N/A	N/A	4,178	—	31/05/2021
Total				13,665	(7,375)	
Total Assets (notes 2 and 11)				13,665	—	
Total Liabilities (note 20)				—	(7,375)	

On May 11, 2016 the Group has paid an aggregate amount equal to US Dollars 10 million (Euros 8,960 thousand) in respect of the call right for the Interstate Blood Bank, Inc. shares, Bio-Blood Components, Inc. shares and Plasma Biological Services, LLC. units that are not owned by the Group. The call right can be exercised by the Group by delivering written notice of its intention at any time on or after February 1, 2019 and on or before April 30, 2019 (see notes 2 and 11).

Financial derivatives are measured based on observable market data (level 2 of fair value hierarchy). Regarding the valuation of derivative instruments, the selection of the appropriate data within the alternatives requires the use of judgement in qualitative factors such as, which methodology and valuation models are used, and in quantitative factors, data required to be included within the chosen models.

(a) Derivative financial instruments at fair value through profit and loss

Derivative financial instruments that do not meet the hedge accounting requirements are classified and measured as financial assets or financial liabilities at fair value through profit and loss.

(b) Hedging derivative financial instruments

See note 15(f).

In June 2011, the Group subscribed two derivatives in order to comply with the mandatory hedging according to the Credit Agreement: a step-up interest rate swap and a swap floor, which originally had notional amounts of US Dollars 1,550 million each. The amortizing step up interest rate swap was not changed due to the improvement of the new Credit Agreement and the notional amount at the end of December 2015 stood at US Dollars 694 million. The Swap had quarterly amortizations, in order to always

(30) Financial Instruments (Continued)

remain below the amounts borrowed to avoid being over hedged. The interest rate swap complied with the criteria required for hedge accounting.

At 31 December 2016, the Company has no derivatives in place that qualify for hedge accounting.

Credit risk

(a) Exposure to credit risk

The carrying amount of financial assets represents the maximum exposure to credit risk. At 31 December 2016 and 2015 the maximum level of exposure to credit risk is as follows:

		Thousands of Euros	
Carrying amount	**Note**	**31/12/2016**	**31/12/2015**
Non-current financial assets	11	89,545	30,388
Other current financial assets	11	2,582	1,294
Trade receivables	13	413,656	362,406
Other receivables	13	20,480	32,058
Cash and cash equivalents	14	895,009	1,142,500
		1,421,272	1,568,646

The maximum level of exposure to risk associated with receivables at 31 December 2016 and 2015, by geographical area, is as follows.

	Thousands of Euros	
Carrying amount	**31/12/2016**	**31/12/2015**
Spain	56,104	56,160
EU countries	52,034	61,720
United States of America	196,885	134,872
Other European countries	13,428	6,329
Other regions	115,685	135,383
	434,136	394,464

(30) Financial Instruments (Continued)

Details of balances receivable by country such as Greece, Italy, Spain and Portugal at 31 December 2015 are as follows:

	Thousands of Euros						
	Balances with public entities			Balance with third parties			
	Balance (1)	Balance past due	Provision for doubtful receivables (2)	Balance (3)	Balance past due	Provision for doubtful receivables (4)	Net debt (1)+(2)+(3)+(4)
Greece	—	—	—	1,815	854	—	1,815
Italy	11,918	7,294	(144)	12,332	5,308	(2,777)	21,329
Spain	33,937	4,079	—	11,431	6,978	(707)	44,661
Portugal	2,664	1,394	(460)	202	68	(26)	2,380
	48,519	12,767	(604)	25,780	13,208	(3,510)	70,185

Details of balances receivable by country such as Greece, Italy, Spain and Portugal at 31 December 2016 are as follows:

	Thousands of Euros						
	Balances with public entities			Balance with third parties			
	Balance(1)	Balance past due	Provision for doubtful receivables (2)	Balance (3)	Balance past due	Provision for doubtful receivables (4)	Net debt (1)+(2)+(3)+(4)
Greece	—	—	—	425	—	(137)	288
Italy	7,188	2,077	—	12,196	7,375	(3,098)	16,286
Spain	23,281	3,287	—	27,316	9,595	(249)	50,348
Portugal	2,734	1,205	(356)	129	78	(27)	2,480
	33,203	6,569	(356)	40,066	17,048	(3,511)	69,402

Provision has been made for balances receivable from Portuguese public entities on the basis of the best estimate of their expected collection in view of the current situation regarding negotiations. The Group does not currently have any reason to consider that the receivables from public entities in Spain will not be recoverable.

(30) Financial Instruments (Continued)

(b) Impairment losses

Details of the maturity of trade receivables, net of impairment provisions are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Not matured	360,018	321,450
Less than 1 month	24,650	21,610
1 to 4 months	29,318	25,680
4 months to 1 year	10,045	10,858
More than one year	10,105	14,866
	434,136	394,464

Unimpaired receivables that are past due mainly relate to public entities.

Movement in the bad debt provision was as follows:

	Thousands of Euros		
	31/12/2016	31/12/2015	31/12/2014
Opening balance	13,210	14,092	16,073
Business combination	—	—	764
Net charges for the year	6,411	1,800	(2,013)
Net cancellations for the year	(2,217)	(2,984)	(1,144)
Translation differences	583	302	412
Closing balance	17,987	13,210	14,092

An analysis of the concentration of credit risk is provided in note 5 (a).

Liquidity risk

The management of the liquidity risk is explained in note 5.

(30) Financial Instruments (Continued)

Details of the contractual maturity dates of financial liabilities including committed interest calculated using interest rate forward curves are as follows:

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/15	Contractual flows	6 months or less	6 - 12 months	1 - 2 years	2 - 5 years	More than 5 years
Financial liabilities								
Bank loans	20	3,885,745	4,959,027	129,631	118,796	252,659	4,404,772	53,169
Other financial liabilities	20	94,576	94,576	40,294	28,474	3,932	19,620	2,256
Bonds and other marketable securities	20	860,947	1,311,506	103,643	24,111	48,223	192,891	942,638
Finance lease payables	20	11,508	12,650	4,450	1,708	2,918	3,571	3
Payable to associates	31	443	443	443	—	—	—	—
Payable to suppliers	21	409,986	409,986	409,381	605	—	—	—
Other current liabilities	22	10,231	10,231	9,606	625	—	—	—
Financial liabilities for hedging derivatives	20	7,375	7,375	7,375	—	—	—	—
Total		5,280,811	6,805,794	704,823	174,319	307,732	4,620,854	998,066

