

Management Report

02

Structure and Management of the Group

Group Legal Structure

Sartorius Stedim Biotech is a globally operating company with subsidiaries in more than 20 countries and more than 5,600 employees worldwide. The parent company of the Sartorius Stedim Biotech Group is Sartorius Stedim Biotech S.A., headquartered in Aubagne, France.

Sartorius Stedim Biotech S.A. is listed on the Euronext stock exchange in Paris. Approximately 74% of the share capital and around 85% of the voting rights of Sartorius Stedim Biotech S.A. are held by Sartorius AG.

Sartorius AG is a leading international bioprocess and laboratory equipment and technology provider headquartered in Göttingen, Germany. It is listed on the German Stock Exchange and operates two divisions: the bioprocess business as a subgroup under its parent corporation Sartorius Stedim Biotech S.A. and the laboratory business as a further subgroup.

The consolidated financial statements of the Sartorius Stedim Biotech Group include Sartorius Stedim Biotech S.A. and all affiliates in which Sartorius Stedim Biotech S.A. has a controlling interest pursuant to IFRS 10.

Organization and Management of the Group

The Sartorius Stedim Biotech Group is largely organized by function on a worldwide basis. Accordingly, the respective management responsibilities are performed along the company's core functions across all sites and regions.

This global functional organization forms an effective platform for central strategic control and for fast, efficient collaboration and execution within the Group. It enables the company to realize its total solutions provider strategy and position itself effectively in respect of global customers.

The Board of Directors of Sartorius Stedim Biotech S.A. is composed of seven members, one executive director and six non-executive directors.

Implementing the Group's various strategies and initiatives at the local level is the responsibility of the national affiliates. The management bodies of the local companies run their organizations in accordance with applicable statutory provisions, articles of association and rules of procedure and in keeping with the principles of corporate governance that apply throughout the Sartorius Stedim Biotech Group worldwide. Please see details of the Board of Directors in the section "Corporate Governance."

Financial Controlling and Key Performance Indicators

The Sartorius Stedim Biotech Group is managed using a number of key performance indicators, which are also decisive for determination of the variable remuneration component for the Executive Committee and managers.

The key management parameter that Sartorius Stedim Biotech uses to measure the development of its size is currency-adjusted growth of sales revenue.

The key performance measure for profitability is EBITDA adjusted for extraordinary items, i.e. underlying EBITDA, and the corresponding margin. For a definition of this term and more information on its presentation, see the Glossary on page 182.

Regarding the debt capacity of the Sartorius Stedim Biotech Group, a further key indicator is the ratio of net debt to underlying EBITDA for the last twelve months.

Moreover, the capex ratio, i.e. capital expenditures relative to sales revenue, represents a key control parameter.

The following financial and non-financial indicators are also reported on a regular basis:

- Order intake
- Underlying net profit | Earnings per share
- Net profit | Earnings per share
- Equity ratio
- Net working capital
- Net cash flow from operating activities
- Number of employees

The annual financial forecast published at the beginning of a fiscal year for the Group generally refers to the development of sales revenue and of underlying EBITDA margin. The expected capex ratio, as well as a directional forecast for the ratio of net debt to underlying EBITDA, is also indicated for the Group.

Business Model, Strategy and Goals

Market and Strategic Positioning

As a leading partner of the biopharmaceutical industry, we help our customers to develop their production processes and manufacture medications more efficiently. Our objective is to propel science forward and contribute toward enabling more people to have access to healthcare.

We are a leading player on this attractive market, which is characterized by strong growth momentum and long-term trends. Primary growth drivers are a growing world population and an increase in age-related diseases in industrialized countries. In addition, rising incomes in emerging countries are leading to improved access to healthcare and rising demand for medications. Medical advances are also driving the ongoing development and approval of new biopharmaceuticals as well as of emerging biosimilars, which are highly similar to established biologics already licensed, and account for a share of the biopharma market that is currently still small, but fast-growing. As a result of these factors, the volumes of biotech medications are steadily increasing and so is the demand for the appropriate production technologies. This market is largely independent of business cycles.

The maturity and intensity of competition in this still comparably young biopharmaceutical industry are successively increasing. In addition to achieving scientific success, our customers will find it more important, in view of mounting cost pressure on healthcare systems, to increase the efficiency of their research, development and manufacturing processes. We help them meet this challenge by further developing our product portfolio. One of the decisive success factors of Sartorius Stedim Biotech is to use technology in order to differentiate ourselves from our competitors. Our innovative power rests on three pillars: our own specialized product development, the integration of innovations via acquisitions, and alliances with partners in complementary fields.

Another competitive advantage of Sartorius Stedim Biotech is its broad understanding of applications, which is based on its clear focus on the sector. We are thoroughly familiar with our customers' entire added-value chains, especially the interactivity of the systems in these chains. All this makes us a strategic partner of these customers who drive forward innovations in bioprocess technology.

Products & Services

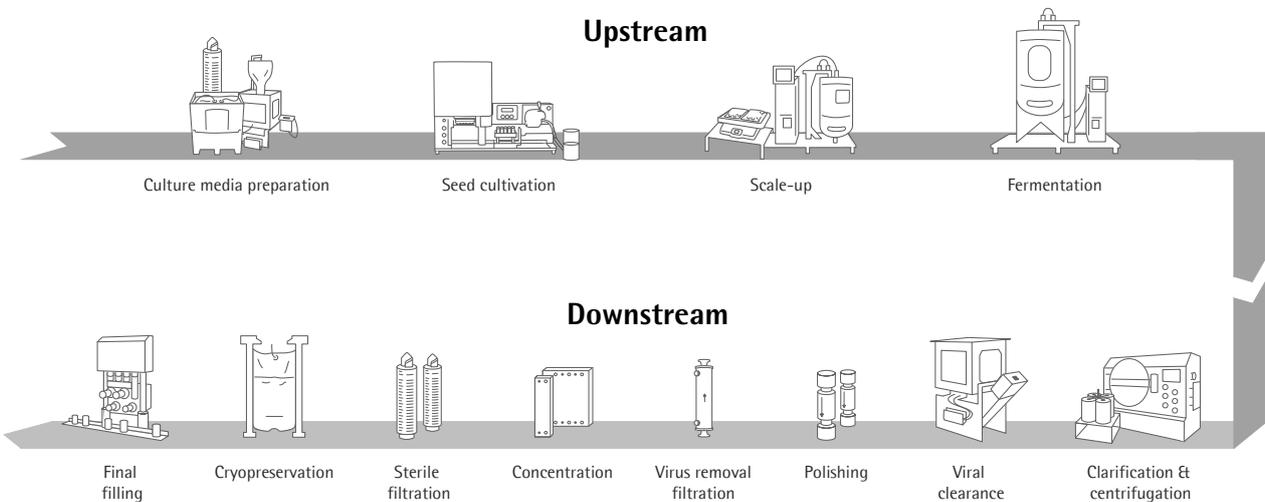
We are offering a broad portfolio of products that focuses on all major steps in the manufacture of a biopharmaceutical, as well as in process development as prerequisite procedures. Our technologies cover, inter alia, cell line technologies, cell culture media, bioreactors, and a wide range of products for separation, purification and concentration of biological intermediates and finished products, as well as solutions for their storage and transportation. Sartorius Stedim Biotech also offers data analytics software for modeling and optimizing processes of biopharmaceutical development and production. In its core technologies, the company has leading market positions with high double-digit market shares.