		Thousands of Euros						
Carrying amount	Note	Carrying amount at 31/12/16	Contractual flows	6 months or less	6 - 12 months	1 - 2 years	2 - 5 years	More than 5 years
Financial liabilities								
Bank loans	20	3,948,154	4,669,325	134,918	119,476	192,059	4,183,259	39,613
Other financial liabilities	20	57,096	57,096	23,082	3,039	11,468	16,686	2,821
Bonds and other marketable securities	20	926,941	1,305,680	107,975	24,903	49,806	1,122,996	—
Finance lease payables	20	9,945	10,725	2,195	2,072	3,630	2,828	—
Payable to suppliers	21	461,073	461,073	461,029	44	—	—	—
Other current liabilities	22	7,431	7,431	7,118	313	—	—	—
Total		5,410,640	6,511,330	736,317	149,847	256,963	5,325,769	42,434

(30) Financial Instruments (Continued)

Currency risk

The Group's exposure to currency risk is as follows:

	Thousands of Euros	
	31/12/2015	
	Euros(*)	Dollars(**)
Trade receivables	12,234	9,762
Receivables from Group companies	38,650	289,754
Loans to Group companies	711,674	258,409
Cash and cash equivalents	98,983	13,780
Trade payables	(9,003)	(7,760)
Payables to Group companies	(37,678)	(2,613)
Loans from Group companies	(373,102)	(3,971)
Bank loans	(493,000)	—
Balance sheet exposure	(51,242)	557,361

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

	Thousands of Euros	
	31/12/2016	
	Euros(*)	Dollars(**)
Trade receivables	5,576	7,520
Receivables from Group companies	33,792	37,740
Loans to Group companies	597,897	1,854
Cash and cash equivalents	32,255	21,254
Trade payables	(11,188)	(5,062)
Payables to Group companies	(42,395)	(32,159)
Loans from Group companies	(268,040)	(4,295)
Bank loans	(489,000)	—
Balance sheet exposure	(141,103)	26,852

(*) Balances in Euros in subsidiaries with US Dollars functional currency

(**) Balances in US Dollars in subsidiaries with Euros functional currency

(30) Financial Instruments (Continued)

The most significant exchange rates applied at 2016 and 2015 year ends are as follows:

	Closing exchange rate	
Euros	31/12/2016	31/12/2015
US Dollars	1.0541	1.0887

A sensitivity analysis for foreign exchange fluctuations is as follows:

Had the US Dollar strengthened by 10% against the Euro at 31 December 2016, equity would have increased by Euros 318,528 thousand (Euros 300,372 thousand at 31 December 2015) and profit due to foreign exchange differences would have decreased by Euros 11,425 thousand (would have increased by Euros 50,612 thousand at 31 December 2015). This analysis assumes that all other variables are held constant, especially that interest rates remain constant.

A 10% weakening of the US Dollar against the Euro at 31 December 2016 and 2015 would have had the opposite effect for the amounts shown above, all other variables being held constant.

Interest rate risk

(a) Interest-rate profile

To date, the profile of interest on interest-bearing financial instruments is as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Fixed-interest financial instruments		
Financial liabilities	(1,048,676)	(1,756,393)
	(1,048,676)	(1,756,393)
Variable-interest financial instruments		
Financial liabilities	(3,964,320)	(3,190,883)
	(3,964,320)	(3,190,883)
	(5,012,996)	(4,947,276)

(b) Sensitivity analysis

If the interest rate had been 100 basis points higher during 2016, the interest expense would have increased by Euros 40.7 million and the finance cost due to changes in the value of derivatives would have been Euros 2.6 million lower. The impact on equity is not significant because of derivatives close to maturity on 31 March 2016 for Euro swaps and 30 June 2016 for US dollar swaps. Therefore, the net effect on cash interest payments should have been Euros 38.1 million.

If the interest rate had been 100 basis points higher during 2015, the interest expense would have increased by Euros 40.3 million, the finance cost due to changes in the value of derivatives would have been Euros 8.6 million lower and equity would have increased by Euros 2.2 million. Therefore, the net effect on cash interest payments should have been Euros 31.7 million.

(31) Balances and Transactions with Related Parties

Details of balances with related parties are as follows:

	Thousands of Euros	
	31/12/2016	31/12/2015
Receivables from associates (note 13)	133	70
Trade payables associates	(4,221)	—
Loans to associates (note 11)	15,994	25,755
Debts with associates	—	(443)
Debts with key management personnel	(6,662)	(3,962)
Payables to members of the board of directors	—	(475)
Payables to other related parties	(8,473)	(10,178)
	(3,229)	10,767

Payables are included in suppliers and trade payables (see note 21).

(a) Group transactions with related parties

Group transactions with related parties during 2014 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	272	—	—	—
Other service expenses	—	—	(7,733)	(1,094)
Operating lease expense	—	—	(24,030)	—
Remuneration	—	(9,369)	—	(4,631)
R&D agreements	(26,740)	—	—	—
Finance costs	(49)	—	—	—
	(26,517)	(9,369)	(31,763)	(5,725)

(31) Balances and Transactions with Related Parties (Continued)

Group transactions with related parties during 2015 were as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	317	—	—	—
Other service expenses	(361)	—	(6,938)	(845)
Operating lease expense	—	—	(4,900)	—
Remuneration	—	(9,447)	—	(3,443)
R&D agreements	(18,400)	—	—	—
Purchase of Fixed Assets (note 9)	—	—	(276,457)	—
Sale of Fixed Assets (note 9)	—	—	12,000	—
Finance Income	1,916	—	—	—
	(16,528)	(9,447)	(276,295)	(4,288)

Group transactions with related parties during 2016 are as follows:

	Thousands of Euros			
	Associates	Key management personnel	Other related parties	Board of directors of the Company
Net sales	193	—	—	—
Purchases	(35,569)	—	—	—
Other service expenses	(7,591)	—	(5,325)	(905)
Operating lease expense	—	—	(5,281)	—
Remuneration	—	(10,287)	—	(3,668)
R&D agreements	(10,188)	—	—	—
Finance Income	1,946	—	—	—
	(51,209)	(10,287)	(10,606)	(4,573)

Every year the Group contributes 0.7% of its profits before tax to a non-profit organization.

"Other service expenses" include contributions to non-profit organizations totaling Euros 5,325 thousand in 2016 (Euros 5,224 thousand in 2015 and Euros 4,262 thousand in 2014).

During 2011 one of the Company's directors signed a three-year consulting services contract. The director will receive annual fees of US Dollars 1 million for these services and an additional bonus of US Dollars 2 million for complying with certain conditions. During 2014, this contract was renewed for an additional year for an amount of US Dollars 1 million. In 2015, this contract was extended for two years for an amount of US Dollars 1 million for each year.

Directors representing shareholders´ interests received remuneration of Euros 50 thousand in 2015 and Euros 100 thousand in 2014. There have not been any directors representing shareholders' interests in 2016.

(31) Balances and Transactions with Related Parties (Continued)

The Group has not extended any advances or loans to the members of the board of directors or key management personnel nor has it assumed any guarantee commitments on their behalf. It has also not assumed any pension or life insurance obligations on behalf of former or current members of the board of directors or key management personnel. In addition, certain Company directors and key management personnel have termination benefit commitments (see note 29 (c)).

(b) Conflicts of interest concerning the directors

The Company's directors and their related parties have not entered into any conflict of interest that should have been reported in accordance with article 229 of the revised Spanish Companies Act.

(32) Environmental Issues

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2015 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	3,455	(1,081)	2,374
Waste management	3,991	(1,011)	2,980
Reduction of electricity consumption	9,138	(1,712)	7,426
Reduction of water consumption	5,937	(1,868)	4,069
Energy	604	—	604
Other	162	(3)	159
	23,287	(5,675)	17,612

The most significant systems, equipment and fixtures for the protection and improvement of the environment at 31 December 2016 are as follows:

	Thousands of Euros		
Project	Cost	Accumulated depreciation	Net value
Waste water treatment	1,472	(1,072)	400
Waste management	3,492	(1,208)	2,284
Reduction of electricity consumption	10,195	(2,380)	7,815
Reduction of water consumption	7,067	(2,329)	4,738
Energy	1,296	—	1,296
Other	184	(7)	177
	23,706	(6,996)	16,710

Expenses incurred by the Group for protection and improvement of the environment during 2016 totalled approximately Euros 12.7 million (Euros 11.2 million during 2015 and Euros 9.9 million during 2014).

(32) Environmental Issues (Continued)

The Group considers that the environmental risks are adequately controlled by the procedures currently in place.

The Group has not received environmental grants during 2016, 2015 and 2014.

(33) Other information

Audit fees:

KPMG Auditores, S.L. has invoiced the following fees and expenses for professional services during 2016 and 2015:

	Thousands of Euros	
	31/12/2016	31/12/2015
Audit services	2,084	2,196
Audit-related	19	50
Other services	93	45
	2,196	2,291

"Audit services" include audit services subject to the Spanish Audit Law, amounting to Euros 541 thousand in 2016 (Euros 540 thousand in 2015).

"Audit services" detailed in the above table include the total fees for services rendered in 2016 and 2015, irrespective of the date of invoice.

Other entities affiliated to KPMG International have invoiced the Group for the following fees and expenses for professional services during 2016 and 2015:

	Thousands of Euros	
	31/12/2016	31/12/2015
Audit services	2,939	2,901
Tax fees	72	61
Other services	38	84
	3,049	3,046

(33) Other information (Continued)

Other audit firms have invoiced the Group for the following fees and expenses for professional services during 2016 and 2015:

	Thousands of Euros	
	31/12/2016	31/12/2015
Audit services	51	35
Audit-related	—	—
Tax fees	35	7
Other services	—	—
	86	42

(34) Events after the Reporting Period

- Hologic acquisition

On 14 December 2016 Grifols agreed to acquire Hologic's share of NAT (Nucleic Acid Testing) donor screening unit for US Dollar 1,850 million. The company has entered into an agreement to acquire Hologic's (Nasdaq: HOLX) interest in their existing joint-business under which Grifols owns all customer facing activities. The agreement encompasses the acquisition of the Hologic unit engaged in research, development and manufacture of assays and instruments based on NAT technology for transfusion and transplantation screening. NAT technology makes possible to detect the presence of infectious agents in blood and plasma donations, contributing to greater transfusion safety. Until now, based on the existing agreement with Hologic, Grifols is marketing the aforementioned assays and instruments worldwide.

The assets acquired comprise a plant in San Diego, CA (United States) as well as development rights, licenses to patents and access to product manufacturers.

The acquisition is structured through Grifols Diagnostic Solutions, Inc., a U.S. incorporated and wholly-owned subsidiary of Grifols, S.A.

Grifols consolidates itself as one of the only vertically integrated providers capable of offering comprehensive solutions to blood and plasma donation centers.

This acquisition strengthens cash flows and positively impacts the group's margins. The revenues of the Diagnostic Division will not change as a result of the acquisition due to the existing joint-business between Grifols and Hologic in place since 2014. Under the existing agreement, Grifols owns customer facing activities and records all revenues.

It is expected that this acquisition will strengthen the position of the Grifols Diagnostic Division in transfusion medicine and will increase significantly the profitability of Grifols Diagnostic Division having a direct impact on the group's EBITDA margin. By streamlining and integrating the NAT business, operational efficiency will be in terms of production, R&D, overheads and administrative expenses. In addition, Hologic will transfer the professionals in this area of activity to Grifols' workforce, which will increase by 175 employees.

(34) Events after the Reporting Period (Continued)

On 31 January 2017 the transaction has already been closed.

At the date of issue of these consolidated annual accounts the Group did not have all the necessary information to determine the definitive fair value of intangible assets, liabilities and contingent liabilities acquired in the business combination.

Details of the aggregate business combination cost, the provisional fair value of the net assets acquired and provisional goodwill at the acquisition date (or the amount by which the business combination cost exceeds the fair value of the net assets acquired) are provided below. The values shown in the table below should be considered provisional.

For practical purposes, for the present transaction, the exchange rate Euro / Dollar 1.0543 was used for all purposes.

	Thousands of Euros	Thousands of US Dollars
Cost of the business combination		
Payment in cash	1,769	1,865
Total business combination cost	1,769	1,865
Fair value of net assets acquired	30	32
Goodwill (excess of the cost of the business combination over the fair value of net assets acquired)	1,739	1,833

Provisional goodwill generated in the acquisition is attributed to the synergies, workforce and other expected benefits from the business combination of the assets and activities of the Group.

The expenses incurred in this transaction in 2016 amount to approximately Euros 5.1 million.

• Kedplasma acquisition

On 27 December 2016 Grifols has entered into an agreement to acquire six new Plasma Donor Centers to the company Kedplasma, LLC, with a purchase price of US Dollar 47 million, for which the group has advanced the sum of US Dollar 15 million at the year end.

The date of delivery of the Donor Centers shall be no later than 28 February 2017.

Access Biologic Acquisition

On 12 January 2017, the group has announced the acquisition of 49% of the voting rights in Access Biologicals LLC, a company based in San Diego, California, USA, for the amount of US Dollar 51 million. Grifols has entered into an option agreement to purchase the remaining 51% voting rights in five years, in 2022. Grifols has also signed a supply agreement to sell to Access Biologicals biological products not meant for human use.