The breadth of our product portfolio sets us apart from our competitors. We provide customers with an entire production unit from a single source, as well as assist with preceding project planning, process integration and subsequent validation.

As an innovation leader, Sartorius Stedim Biotech was moreover one of the first biopharmaceutical suppliers to specialize in single-use technologies, which account for approximately three-quarters of the Group's sales revenue. Due to their cost advantages and their greater flexibility and safety compared with reusable technologies, the pharmaceutical industry is increasingly relying on single-use products. Particularly in pre-commercial production processes, single-use products have almost completely

supplanted classic stainless steel components. Industry observers believe that market penetration is likely to continue as commercial production also increasingly moves toward single-use products. As a result, we are generating a large share of sales from repeat business. The high approval requirements placed on our customers' products are also contributing to this growth. Because our customers' production processes must be validated by the health authorities responsible, the technological components initially used can be replaced only at considerable expense once they have been approved. The manufacturers of medications are therefore closely tied to the suppliers for the life cycle of a medication. Beyond this, our broad and stable customer base that we address through our specialized sales force directly for the most part also contributes to this favorable risk profile.

The strong strategic positioning of Sartorius Stedim Biotech and the above-average expansion of the sector are a good foundation for profitable growth in the future as well. Beyond realizing our organic development potential, we also aim to further expand the portfolio through complementary acquisitions and alliances.



Sartorius Stedim Biotech 2020 and 2025 Strategies

In 2011, Sartorius Stedim Biotech presented its strategy and targets for profitable growth up to 2020 according to which sales revenue is projected to increase in a range of around €1.5 to €1.6 billion with an underlying EBITDA margin of about 29% to 30%. At a Capital Markets Day in February of the reporting year, management extended its time horizon, introducing its strategy and long-term targets up to 2025.

While the targets for 2020 still continue to apply unchanged, Sartorius Stedim Biotech plans to increase its revenue in the period of 2020 to 2025 to around €2.8 billion, given the high market dynamics and the company's strong strategic positioning. The underlying EBITDA margin is forecasted to increase to around 30%.

In these projections, management takes into account that any future acquisitions in the Group would initially be margin dilutive and that no significant changes in key exchange rates would occur.

These targets are being implemented by various growth initiatives with the following focal points:

Expansion of the Product Portfolio

Sartorius Stedim Biotech offers a broad product portfolio that is continuously expanded in line with the value-added chain of the biopharmaceutical industry. Aside from our own research and development activities and strategic partnerships, acquisitions that are complementary to or extend our strengths appropriately will remain part of our strategy. We see opportunities in digital networking of products, for example, in the integration of software solutions for bioprocess production control, among others. Expansion into adjacent applications, such as regenerative medicine, is also conceivable. At the focus of our efforts will be products that offer solutions to the challenges our customers face and that make our offering even more attractive from the customers' perspective.

Regional Growth Initiatives

North America and Asia are the key focal areas of our regional growth strategy.

North America is the world's largest market for bioprocess equipment. Yet because it is home to our main competitors, Sartorius Stedim Biotech has lower market share in this region than in Europe and Asia. Accordingly, the company is striving to gain additional market share, primarily by strengthening its sales and service capacities.

A further strategic focus is on China. This market offers sizable growth potential owing to rising private and public healthcare expenditures and the rapid development of regional biopharmaceutical plants. To benefit from the dynamic development of this market, Sartorius Stedim Biotech has already been investing heavily in its sales infrastructure and plans to expand production capacity levels there over the medium term.

Optimization of Work Processes

Sufficient production capacity and a powerful supply chain are an essential foundation of future growth. For this reason, in recent years Sartorius Stedim Biotech has substantially expanded its capacities for membranes, filters and single-use bags at various Group sites. Beyond this, a new ERP system based on Group-wide standardized business processes was introduced, the implementation of which is due to be completed in 2019.

Following these significant infrastructural expansions, our focus is increasingly shifting to optimization of our processes. Thus, we are driving forward digitalization and process automation in all parts of the company to further enhance the performance power of our supply chain and our customer contact interfaces. This also includes extending our activities in the areas of e-commerce, digital marketing and analytics.

Sector Conditions

Sartorius Stedim Biotech serves customers mainly in the biopharmaceutical industry, which makes its business particularly sensitive to the development of this industry.

Strong Growth in the Biopharmaceutical Market

According to estimates from several market observers, the global pharmaceutical market showed a positive development once again in 2018, with an increase of approximately 4% to 5%. Within the pharmaceutical market, the segment for medications and vaccinations manufactured using biotech methods has grown faster than the rest of the market for many years now. In 2018, the biopharmaceutical market was estimated at a volume of €217 billion, an increase of approximately 8% to 9% over the previous year. The steadily growing significance and acceptance of biopharmaceutical drugs is reflected in its increasing share of the sales revenue in the global pharmaceutical market and the development activities of the pharmaceutical industry. For example, biopharmaceutical compounds account for more than 40% of the R&D pipeline.

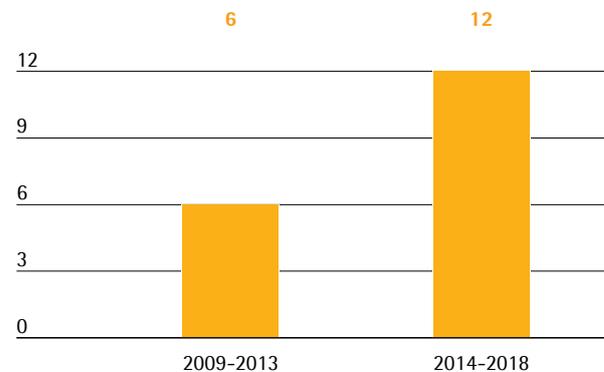
It is estimated that nearly €13 billion in sales were generated in 2018 with products and technologies for the manufacture of biopharmaceuticals. In contrast to its moderate growth in 2017, the supplier industry considerably increased sales in the year under review. There was once again a dynamic rise in demand in emerging countries, especially in China and India, where many commercial biopharmaceutical production facilities have opened in recent years to meet domestic demand. But there was also considerable investment in the United States and Europe, where the highest bioreactor capacities are located.

Market growth fundamentally depends more on medium- to long-term trends than on short-term economic developments. The major growth driver is the increasing demand worldwide for medications. In addition, the approval and market launch of new biopharmaceuticals boosts growth. In the year under review, the U.S. Food and Drug Administration (FDA), approved a record 17 biopharmaceuticals. A growing number of active pharmaceutical ingredients (APIs) manufactured using biotech production methods is being approved for the treatment of rare illnesses that have been untreatable so far. There has been recent progress in cell and gene therapies: the United States and Europe have now granted market approval to three therapies. A growing number of approved biopharmaceuticals as well as an increasing variety of

therapy types and API classes coupled with growing demand for medications are the main drivers for the worldwide increase in production capacities for biopharmaceuticals.