The principal business activity of Access Biologicals is the collection and manufacturing of an extensive portfolio of biologicals products. Combined with closed-loop material sourcing, it provides

(34) Events after the Reporting Period (Continued)

critical support for various markets such as *in-vitro* diagnostic manufacturing, biopharmaceutical, cell culture and diagnostic research & development.

• Refinancing process

On 6 February 2017, Grifols has concluded the refinancing process of its financial debt for an amount of US Dollar 6,300 million, except for the US Dollar 1,000 million senior unsecured notes which will be refinanced shortly.

Grifols informs that Term Loan A ("TLA") amounts to US Dollar 3,300 million issued at LIBOR+175bps with a 6 year tenor and quasi-bullet amortizing structure. Likewise, Term Loan B ("TLB") amounts to US Dollar 3,000 million at LIBOR+225bps; in this case tenor is 8 years and bullet amortization.

With the refinancing of these senior loans, in addition to extending the tenor, the Company has reduced the margin by c.100bps.

The refinancing includes US Dollar 1,700 million devoted to the acquisition of Hologic's share of NAT donor screening unit that was closed last 31st January 2017.

APPENDIX I
GRIFOLS, S.A. AND SUBSIDIARIES
Information on Group Companies, Associates and others for the years ended 31 December 2016, 2015 and 2014
(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Fully Consolidated Companies										
Diagnostic Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Development and manufacture of diagnostic equipment, instruments and reagents.	—	100.000%	99.998%	0.002%	99.998%	0.002%
Instituto Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Industrial	Plasma fractioning and the manufacture of haemoderivative pharmaceutical products.	99.998%	0.002%	99.998%	0.002%	99.998%	0.002%
Grifols Worldwide Operations Spain, S.A (formerly Logister, S.A.)	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Services	Manufacture, sale and purchase, commercialisation and distribution of all types of computer products and materials.	—	100.000%	—	100.000%	99.970%	0.030%
Laboratorios Grifols, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1989	Industrial	Production of glass- and plastic-packaged parenteral solutions, parenteral and enteral nutrition products and blood extraction equipment and bags.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%
Biomat, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1991	Industrial	Analysis and certification of the quality of plasma used by Instituto Grifols, S.A. It also provides transfusion centres with plasma virus inactivation services (I.P.T.H).	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Grifols Engineering, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	2000	Industrial	Design and development of the Group's manufacturing installations and part of the equipment and machinery used at these premises. The company also renders engineering services to external companies.	99.950%	0.050%	99.950%	0.050%	99.950%	0.050%
Biomat USA, Inc.	2410 Lillyvale Avenue Los Angeles (California) United States	2002	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
Grifols Biologicals, Inc.	5555 Valley Boulevard Los Angeles (California) United States	2003	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
PlasmaCare, Inc. (merged with Biomat USA, Inc in 2015)	1128 Main Street, Suite 300 Cincinnati (Ohio) United States	2006	Industrial	Procuring human plasma.	—	—	—	—	—	100.000%
Grifols Australia Pty Ltd.	Unit 5/80 Fairbank Clayton South Victoria 3149 Australia	2009	Industrial	Distribution of pharmaceutical products and the development and manufacture of reagents for diagnostics.	100.000%	—	100.000%	—	100.000%	—
Medion Grifols Diagnostic AG	Bonnstrasse,9 3186 Düngingen Switzerland	2009	Industrial	Development and manufacturing activities in the area of biotechnology and diagnostics.	—	100.000%	80.000%	—	80.000%	—
Grifols Therapeutics, Inc.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Plasma fractioning and the production of haemoderivatives.	—	100.000%	—	100.000%	—	100.000%
Talecris Plasma Resources, Inc.	4101 Research Commons (Principal Address), 79 T.W. Alexander Drive, Research Triangle Park, North Carolina 277709, United States	2011	Industrial	Procuring human plasma.	—	100.000%	—	100.000%	—	100.000%
GRI-CEI, S/A Produtos para transfusao (merged with Grifols Brasil, Lda. in 2016)	Rua Umuarama, 263 Condominio Portal da Serra Vila Perneta CEP 83.325-000 Pinhais Paraná, Brazil	2012	Industrial	Production of bags for the extraction, separation, conservation and transfusion of blood components.	—	—	60.000%	—	60.000%	—
Grifols Worldwide Operations Limited	Grange Castle Business Park, Grange Castle , Clondalkin, Dublin 22, Ireland	2012	Industrial	Packaging, labelling, storage, distribution, manufacture and development of pharmaceutical products and rendering of financial services to Group companies.	100.000%	—	100.000%	—	100.000%	—
Progenika Biopharma, S.A.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	89.250%	56.150%	—	56.150%	—
Proteomika, S.L.U (merged with Progenika Biopharma, S.A. in 2015)	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	—	—	—	—	56.150%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Progenika Latina, S.A. de CV	Periferico Sur N° 4118 Int 8 Col. Jardines del Pedregal CP 01900 Alvaro Obregon DF Mexico	2013	Industrial	Development, production and commercialisation of biotechnological solutions.	—	89.250%	—	56.150%	—	56.150%
Progenika Inc.	Corporation Service Company, 2711 Centerville Road, Suite 400, Wilmington, DE 19808 United States	2013	Industrial	Development, production and commercialisation of genetic tools, diagnostic equipment and therapeutic systems and products for personalised medicine and the highest quality healthcare in general.	—	89.250%	—	56.150%	—	56.150%
Brainco Biopharma, S.L. (merged with Progenika Biopharma, S.A in 2016)	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Development of products for the treatment and diagnosis of psychiatric illnesses	—	—	—	28.423%	—	28.423%
Abyntek Biopharma, S.L.	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Research, development and transfer of biotechnological products and processes, as well as the commercialiation of products and services related to the biosciences.	—	80.370%	—	45.129%	—	43.763%
Asociación I+D Progenika	Parque Tecnológico de Vizcaya, Edificio 504 48160 Derio (Vizcaya) Spain	2013	Industrial	Coordination, representation, management and promotion of the common interests of associated companies, in addition to contributing to the development, growth and internationalisation of its associates and of the biosciences sector in the Basque Country.	—	89.250%	—	55.336%	—	56.150%
Grifols Diagnostics Solutions Inc (formerly G-C Diagnostics Corp.)	4560 Horton Street 94608 Emeryville, California United States	2013	Industrial	Manufacture and sale of blood testing products	100.000%	—	100.000%	—	100.000%	—
Grifols Worldwide Operations USA Inc.	13111 Temple Avenue, City of Industry, California 91746-1510 Estados Unidos	2014	Industrial	The manufacture, warehousing, and logistical support for biological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Asia Pacific Pte, Ltd	501 Orchard Road n°20-01 238880 Wheelock Place, Singapore	2003	Commercial	Distribution and sale of medical and pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols Movaco, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1987	Commercial	Distribution and sale of reagents, chemical products and other pharmaceutical specialities, and of medical and surgical materials, equipment and instruments for use by laboratories and health centres.	99.999%	0.001%	99.999%	0.001%	99.999%	0.001%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Portugal Productos Farmacéuticos e Hospitalares, Lda. .	Rua de Sao Sebastiao,2 Zona Industrial Cabra Figa 2635-448 Rio de Mouro Portugal	1988	Commercial	Import, export and commercialisation of pharmaceutical and hospital equipment and products, particularly Grifols products.	0.010%	99.990%	0.010%	99.990%	0.010%	99.990%
Grifols Chile, S.A.	Avda. Americo Vespucio, 2242 Comuna de Conchali Santiago de Chile Chile	1990	Commercial	Development of pharmaceutical businesses, which can involve the import, production, commercialisation and export of related products.	99.000%	—	99.000%	—	99.000%	—
Grifols USA, LLC.	2410 Lillyvale Avenue Los Angeles (California) Estados Unidos	1990	Commercial	Distribution and marketing of company products.	—	100.000%	—	100.000%	—	100.000%
Grifols Argentina, S.A.	Bartolomé Mitre 3690/3790, CPB1605BUT Munro Partido de Vicente Lopez Argentina	1991	Commercial	Clinical and biological research. Preparation of reagents and therapeutic and diet products. Manufacture and commercialisation of other pharmaceutical specialities.	95.010%	4.990%	95.010%	4.990%	95.010%	4.990%
Grifols s.r.o.	Calle Zitna,2 Prague Czech Republic	1992	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products, including human plasma.	100.000%	—	100.000%	—	100.000%	—
Grifols (Thailand) Ltd	191 Silom Complex Building, 21st Follor, Silom Road, Silom, Bangrak 10500 Bangkok Thailand	2003	Commercial	Import, export and distribution of pharmaceutical products.	—	48.000%	—	48.000%	—	48.000%
Grifols Malaysia Sdn Bhd	Level 18, The Gardens North Tower, Mid Valley City, Lingkaran Syed Putra 59200 Kuala Lumpur Malaysia	2003	Commercial	Distribution and sale of pharmaceutical products.	—	30.000%	—	30.000%	—	30.000%
Grifols International, S.A.	Polígono Levante Calle Can Guasch, s/n 08150 Parets del Vallès (Barcelona) Spain	1997	Commercial	Coordination of the marketing, sales and logistics for all the Group's subsidiaries operating in other countries.	99.998%	0.002%	99.998%	0.002%	—	100.000%
Grifols Italia S.p.A	Via Carducci, 62d 56010 Ghezzano Pisa, Italy	1997	Commercial	Purchase, sale and distribution of chemical-pharmaceutical products.	100.000%	—	100.000%	—	100.000%	—
Grifols UK Ltd.	Gregory Rowcliffe & Milners, 1 Bedford Row, London WC1R 4BZ United Kingdom	1997	Commercial	Distribution and sale of therapeutic and other pharmaceutical products, especially haemoderivatives.	100.000%	—	100.000%	—	100.000%	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Brasil, Lda.	Rua Umuarama, 263 Condominio Portal da Serra Vila Perneta CEP 83.325-000 Pinhais Paraná, Brazil	1998	Commercial	Import and export, preparation, distribution and sale of pharmaceutical and chemical products for laboratory and hospital use, and medical-surgical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols France, S.A.R.L.	Arteparc, Rue de la Belle du Canet, Bât. D, Route de la Côte d'Azur, 13590 Meyreuil France	1999	Commercial	Commercialisation of chemical and healthcare products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Polska Sp.z.o.o.	Grzybowska 87 street00-844 Warsaw, Poland	2003	Commercial	Distribution and sale of pharmaceutical, cosmetic and other products.	100.000%	—	100.000%	—	100.000%	—
Logística Grifols, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	2008	Commercial	Manufacture and commercialisation of pharmaceutical products for human and veterinary use.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols México, S.A. de C.V.	Calle Eugenio Cuzin, n° 909-913 Parque Industrial Belenes Norte 45150 Zapopán Jalisco, Mexico	1970	Commercial	Production, manufacture, adaptation, conditioning, sale and purchase, commissioning, representation and consignment of all kinds of pharmaceutical products and the acquisition of machinery, equipment, raw materials, tools, movable goods and property for the aforementioned purposes.	99.980%	0.020%	99.980%	0.020%	99.980%	0.020%
Medion Diagnostics GmbH	Lochamer Schlag, 12D 82166 Gräfelfing Germany	2009	Commercial	Distribution and sale of biotechnological and diagnostic products.	—	100.000%	—	80.000%	—	80.000%
Grifols Nordic, AB	Sveavägen 166 11346 Stockholm Sweden	2010	Commercial	Research and development, production and marketing of pharmaceutical products, medical devices and any other asset deriving from the aforementioned activities.	100.000%	—	100.000%	—	100.000%	—
Grifols Colombia, Ltda	Carrera 7 No. 71 52 Torre B piso 9 Bogotá. D.C. Colombia	2010	Commercial	Sale, commercialisation and distribution of medicines, pharmaceutical (including but not limited to haemoderivatives) and hospital products, medical devices, biomedical equipment, laboratory instruments and reagents for diagnosis and/or healthcare software.	99.000%	1.000%	99.000%	1.000%	99.000%	1.000%