Biosimilars, or generic versions of biologics similar to originally patented medications, are playing an increasingly important role in the biotechnology market. Although sales volume was comparatively low at an estimated €6 billion in 2018, the market is expected to generate an average annual growth rate of around 30% until 2022. Through the approval and market launch of new biosimilars, further progress was made in the reporting period. The biosimilars market is projected to continue growing in coming years due to the expiration of patents for a number of high-margin biopharmaceuticals. In addition, the regulatory, patent law-related and marketing challenges and hurdles that have hindered faster market penetration of biosimilars to date are likely to decrease gradually.

Average Number of New Approvals of Biotech Medications in the USA per Year



Single-Use Systems for Biopharmaceutical Production Continue to Gain Importance

Biotech production methods are much more complex and cost-intensive than traditional methods for producing medications. Consequently, manufacturers and suppliers are continually looking to develop more efficient technologies. Single-use products play a decisive role in this effort: They require significantly less capital expenditure, reduce costs for cleaning and validation and minimize downtime. They also offer greater flexibility in production and help accelerate time to market.

Owing to these advantages, single-use technologies are already an established part of many process steps. Single-use systems are primarily employed in pre-commercial development activities and production phases and in small-batch manufacturing. It can be expected that single-use technologies will become increasingly popular for the production of high-volume commercial quantities. This is particularly relevant to the production of biotech drugs, whose clinical development takes place in single-use systems. Sartorius offers the sector's most extensive portfolio of single-use technologies, with scalable products for every step of manufacturing. The company is also actively helping the biopharmaceutical industry convert to these technologies in the production of medications.

Moderate Growth in the Global Laboratory Market

According to estimates by the market research firm Frost & Sullivan, the global laboratory market grew by approximately 3.6% to €39 billion in the reporting year. Following a lackluster first quarter, budget increases for academic and public research institutes during 2018 led to rising demand. In addition, investing activities in the private sector remained stable due to the positive economic situation.

While Europe saw an increase of 3.1%, the United States, the largest market for laboratory products, recorded growth of 3.3%. Significant growth was once again reported in Asian countries, such as China and India, in which the laboratory market enjoyed an above-average expansion of 7.5% (China) and 8.5% (India).

Competition

The primary means by which companies in the biotechnology market differentiate themselves from competitors are innovative process and the quality and performance of their products. The biotechnology sector is constantly discovering new areas of application and expects suppliers to be equally fast-moving and creative in developing new equipment for the manufacture of biotech products. New suppliers, in particular, seek to capitalize on the opportunities inherent in this environment to gain a foothold in the market with carefully targeted niche products. The more established suppliers, meanwhile, are expanding their product range continuously.

We generate around 90% of our sales revenue from validated processes in which replacing products during the production cycle is very expensive, so we receive a high proportion of follow-up and repeat business. The

particular strength of Sartorius Stedim Biotech lies in its integrated process solutions: we offer the broadest range in the industry, from drug discovery and development in the lab to commercial manufacture of the final product. Our strategic focus on single-use products gives us a further edge over the competition. Sartorius Stedim Biotech has leading positions on the global market for bioprocess filtration, fermentation, cell cultivation, fluid management and membrane chromatography.

Most of our competitors are multinationals based in the USA. Certain business units of Merck KGaA, Danaher Corp., General Electric Company and Thermo Fisher Scientific Inc. are among our main rivals in the process area; Thermo Fisher and Merck are key players in the laboratory field. We also face competition from smaller companies in individual segments.

Sources: IQVIA Institute: 2018 and Beyond: Outlook and Turning Points, March 2018; Evaluate Pharma: World Preview 2018, Outlook to 2024, June 2018; BioPlan: 15th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2018; Frost & Sullivan: 2018 Mid-year Report: Forecast and Analysis of the Global Market for Laboratory Products, May 2018; BCC Research: Biosimilars: Global Markets, March 2018; Daedal Research: Global Biologics Market: Size, Trends & Forecasts, February 2018; www.fda.gov

Group Business Development

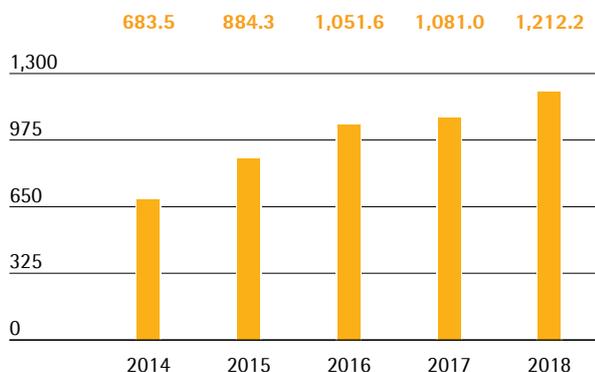
Sales Revenue and Order Intake

In fiscal 2018, Sartorius Stedim Biotech continued on the growth track, with double-digit gains in sales revenue and order intake. The dynamic growth was based on its very competitive product portfolio and fueled by strong demand across all product categories and geographies. Hence, after the previous year's comparably moderate performance, momentum considerably picked up in the reporting period. Group's sales revenue rose in constant currencies by 13.7% to €1,212.2 million (reported: +12.1%). Sartorius Stedim Biotech therefore reached the upper end of its guidance which had been revised upwards at mid-year 2018 to 11% to 14%. Most of this increase was organic, whereas the acquisition of the software company Umetrics contributed around 0.5 percentage points of non-organic growth.

Order intake outperformed sales, posting an increase of 14.2% in constant currencies to €1,307.3 million. On a reported basis, this gain was 12.5%.

Sales Revenue 2014 to 2018

in € million



Sales Revenue and Order Intake

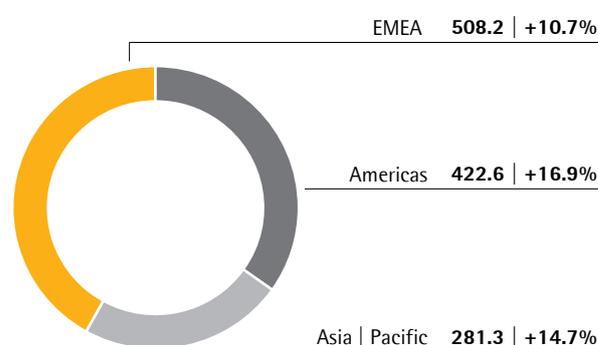
in € millions	2018	2017	in % reported	in % const. fx
Sales Revenue	1,212.2	1,081.0	12.1	13.7
Order Intake	1,307.3	1,162.3	12.5	14.2

Geographically, all regions contributed to consolidated growth. EMEA, the region generating the highest revenue for the company with around 42% of its total sales, recorded a gain of 10.7% to €508.2 million against a moderate prior-year base. In the Americas region, sales increased dynamically by 16.9% to

422.6 million after a decline in the previous year, now representing around 35% of revenue. The Asia | Pacific region, which accounted for around 23% of the Group's sales, also grew significantly after an already strong performance in 2017: Sales rose in the clear double-digits by 14.7% to €281.3 million. All growth rates are in constant currencies unless otherwise stated.

Sales Revenue and Growth¹⁾ by Region²⁾

in € millions unless otherwise specified



¹⁾ In constant currencies

²⁾ Acc. to customers' location

Development of Costs and Earnings

In the reporting year, the cost of sales stood at €582.6million. In comparison with sales revenue growth of 12.1%, the cost of sales increased underproportionately by 10.7%, which was due to product mix effects and economies of scale. The cost of sales ratio was 48.1% relative to 48.7% a year ago.

Selling and distribution costs rose by 10.2% to €215.2million so the ratio of these costs to sales revenue decreased from 18.1% in the previous year to 17.8%.

Expenses for research and development rose year over year by 13.9% to €60.6million. The ratio of R&D expenses to sales revenue was 5.0%, slightly above the prior-year level of 4.9%.

Concerning general administrative expenses, Sartorius Stedim Biotech reported an increase of 8.6% to €67.0million. In relation to sales revenue, general administrative expenses decreased from 5.7% in the previous year to 5.5% in the reporting year.

In fiscal 2018, the balance of other operating income and expenses significantly improved to €13.5million relative to -€23.0million a year earlier. This year-over-year change was mainly driven by significant increases in extraordinary items. In the previous year, this balance totaled -€22.6million and was due to various corporate projects, expenses related to the most recent acquisitions and to the consequences of Hurricane Maria. In the reporting year, modification of the contract with the life science company Lonza on the exclusive distribution and marketing rights for specific cell culture media and buffers resulted in income of €35.2million so that extraordinary items totaled €12.7million.

In the year under review, the Group's EBIT increased strongly by 35.4% to €300.2million, especially due to higher sales revenue and to the improvement mentioned above in the other operating income and expenses. As a consequence and despite slightly higher depreciation, the Group's EBIT margin rose from 20.5% a year earlier to 24.8%.

The financial result was -€15.7million in 2018 relative to -€1.1million in 2017. This was essentially attributable to valuation effects related to foreign currency liabilities and hedging instruments.

In the reporting year, tax expenses of €74.6million were higher than the prior-year total of €56.8million. The company's tax rate was 26.2% compared to 25.8% in the year before.

In the reporting year, net profit attributable to shareholders of Sartorius Stedim Biotech S.A. amounted to €208.1million relative to €161.1million a year earlier.

Statement of Profit or Loss

€ in millions	2018	2017	in %
Sales revenue	1,212.2	1,081.0	12.1
Cost of sales	-582.6	-526.2	-10.7
Gross profit on sales	629.6	554.8	13.5
Selling and distribution costs	-215.2	-195.2	-10.2
Research and development costs	-60.6	-53.2	-13.9
General administrative expenses	-67.0	-61.7	-8.6
Other operating income and expenses	13.5	-23.0	158.7
Earnings before interest and taxes (EBIT)	300.2	221.7	35.4
Financial income	5.3	9.5	-43.7
Financial expenses	-21.0	-10.6	-98.6
Financial result	-15.7	-1.1	n.m.
Profit before tax	284.5	220.6	29.0
Income taxes	-74.6	-56.8	-31.2
Net result	210.0	163.8	28.2
Attributable to:			
Equity holders of SSB S.A.	208.1	161.1	29.2
Non-controlling interest	1.9	2.7	-28.7

Earnings

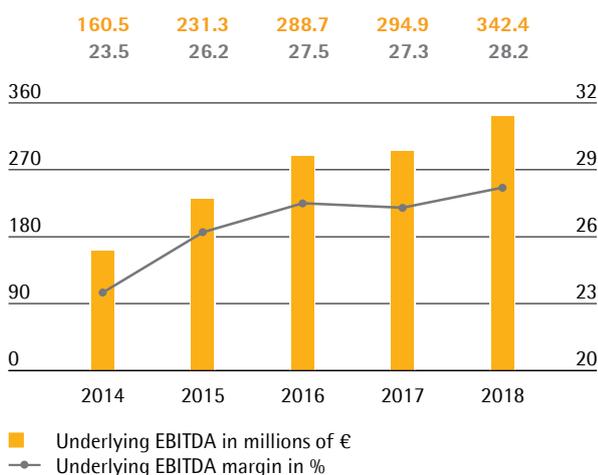
At the Sartorius Stedim Biotech Group, earnings before interest, taxes, depreciation and amortization (EBITDA) are used as the key profitability measure. To provide a complete and transparent picture of the Group's profitability, also in an international comparison, we report earnings adjusted for extraordinary items (underlying EBITDA). For more information about definitions, please refer to the Glossary on page 182. The underlying presentation is reconciled with the EBITDA key indicator (see Glossary) as follows:

Reconciliation between EBIT and underlying EBITDA

€ in millions	2018	2017
EBIT	300.2	221.7
Extraordinary items	-12.7	22.6
Depreciation and amortization	54.9	50.6
Underlying EBITDA	342.4	294.9

In fiscal 2018, Sartorius Stedim Biotech increased its earnings significantly. Underlying EBITDA thus rose by 16.1% to €342.4 million. The Group's respective underlying EBITDA margin improved to 28.2% (2017: 27.3%) due to economies of scale, thus exceeding our forecast which had been revised upwards at mid-year.

Underlying EBITDA and margin¹⁾

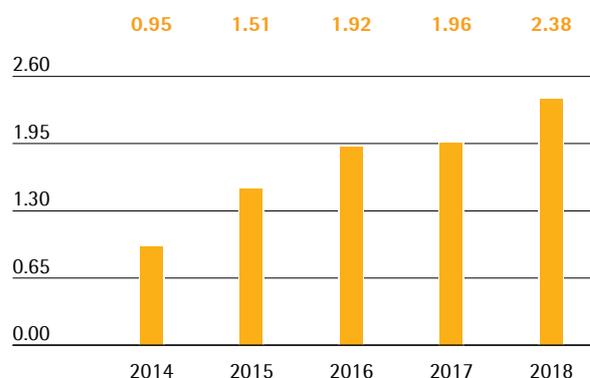


¹⁾ Adjusted for extraordinary items

The underlying net result after non-controlling interest for the Group rose strongly from €180.4 million a year ago to €219.3 million in fiscal 2018. This figure is the basis for calculating the profit to be appropriated and is calculated by adjusting for extraordinary items, eliminating non-cash amortization of €16.8 million (previous year: €16.6 million), and is based on the normalized financial result (see Glossary), as well as the corresponding tax effects for each of these items. Underlying earnings per share surged by 21.5% from €1.96 a year earlier to €2.38.