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Deutschland GmbH	Lyoner Strasse 15, D-60528 Frankfurt am Main Germany	2011	Commercial	Procurement of the official permits and necessary approval for the production, commercialisation and distribution of products deriving from blood plasma, as well as the import, export, distribution and sale of reagents and chemical and pharmaceutical products, especially for laboratories and health centres and surgical and medical equipment and instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols Canada, Ltd.	5060 Spectrum Way, Suite 405 (Principal Address) Mississauga, Ontario L4W 5N5 Canada	2011	Commercial	Distribution and sale of biotechnological products.	—	100.000%	—	100.000%	—	100.000%
Grifols Pharmaceutical Technology (Shanghai) Co., Ltd. (formerly Grifols Pharmaceutical Consulting (Shanghai) Co., Ltd.)	Unit 901-902, Tower 2, No. 1539, West Nanjing Rd., Jing'an District, Shanghai 200040 China	2013	Commercial	Pharmaceutical consultancy services (except for diagnosis), technical and logistical consultancy services, business management and marketing consultancy services.	100.000%	—	100.000%	—	100.000%	—
Grifols Switzerland AG	Steinengraben, 5 40003 Basel Switzerland	2013	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devicesand diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols (H.K.), Limited	Units 1505-7 Bershire House, 25 Westlands Road Hong Kong	2014	Commercial	Distribution and sale of diagnostic products.	—	100.000%	—	100.000%	—	100.000%
Grifols Japan K.K.	Hilton Plaza West Office Tower, 19th floor. 2-2, Umeda 2-chome, Kita-ku Osaka-shi Japan	2014	Commercial	Research, development, import and export and commercialisation of pharmaceutical products, devices and diagnostic instruments.	100.000%	—	100.000%	—	100.000%	—
Grifols India Healthcare Private Ltd	Regus Business Centre Pvt.Ltd.,Level15,Dev Corpora, Plot No.463,Nr. Khajana East.Exp.Highway,Thane (W), Mumbai - 400604, Maharashtra India	2014	Commercial	Distribution and sale of pharmaceutical products.	99.990%	0.010%	99.990%	0.010%	99.990%	0.010%
Grifols Diagnostics Equipment Taiwan Limited	8F., No.367, Fuxing N. RD., Songshang Dist., Taipei City 10543, Taiwan	2016	Commercial	Distribution and sale of diagnostic products.	100.000%	—	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Grifols Viajes, S.A.	Can Guasch, 2 08150 Parets del Vallès Barcelona, Spain	1995	Services	Travel agency exclusively serving Group companies.	99.900%	0.100%	99.900%	0.100%	99.900%	0.100%
Squadron Reinsurance Designated Activity Company (formerly Squadron Reinsurance Ltd.)	The Metropolitan Building, 3rd Fl. James Joyce Street, Dublin Ireland	2003	Services	Reinsurance of Group companies' insurance policies.	—	100.000%	—	100.000%	—	100.000%
Arrahona Optimus, S.L. (merged with Grifols, S.A. in 2015)	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2008	Services	Development and construction of offices and business premises.	—	—	—	—	99.995%	0.005%
Grifols Shared Services North America, Inc. (formerly Grifols Inc.)	2410 Lillivale Avenue 90032 Los Angeles, California United States	2011	Services	Support services for the collection, manufacture, sale and distribution of plasma derivatives and related products.	100.000%	—	100.000%	—	100.000%	—
Gripdan Invest, S.L	Avenida Diagonal 477 Barcelona, Spain	2015	Services	Manufacturing buildings for rent	100.000%	—	100.000%	—	—	—
Gri-Cel, S.A.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2009	Research	Research and development in the field of regenerative medicine, awarding of research grants, subscription to collaboration agreements with entities and participation in projects in the area of regenerative medicine.	0.001%	99.999%	0.001%	99.999%	0.001%	99.999%
Araclon Biotech, S.L.	Paseo de Sagasta, 17 2° izqda. Zaragoza, Spain	2012	Research	Creation and commercialisation of a blood diagnosis kit for the detection of Alzheimer's and development of effective immunotherapy (vaccine) against this disease.	—	73.220%	—	70.830%	—	66.150%
VCN Bioscience, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2012	Research	Research and development of therapeutic approaches for tumours for which there is currently no effective treatment.	—	81.340%	—	68.010%	—	—
Grifols Innovation and New Technologies Limited	Grange Castle Business Park, Grange Castle , Clondalkin, Dublin 22, Ireland	2016	Research	Research and experimental development on biotechnology	—	100.000%	—	—	—	—
PBS Acquisition Corp.	2711 Centerville Road Suite 400, Wilmington, Delaware, New Castle County United States	2016	Services	Engage in any lawful act or activity for which corporations may be organized under the DGCL (Delaware Code)	—	100.000%	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

Name	Registered Offices	Acquisition / Incorporation date	Activity	Statutory Activity	31/12/2016 % shares		31/12/2015 % shares		31/12/2014 % shares	
					Direct	Indirect	Direct	Indirect	Direct	Indirect
Nanotherapix, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2010	Research	Development, validation and production of the technology required to implement the use of genetic and cellular therapy for the treatment of human and animal pathologies.	—	—	—	51.000%	—	51.000%
VCN Biosciences, S.L.	Avenida de la Generalitat 152 Sant Cugat del Valles (Barcelona) Spain	2012	Research	Research and development of therapeutic approaches for tumours for which there is currently no effective treatment.	—	—	—	—	—	49.450%
Aradigm Corporation	3929 Point Eden Way Hayward, California United States	2013	Research	Development and commercialisation of drugs delivered by inhalation for the prevention and treatment of severe respiratory diseases.	—	35.130%	35.000%	—	35.000%	—
TiGenix N.V.	Romeinse straat 12 bus 2, 3001 Leuven, Belgium	2013	Research	Research and development of therapies based on stem cells taken from adipose tissue.	—	16.130%	—	19.280%	—	21.300%
Mecwins, S.L.	Avenida Fernandos Casas Novoa, 37 Santiago de Compostela Spain	2013	Research	Research and production of nanotechnological, biotechnological and chemical solutions.	—	8.420%	—	8.420%	—	9.350%
Kiro Grifols S.L (formerly Kiro Robotics S.L)	Polígono Bainuetxe, 5, 2° planta, Aretxabaleta, Guipúzcoa Spain	2014	Research	Development of machines and equipment to automate and control key points of hospital processes, and hospital pharmacy processes.	50.000%	—	50.000%	—	50.000%	—
Alkahest, Inc.	3500 South DuPont Hwy, Dover, County of Kent United States	2015	Research	Development novel plasma-based products for the treatment of cognitive decline in aging and disorders of the central nervous system (CNS).	—	47.580%	—	47.580%	—	—
Albajuna Therapeutics, S.L	Hospital Germans Trias i Pujol, carretera de Canyet, s/n, Badalona Spain	2016	Research	Development and manufacture of therapeutic antibodies against HIV.	—	30.000%	—	—	—	—
Interstate Blood Bank, Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	49.190%	—	—	—	—
Bio Blood Components Inc.	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.972%	—	—	—	—
Plasma Biological Services, LLC	5700 Pleasantville Road Memphis, Tennessee United States	2016	Industrial	Procuring human plasma.	—	48.900%	—	—	—	—
Singulex, Inc.	4041 Forest Park Avenue St. Louis, Missouri United States	2016	Research	Development of the Single Molecule Counting (SMC™) technology for clinical diagnostic and scientific discovery.	—	20.000%	—	—	—	—

This appendix forms an integral part of note 2 to the consolidated annual accounts.