Underlying Earnings per Share¹⁾²⁾

in €



¹⁾ Excluding extraordinary items

²⁾ 2014 to 2015 adjusted for stock split; rounded values

€ in millions	2018	2017
EBIT (operating result)	300.2	221.7
Extraordinary items	-12.7	22.6
Amortization IFRS 3	16.8	16.6
Normalized financial result¹⁾	-5.3	-6.6
Normalized income tax (2018: 26%, 2017: 28%) ²⁾	-77.7	-71.2
Underlying net result	221.2	183.1
Non-controlling interest	-1.9	-2.7
Underlying net result after non-controlling interest	219.3	180.4
Underlying earnings per share (in €)	2.38	1.96

¹⁾ Financial result excluding fair value adjustments of hedging instruments, as well as currency effects from foreign currency loans

²⁾ Underlying income tax, based on the underlying profit before taxes and non-cash amortization

See Glossary for the definitions of the totals listed above.

Research and Development

Activities in product development at Sartorius Stedim Biotech encompass both new and advanced in-house product developments in our own core technologies as well as the integration of new products through collaborations and acquisitions.

Development activities focus on technology areas such as membranes, which are the core component of all types of filter products; various base technologies, such as single-use containers and sensors; and control technologies for processes such as fermentation. Additional focal areas include developments in materials and components such as plastic, elastomers and intelligent polymers; expanded data analysis; and cell-line development.

In the reporting year, one emphasis was on developing the next generation of integrity-testing applications and a system for virus filtration that can be integrated as a single-use solution, even in stainless-steel units.

Another key task in 2018 was the ongoing integration into our systems of software from Umetrics, which Sartorius Stedim Biotech acquired in 2017. It should become possible in 2019 to use the programs in the downstream process, as well.

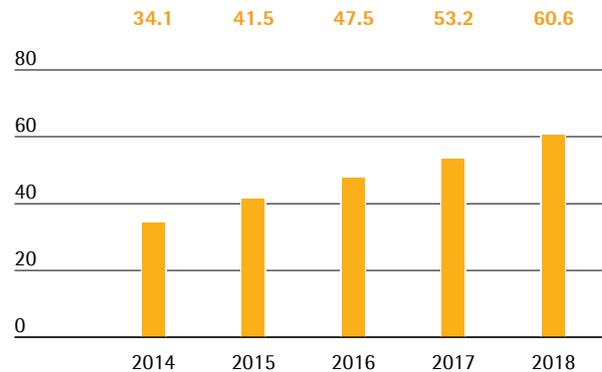
In addition, we are investing in the development of applications for regenerative medicine and plan to launch an analytical solution for lentiviruses, which include human immunodeficiency (HI) viruses. We also intend to launch an innovative single-use centrifuge and a membrane-based chromatography system on the market.

Our largest site for product development is Göttingen; other key sites are Aubagne (France), Guxhagen (Germany), Bangalore (India), Bohemia, New York (United States), Royston (United Kingdom) and Umeå (Sweden).

The Sartorius Stedim Biotech Group stepped up its research and development activities in the reporting year, increasing spending in this area by 13.9% to €60.6 million (previous year: €53.2 million). The ratio of R&D costs to sales revenue slightly increased to 5.0% compared to 4.9% a year earlier.

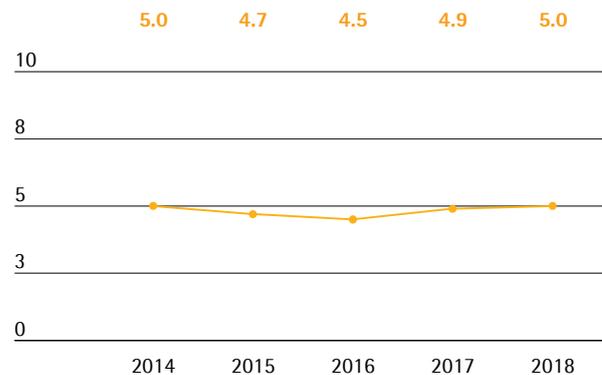
Research & Development Costs

€ in millions



Research & Development Ratio

In % of sales revenue



IFRS require that certain development costs be capitalized on the balance sheet and then amortized over subsequent years. In the reporting year, these development investments amounted to €22.8 million compared to €20.8 million the year before. This amounts to a share of 27.4% (2017: 28.1%) of the Group's total R&D expenses. Regular depreciation related to capitalized development costs totaled €4.3 million in the reporting period (2017: €4.7 million). These expenses are disclosed in the cost of sales.

To protect our know-how, we pursue a targeted intellectual and industrial property rights policy. We systematically monitor compliance with these rights and review from a cost|benefit viewpoint whether it is necessary to continue to maintain individual rights.

The number of applications for intellectual property rights filed in 2018 amounted to 125 compared to 135 in the previous year. As a result of the applications submitted in the past years, we were issued 154 patents and trademarks (previous year: 197). As of the balance sheet date, we had a total of 2,245 patents and trademarks in our portfolio (previous year: 2,073).

	2018	2017
Number of patent and trademark applications	125	135
Registered patents and trademarks	154	197

Capital Expenditures

The Sartorius Stedim Biotech Group increased capital expenditures considerably from €136.7 million in 2017 to €177.0 million in the reporting year. The ratio of capital expenditures to sales revenue was 14.6% (previous year: 12.6%), within the range of our forecast.

Owing to its strong organic growth, the company made significant investments during the reporting year in its production capacities. For instance, we build significant additional capacity for filters and bags at our facility in Yauco (Puerto Rico). The company is also making investments in additional capacity at our headquarter in Aubagne (France).

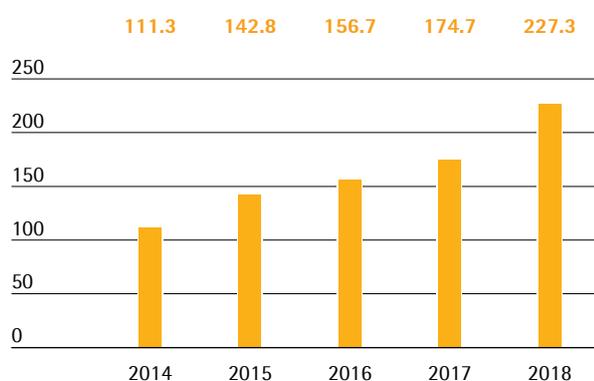
Net Worth and Financial Position

Cash Flow

In the reporting year, Sartorius Stedim Biotech again increased its net cash flow from operating activities. This figure amounted to €227.3 million relative to €174.7 million a year ago, which equates to growth of 30.1% and essentially reflects the improvement in EBITDA.

Net Cash Flow from Operating Activities

€ in millions



Net cash outflows from investing activities rose by 39.2% to €176.5 million. This increase mainly reflects investments for the expansion of our Yauco plant for single-use bags and filters as well as additional membrane casting capacities at the Göttingen site. Thus, the Sartorius Stedim Biotech Group financed its operational investments entirely from operating cash flows. The ratio of capital expenditures relative to sales in 2018 was 14.6% (previous year: 12.6%).

As we did not make any acquisitions in the reporting year, net cash flow from investing activities and acquisitions | divestitures likewise stood at -€176.5 million. The prior-year figure of -€194.9 million included acquisition-related expenses of €68.1 million from the purchase of Umetrics.