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Operating Segments for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Bioscience			Hospital			Diagnostic			Raw materials & others			Consolidated		
	2016	**2015**	**2014***	**2016**	**2015**	**2014***	**2016**	**2015**	**2014***	**2016**	**2015**	**2014***	**2016**	**2015**	**2014***
Revenues from external customers	3,228,275	3,032,111	2,513,510	98,583	96,245	94,800	663,983	691,452	620,022	58,989	114,755	127,052	4,049,830	3,934,563	3,355,384
Total operating income	**3,228,275**	**3,032,111**	**2,513,510**	**98,583**	**96,245**	**94,800**	**663,983**	**691,452**	**620,022**	**58,989**	**114,755**	**127,052**	**4,049,830**	**3,934,563**	**3,355,384**
Profit/(Loss) for the segment	**948,598**	**907,847**	**835,171**	**(10,149)**	**(4,299)**	**(4,256)**	**84,984**	**84,147**	**86,258**	**55,764**	**88,408**	**106,446**	**1,079,197**	**1,076,103**	**1,023,619**
Unallocated expenses													(139,789)	(105,734)	(165,930)
Operating profit													**939,408**	**970,369**	**857,689**
Finance result													**(233,589)**	**(271,839)**	**(261,427)**
Share of profit/(loss) of equity accounted investee	(9,396)	—	—	(5,611)	—	—		—	—	**21,940**	**(8,280)**	**(6,582)**	**6,933**	**(8,280)**	**(6,582)**
Income tax expense													(168,209)	(158,809)	(122,597)
Profit for the year after tax													**544,543**	**531,441**	**467,083**
Segment assets	**6,512,958**	**6,074,971**	**5,013,457**	**86,590**	**91,877**	**94,971**	**1,909,447**	**1,794,389**	**1,628,232**	**8,378**	**1,321**	**794**	**8,517,373**	**7,962,558**	**6,737,454**
Equity accounted investments	104,996	—	—	13,888	—	—	43,330	—	—	39,132	76,728	54,296	201,346	76,728	54,296
Unallocated assets													1,411,053	1,562,429	1,657,999
Total assets													**10,129,772**	**9,601,715**	**8,449,749**
Segment liabilities	**411,604**	**387,086**	**256,710**	**8,415**	**3,159**	**9,429**	**186,389**	**192,730**	**233,165**	—	—	—	**606,408**	**582,975**	**499,304**
Unallocated liabilities	—	—	—	—	—	—	—	—	—	—	—	—	5,795,386	5,717,351	5,287,557
Total liabilities													**6,401,794**	**6,300,326**	**5,786,861**
Other information:															
Amortisation and depreciation allocated	152,821	137,870	95,725	5,915	5,710	5,273	32,180	31,875	24,768	3,445	6,946	45,002	**194,361**	**182,401**	**170,768**
Amortisation and depreciation unallocated	—	—	—	—	—	—	—	—	—	—	—	—	**7,508**	**7,355**	**18,704**
Expenses that do not requirecash payments allocated	16,219	627	4,053	306	108	(74)	(2,001)	4,630	(3,578)	(32,534)	—	—	**(18,010)**	**5,365**	**401**
Expenses that do not require cash payments unallocated	—	—	—	—	—	—	—	—	—	—	—	—	**4,608**	**4,794**	**(6,215)**
Additions for the year of property, plant & equipment and intangible assets allocated	197,741	421,020	188,698	9,193	7,972	14,241	89,760	68,740	46,272	13,397	—	—	**310,091**	**497,732**	**249,211**
Additions for the year of property, plant & equipment and intangible assets unallocated	—	—	—	—	—	—	—	—	—	—	—	—	**12,011**	**79,082**	**42,981**

* As a result of the acquisitions made and the related changes in the organizational structure due to the integration process, the Group reviewed the allocation of costs to the between segments, which lead to an increase of the portion of allocated costs. The comparative figures for the year 2014 were restated accordingly, resulting on a reduction of the portion of unallocated costs compared to the previous presentation of Euro 154 million. As a result of changes to systems, the segment information relating to 2014 is comparable to the 2016 and 2015 segment figures included in these consolidated annual accounts.

This appendix forms an integral part of note 6 to the consolidated annual accounts.

APPENDIX II
GRIFOLS, S.A. AND SUBSIDIARIES

Reporting by geographical area
for the years ended 31 December 2016, 2015 and 2014

(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Spain			Rest of European Union			USA + Canada			Rest of World			Subtotal			Raw material & others		Consolidated			
	2016	2015	2014	2016	2015	2014	2016	2015	2014	2016	2015	2014	2016	2015	2014	2016	2015	2014	2016	2015	2014
Net Revenue	**217,497**	**207,641**	**214,558**	**422,752**	**455,276**	**448,244**	**2,663,197**	**2,505,791**	**2,042,700**	**687,395**	**651,100**	**522,830**	**3,990,841**	**3,819,808**	**3,228,332**	**58,989**	**114,755**	**127,052**	**4,049,830**	**3,934,563**	**3,355,384**
Assets by geographical area	**847,467**	**719,557**	**689,220**	**2,466,922**	**2,406,847**	**1,888,235**	**6,527,415**	**6,175,558**	**5,542,660**	**279,590**	**298,432**	**328,840**	**10,121,394**	**9,600,394**	**8,448,955**	**8,378**	**1,321**	**794**	**10,129,772**	**9,601,715**	**8,449,749**
Other information:																					
Additions for the year of property, plant & equipment and intangible assets	73,365	113,652	53,223	39,603	51,943	69,366	190,358	400,065	160,195	18,776	11,154	9,408	322,102	576,814	292,192	—	—	—	**322,102**	**576,814**	**292,192**

This appendix forms an integral part of note 6 to the consolidated annual accounts.