Net cash flow from financing activities, which includes payment of dividends of €43.2 million for fiscal 2017, totaled -€59.6 million. This compares to a cash inflow of €16.6 million in the previous year, which essentially reflected financing of above-mentioned acquisition.

Cash Flow Statement Summary

€ in millions	2018	2017
Net cash flow from operating activities	227.3	174.7
Net cash flow from investing activities and acquisitions	-176.5	-194.9
Net cash flow from financing activities	-59.6	16.6
Cash and cash equivalents	24.0	32.6
Gross debt	149.6	159.7
Net debt	125.7	127.1

Consolidated Statement of Financial Position

The balance sheet total of the Sartorius Stedim Biotech Group increased by €167.6 million to €1,571.5 million between year-end 2017 and the reporting date on December 31, 2018.

This increase is predominantly attributable to higher carrying amounts of property, plant and equipment and growth-driven higher inventories and trade receivables.

Non-current assets rose from €913.1 million in 2017 to €1,018.9 million in 2018, primarily due to investments in our production capacities.

Current assets amounted to €552.5 million compared to €490.8 million in the prior year. This increase was mainly driven by the aforementioned buildup in working capital.

Key Working Capital Figures in days

		2018	2017
Days inventories outstanding			
Inventories	x 360	75	62
Sales revenue			
Days sales outstanding			
Trade receivables	x 360	65	70
Sales revenue			
Days payables outstanding			
Trade payables	x 360	46	39
Sales revenue			
Net working capital days			
Net working capital ¹⁾	x 360	94	93
Sales revenue			

¹⁾ Sum of inventories and trade receivables less the trade payables

Driven by strong earnings, equity of the Sartorius Stedim Biotech Group grew from €879.5million in 2017 to €1,044.9million in 2018. Its equity ratio improved to 66.5% (December 31, 2017: 62.6%) and thus continued to remain at a comfortable level.

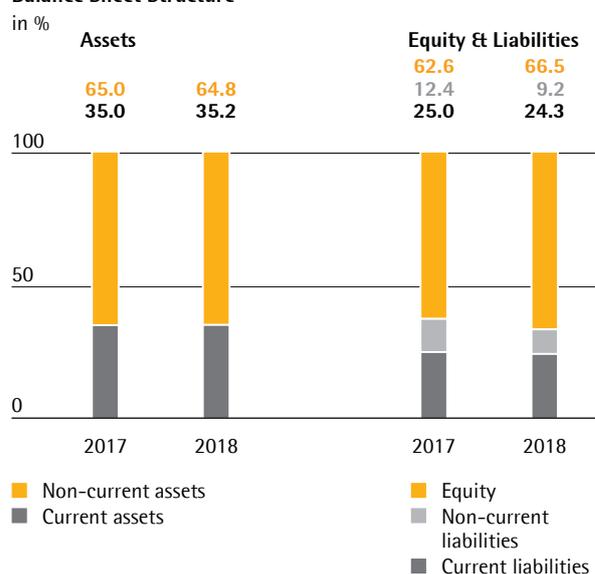
Current and non-current liabilities were largely unchanged at €526.6million, after €524.5million in the previous year.

Overall, gross debt decreased to €149.6million as of December 31, 2018, compared with €159.7million for the year ended December 31, 2017. Net debt as of the reporting date was at €125.7million relative to €127.1million a year ago. This figure excludes the liability for the remaining purchase price for acquisitions amounting to €8.7million in 2018.

Calculation of net debt

€ in millions	2018	2017
Non-current		
Loans and borrowings	43.1	46.3
Finance lease liabilities	15.0	15.8
Current		
Loans and borrowings	89.8	95.9
Finance lease liabilities	1.7	1.7
Gross debt	149.6	159.7
Cash and cash equivalents	24.0	32.6
Net debt	125.7	127.1

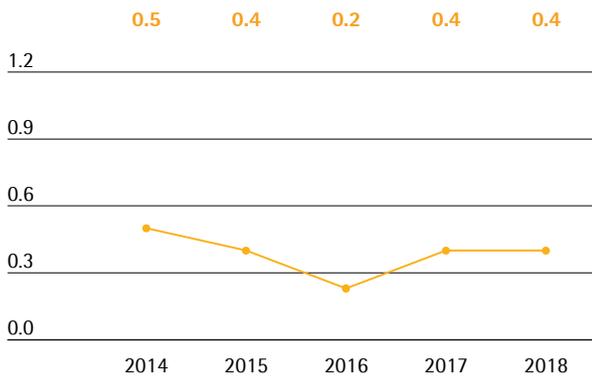
Balance Sheet Structure



Net Debt to Underlying EBITDA

Regarding the debt financing potential of the Sartorius Stedim Biotech Group, the ratio of net debt to underlying EBITDA represents a key management indicator. This ratio stayed at the previous year’s level of 0.4, in line with our expectations.

Ratio of Net Debt¹⁾ to Underlying EBITDA



¹⁾ The net debt excludes the liability for the remaining purchase price for acquisitions; 2018: €8,7 million, 2017: €46.5 million, 2016: €49.6 million, 2015: €47.5 million, 2014: €42.8 million

As of December 31, 2018, the total volume of all available capital and guaranteed credit lines amounted to €340million. Of this amount, Sartorius Stedim Biotech has drawn on €117.5million, leaving available credit of €221.5million at the end of 2018. All in all, this ensures that all Group companies have sufficient funds to successfully finance their business operations and new capital expenditures.

We are utilizing hedging transactions to counteract the fluctuations in foreign-exchange rates to which the Group is exposed on account of its worldwide business operations. At the end of 2018, foreign-exchange contracts amounted to €145million on a reported basis, with a market value of €1.5 million

Financing | Treasury

Our financing strategy aims to ensure our solvency at all times, limit risks associated with financing instruments and optimize our cost of capital. Sartorius Stedim Biotech covers its financing needs through a combination of operating cash flows and the assumption of short-, medium- and long-term financial liabilities.

In December 2014 Sartorius AG has entered into a syndicated revolving credit line agreement of €400million with a maturity that was extended until December 2021. Since then, Sartorius Stedim Biotech has been utilizing a credit line with a volume of up to €310million provided by Sartorius AG.

Furthermore, the Group has a long-term loan agreement with the Kreditanstalt für Wiederaufbau (KfW) for a current volume of €6.3million relating to investments in production capacities and diverse bilateral credit lines of approximately €23million in total.

The above-mentioned financing comprises instruments with both fixed and variable interest.

Product and Sales

Sartorius Stedim Biotech sells products and services for the entire added value chain in biopharmaceutical production and upstream process development. The portfolio includes cell lines, cellculture media, bioreactors, a wide range of products for separation, purification and concentration, and systems for the storage and transport of intermediate and finished biological products.

New Products with a Focus on Automation

As an industry leader in fermentation, during the reporting year Sartorius Stedim Biotech introduced a fully automated bioreactor system based on single-use technologies. It can be used to portray the development of bioprocesses even on an especially small scale. The ambr 250 system allows customers to execute up to 24 fermentation processes simultaneously during the development and optimization of processes.

In 2018, we launched an automation platform for the process control of single-use bioreactors and various filtration systems, which we developed with Siemens. With this offer, we extend our expertise as a partner for our customers' automation solutions.

In the year under review, Sartorius Stedim Biotech and the U.S. bioprocess company Repligen reached an agreement that helps customers more quickly establish single-use solutions for continuous bioprocessing. At the core of the collaboration is the idea that through continuous processing, the production of biopharmaceuticals can be intensified and system output increased in order to reduce manufacturing costs.

Modified Relationship with Lonza for Cell Culture Media Business

Since late 2012, Sartorius Stedim Biotech has been working on cell culture media with the life science company Lonza. The contract then signed by the two companies granted Sartorius Stedim Biotech the exclusive sales and marketing rights for particular cell culture media and buffers developed and manufactured by Lonza that are used in biopharmaceutical production processes. During the reporting year, Sartorius Stedim Biotech and Lonza modified the contract by mutual accord. Starting in 2019, Sartorius Stedim Biotech will retain current and future Lonza media and buffers in its portfolio of products for cell-based development and manufacture; mutual exclusivity, however, no longer applies. The

new agreement offers both contractual partners greater leeway with regard to advancements and strategic positioning.

Sales Activities Expanded

Sartorius Stedim Biotech markets its product portfolio directly through its own field sales representatives. Sales activities for key accounts are coordinated and supported by global key account management. During the reporting year, we expanded key account management and added more customers to the corresponding programs.

As part of our strategy to position our product portfolio as a platform, we entered into various agreements during the reporting year. The life science group Abzena plc selected Sartorius Stedim Biotech as its preferred partner for equipping its integrated contract development and manufacturing organization (CDMO) systems in Bristol, Pennsylvania and San Diego, California. ABL Europe, a subsidiary of the U.S. contract production and laboratory research company ABL Inc., chose Sartorius Stedim Biotech as its primary supplier of single-use systems.

Production and Supply Chain Management

Sartorius Stedim Biotech operates a very well developed production network around the world. The largest production sites are located in Germany, France and Puerto Rico. Sartorius Stedim Biotech also manufactures in the United Kingdom, Switzerland, Tunisia, India, the United States and, since 2018, in China.

Expansion of Production Capacity

A new manufacturing facility for filters opened in Göttingen during the reporting year. Sartorius Stedim Biotech also expanded production capacity at its Yauco site in Puerto Rico, where membrane filters and sterile bags are manufactured primarily for the U.S. market. For products manufactured in Yauco, the company also began operating a warehouse in Florida, USA, which helps ensure smooth supply to customers on the U.S. mainland.

A new logistics center, which opened in Aubagne in 2018 and covers 12,000 square meters, provides the capacity that the company will need in the years to come. An additional cleanroom in Aubagne also boosts the site's production output.

The topping-off ceremony for the development and production center for cell lines was held in Ulm, Germany, in the year under review. With 6,000 square meters of usable floor space, the new center will be about twice as large as the current facility in Laupheim, near Ulm. The company plans to move operations from Laupheim to Ulm in late 2019.

In addition, Sartorius Stedim Biotech has begun producing sterile single-use bags in Beijing (China), where it plans to manufacture additional products.

Sustainability

Sustainability information for the Sartorius Stedim Biotech Group is not reported. In accordance with the provisions of Article L.225-102-1 IV of the French commercial code, Sartorius Stedim Biotech is exempted from presenting this information, because it is included in the non-financial statement established and published by the controlling company, Sartorius AG, as per applicable German regulations.

Opportunity and Risk Report

Principles

Every business activity entails opportunities and risks, which have to be managed. The skill with which this is done goes a long way in determining the future development of a company's shareholder value.

It is not the task of risk management to eliminate all risks: rather, our approach is to intentionally take a certain measure of risk in our business activities in order to be successful in unlocking opportunities. However, in this endeavor, it is important to keep risks contained within acceptable limits and to control them carefully. Through appropriate guidelines, we ensure that risk assessments are taken into account in the decision-making processes from the very beginning.

Sartorius Stedim Biotech has decided to make the identification and the management of risks and opportunities a cross-functional component of Group management. In this context, Sartorius Stedim Biotech's risk management is integrated into the Sartorius Group organization. Our risk management organization reflects a global functional matrix organization in which individuals heading a functional area are each responsible for their own management of opportunities and risks. The Finance & Controlling department is responsible for the organization of the respective reporting process, including the further development of the Group's risk management system.

Managing Opportunities

Our opportunity management centers on the analysis of target markets and sector environments, as well as the assessment of trends, both of which give strong indications as to future business opportunities. The identification of the potential for development in this context is one of the key roles of the relevant managers and initially takes place at the local rather than the central level. The market-facing functions, such as marketing and product management in the individual divisions, play a leading role in this respect. The central Business Development unit supports these areas with market monitoring, data analysis and the implementation of strategic projects.

As part of strategy reviews, the members of the Group Executive Committee regularly meet with the managers having operational responsibility to discuss short-, medium- and long-term opportunity potential for the various business areas. The subsequent steps of prioritizing the opportunities and evaluating them

from a business management perspective, deriving strategic measures and allocating resources proceed in accordance with a standardized decision-making process that applies throughout the Group. If the opportunities are short-term in nature, they are considered in annual budget planning. Medium- and longer-term opportunities are tracked systematically as part of strategic planning.

As a supplier for the pharmaceutical industry, Sartorius Stedim Biotech operates in a future-oriented and high-growth sector. The significant opportunities generated by the various market and technology trends are described in detail in the sections entitled "Sector Conditions" and "Outlook for the Sector" on pages 22 et seq. and pages 47 et seq., respectively.

Our assessments rank the company as one of the global market leaders in many subsegments and product areas. We believe the high quality of our products, our strong brand recognition and our established customer relationships give Sartorius Stedim Biotech strong opportunities to continue extending our market leadership. The corresponding strategies and the growth opportunities and initiatives based on them are discussed in the section on the strategy of the Group, which begins on page 19.

Strict management of processes and costs provides opportunities to further increase our profitability. Key target areas in this respect include continued enhancements of our procurement chain and ongoing efforts to optimize production, which we present on page 32.

Risk Management

Organization

The overall responsibility for the maintenance of an effective risk management system ensuring comprehensive and consistent management of all material risks rests with the Audit Committee. The Finance & Controlling Department is responsible for coordinating and developing this system and for consolidated risk reporting, while the particular functional areas are responsible for identifying, analyzing and reporting individual risks. This includes the assessment of their potential impact and the decision on taking the appropriate countermeasures.

The Audit Committee monitors the effectiveness of the risk management system. Furthermore, while carrying out their statutory audit mandate for the annual financial statements and consolidated financial statements, the independent auditors examine whether the early warning system in place is capable of prompt identification of risks that could jeopardize the future of the company. Finally, the Internal Audit Department regularly reviews the risk management process and system.