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2015	Additions	Transfers	Disposals	Translation differences	Balances at 31/12/2016
Development costs	112,688	29,126	—	(79)	958	142,693
Concessions, patents, licenses brands & similar	59,249	—	—	—	1,222	60,471
Computer software	144,976	18,919	1,460	(420)	3,688	168,623
Currently marketed products	1,126,024	—	—	—	36,180	1,162,204
Other intangible assets	134,068	10,469	—	(651)	4,796	148,682
Total cost of intangible assets	1,577,005	58,514	1,460	(1,150)	46,844	1,682,673
Accum. amort. of development costs	(67,551)	(4,473)	—	—	(49)	(72,073)
Accum. amort of concessions, patents, licenses, brands & similar	(23,957)	(806)	—	—	(231)	(24,994)
Accum. amort. of computer software	(83,197)	(15,136)	(99)	419	(1,914)	(99,927)
Accum. amort. of currently marketed products	(175,135)	(38,441)	—	—	(7,412)	(220,988)
Accum. amort. of other intangible assets	(65,627)	(2,117)	—	544	(2,189)	(69,389)
Total accum. amort intangible assets	(415,467)	(60,973)	(99)	963	(11,795)	(487,371)
Impairment of other intangible assets	34	—	—	(34)	—	—
Carrying amount of intangible assets	**1,161,572**	**(2,459)**	**1,361**	**(221)**	**35,049**	**1,195,302**

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX III
GRIFOLS, S.A. AND SUBSIDIARIES

Changes in Other Intangible Assets
for the year ended
31 December 2015
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2014	Additions	Transfers	Disposals	Translation differences	Balances at 31/12/2015
Development costs	108,029	5,066	2	(626)	217	112,688
Concessions, patents, licenses brands & similar	55,994	12	—	(1,258)	4,501	59,249
Computer software	116,992	20,285	371	(1,167)	8,495	144,976
Currently marketed products	1,012,178	—	—	—	113,846	1,126,024
Other intangible assets	103,797	19,070	—	(943)	12,144	134,068
Total cost of intangible assets	1,396,990	44,433	373	(3,994)	139,203	1,577,005
Accum. amort. of development costs	(62,767)	(5,120)	—	484	(148)	(67,551)
Accum. amort of concessions, patents, licenses, brands & similar	(23,144)	(924)	—	1,099	(988)	(23,957)
Accum. amort. of computer software	(68,303)	(11,864)	137	991	(4,158)	(83,197)
Accum. amort. of currently marketed products	(122,416)	(38,076)	—	—	(14,643)	(175,135)
Accum. amort. of other intangible assets	(52,016)	(7,561)	—	—	(6,050)	(65,627)
Total accum. amort intangible assets	(328,646)	(63,545)	137	2,574	(25,987)	(415,467)
Impairment of other intangible assets	17	17	—	—	—	34
Carrying amount of intangible assets	**1,068,361**	**(19,095)**	**510**	**(1,420)**	**113,216**	**1,161,572**

This appendix forms an integral part of note 8 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended
31 December 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2015	Additions	Transfers	Disposals	Translation differences	Balances at 31/12/2016
Cost:						
Land and buildings	613,476	12,993	44,060	(780)	18,107	687,856
Plant and machinery	1,431,030	87,536	116,724	(19,515)	40,062	1,655,837
Under construction	263,610	163,059	(162,292)	—	10,626	275,003
	2,308,116	263,588	(1,508)	(20,295)	68,795	2,618,696
Accumulated depreciation:						
Buildings	(44,057)	(13,777)	(2)	178	(1,718)	(59,376)
Plant and machinery	(616,369)	(127,119)	149	13,605	(16,534)	(746,268)
	(660,426)	(140,896)	147	13,783	(18,252)	(805,644)
Impairment of other property, plant and equipment	(3,288)	147	—	—	(59)	(3,200)
Carrying amount	**1,644,402**	**122,839**	**(1,361)**	**(6,512)**	**50,484**	**1,809,852**

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX IV
GRIFOLS, S.A. AND SUBSIDIARIES

Movement in Property, Plant and Equipment
for the year ended
31 December 2015
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Balances at 31/12/2014	Additions	Business combination	Transfers	Disposals	Translation differences	Balances at 31/12/2015
Cost:							
Land and buildings . .	305,268	228,802	—	55,604	(12,279)	36,081	613,476
Plant and machinery .	1,150,832	146,228	23	65,308	(19,918)	88,557	1,431,030
Under construction . .	208,534	157,352	—	(121,669)	(100)	19,493	263,610
	1,664,634	532,382	23	(757)	(32,297)	144,131	2,308,116
Accumulated depreciation:							
Buildings	(31,096)	(10,477)	—	—	316	(2,800)	(44,057)
Plant and machinery .	(482,610)	(115,733)	(7)	247	12,373	(30,639)	(616,369)
	(513,706)	(126,210)	(7)	247	12,689	(33,439)	(660,426)
Impairment of other property, plant and equipment	(3,146)	(90)	—	—	—	(52)	(3,288)
Carrying amount	**1,147,782**	**406,082**	**16**	**(510)**	**(19,608)**	**110,640**	**1,644,402**
			(note 3 (a))				

This appendix forms an integral part of note 9 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2016
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2016:	
Projected profits net of taxes until 31/12/2016	319,133
Less, charge required to legal reserve	—
Estimated profits distributable for 2016	319,133
Interim dividend distributed	122,908
Forecast cash for the period 07 December 2016 to 07 December 2017:	
Cash balances at 07 December 2016	5,521
Projected amounts collected	497,058
Projected payments, including interim dividend	471,686
Projected cash balances at 07 December 2017	30,893

This appendix forms an integral part of note 15 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2015
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2015:	
Projected profits net of taxes until 31/12/2015	250,687
Less, charge required to legal reserve	—
Estimated profits distributable for 2015	250,687
Interim dividend distributed	119,615
Forecast cash for the period 23 October 2015 to 23 October 2016:	
Cash balances at 23 October 2015	5,748
Projected amounts collected	418,467
Projected payments, including interim dividend	368,821
Projected cash balances at 23 October 2016	55,394

This appendix forms an integral part of note 15 to the consolidated annual accounts.

APPENDIX V
GRIFOLS, S.A. AND SUBSIDIARIES

Statement of Liquidity for Distribution of Interim Dividend 2014
(Expressed in thousands of Euros)

(Free translation from the original in Spanish. In the event of discrepancy, the Spanish-language version prevails)

	Thousands of Euros
Forecast profits distributable for 2014:	
Projected profits net of taxes until 31/12/2014	211,556
Less, charge required to legal reserve	0
Estimated profits distributable for 2014	211,556
Interim dividend distributed	85,944
Forecast cash for the period 20 October 2014 to 20 October 2015:	
Cash balances at 20 October 2014	67,048
Projected amounts collected	508,971
Projected payments, including interim dividend	383,137
Projected cash balances at 20 October 2015	192,882

This appendix forms an integral part of note 15 to the consolidated annual accounts.

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€905,000,000 1.625% Senior Secured Notes due 2025
€770,000,000 2.250% Senior Secured Notes due 2027

GRIFOLS

1.625% Senior Secured Notes due 2025
2.250% Senior Secured Notes due 2027

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HSBC

BBVA

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November 15, 2019

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