Insurance

We have taken out insurance policies to cover a wide range of risks where possible and economically advisable. These insurance policies include coverage against product liability, property damage, business interruption, transport, material and pecuniary damages and other risks, and provide comprehensive coverage for legal costs. An independent department working in conjunction with an external insurance broker regularly reviews the nature and extent of our insurance protection and makes any adjustments as necessary.

When choosing our insurers, we particularly consider the credit rating of these entities as potential contractual partners, as well as aim to achieve a high degree of diversity in order to mitigate the related risks.

Risk Management System and Risk Reporting

Sartorius has implemented a global guideline (Risk Management Handbook), which includes definitions of the framework, the structural organization, processes, risk reporting and monitoring and controls of the effectiveness of the risk management system. The handbook is based on the internationally recognized COSO (Committee of Sponsoring Organizations of the Treadway Commission) standard. There are also a number of other sources that contain stipulations for handling risks, including the articles of association and rules of procedure of the Group companies and other internal guidelines.

The prescribed reporting process in the risk categories subsequently described establishes the rules for the ongoing review of and information on risk situations. If any specific risks are discernible, these are documented with respect to their assessment, probability of occurrence and measures to be taken to eliminate such risks or to mitigate their impact.

We have an urgent reporting procedure in place to ensure that when a new or emerging significant risk to our net worth, financial position and profitability is identified, the audit committee receives all of the necessary details without undue delay.

To classify risks appropriately, we have defined four main categories: external risks, operating risks, financial risks and compliance risks. Each main category is divided into several subcategories that are described in the following sections.

Probability of Occurrence	
Remote	< 10%
Possible	10% - 50%
Probable	50% - 90%
Very likely	> 90%

Significance	
in millions of €	Impact on Earnings
Insignificant	< 10
Moderate	10 - 50
Significant	50 - 100
Critical	> 100

Explanation of Principal Risks and Opportunities

External Risks

General Risks

In principle, our ability to foresee and mitigate the direct and indirect effects of risks entailed by life in general is limited, but we proactively take measures, whenever feasible, to ensure that we can respond appropriately and at short notice or are insured against any damage entailed by such risks that include, for instance, natural catastrophes and their associated damage to commercially significant and critical infrastructure.

Our largest sites in Germany and France do not face major risks from natural catastrophes, while e.g. our production plant in Puerto Rico is exposed to the risk of severe hurricanes. We control this risk by applying high security standards to the buildings and explicitly consider this risk in our warehousing and production network strategy.

Political developments, such as the referendum on the United Kingdom's leaving the European Union ("Brexit")

or the change in politics in the USA, can have an impact on the Group's business. Such developments may involve changes to the tax system or customs duties, as well as impacts on the exchange rate of the euro to the British pound or the U.S. dollar (for more on the subject of exchange rates, see the section below on Exchange Rate Risks).

In the U.K., we run various manufacturing and sales entities with a significant business volume. Any development that has a negative impact on the trading between the U.K. and other countries could therefore lead to a corresponding decrease in Group's earnings. The further developments are being closely observed so that measures can be taken to reduce such risks, as necessary. The tax reform implemented in the United States in 2017 has so far reduced the Group's tax payments; however, other measures might result in a tax burden.

Business Cycle Risks

The nature of our various business areas means that Sartorius Stedim Biotech as a whole is insulated to a certain extent from the full force of wider cyclical effects. If economic developments prove more positive than expected, this, in turn, can additionally stimulate stronger growth.

Operational Risks and Opportunities

Our supply chain extends from procurement to production to sales and distribution. Problems within this workflow can have consequential effects, including delays in deliveries. The global supply chain management system we have instituted throughout our production processes to prevent such problems largely minimizes the associated risks by analyzing and controlling all of the operations involved. The strongly international alignment of our organization opens up a whole series of opportunities too. The various risks and opportunities encountered within our supply chain are explained in detail below.

Procurement Risks and Opportunities

We purchase a wide range of raw materials, components, parts and services from suppliers and are consequently exposed to the risks of unexpected delivery bottlenecks and price increases.

Over the past years, we have implemented powerful tools and robust processes in our Materials Management unit to manage risks and critical materials.

These means enable us to meet the needs of our customers with respect to delivery reliability and transparency. This can represent a competitive advantage. Important measures in this respect are to maintain security stock and to define alternative suppliers according to our second-supplier policy. We moreover conduct regular supplier reviews and also use early warning systems.

Risks from raw material prices play a rather subordinate role in our business. On the one hand, the proportion of raw materials in our production costs is comparatively low. On the other hand, we purchase a wide range of materials so that price increases for certain materials do not represent any significant impacts.

Opportunities can arise in the area of procurement when our growth enables us to increase order quantities and thereby strengthen our position with our suppliers, such as by receiving price discounts or preferential treatment as a "preferred customer." In addition, we maintain a list of preferred suppliers in order to enter into long-term business relationships with key suppliers to our mutual benefit.

Increased globalization of our supplier pool holds the prospect of purchasing on more favorable terms, moreover, and there is also a possibility of our expanded purchasing activities in the international markets leading us to identify suppliers with special product and technical expertise that could eventually enhance our own competitive edge.

Production Risks and Opportunities

Based on our core technology expertise, we ourselves manufacture a large proportion of the products that involve a high level of vertical integration. Other products, such as reusable fermenters and bioreactors, are manufactured in collaboration with suppliers so that some of the production risks are transferred to external third parties. When we manufacture products ourselves, we also bear the associated risks of capacity bottlenecks or overcapacity, production downtimes, excessive reject rates and high levels of tied-up working capital, as well as dependency on individual manufacturing sites.

We contain and reduce these risks by planning production capacities carefully, using versatile machines, semi-automated individual workstations and flextime work schedules, and by continuously monitoring production processes. Moreover, our global manufacturing network enables us to compensate for any capacity bottlenecks by shifting production to other

regional plants and to minimize our dependency on individual local production plants. Furthermore, we have taken out policies for business interruption insurance to compensate for any possible losses due to production downtimes.

We consider it an opportunity that our investments in infrastructure and production resources, among other things, have given us high flexibility in our manufacturing operations and that we are capable of meeting our customers' requirements and regulatory standards with respect to business continuity concepts. In addition, this approach ensures that our individual production sites can concentrate on specific manufacturing technologies, gaining added efficiency as a result. Our international manufacturing network also makes it possible to capitalize on the cost advantages offered by individual sites. Furthermore, continuous improvements in production, such as simplifying processes and increasing levels of automation, help drive manufacturing efficiency even higher.

Sales and Distribution Risks and Opportunities

We use a variety of channels to sell and distribute our products around the world. The potential risks entailed are unexpected changes in the demand structure, growing price pressure and non-compliance with supply agreements concluded with customers. We employ targeted market analyses to identify emerging demand trends in individual segments early on so that we have time to respond appropriately. Our technical innovations and the fact that a wide range of our products is used in validated production processes in the biopharmaceutical industry, reduce our exposure to the risk of growing price pressure. We have reduced our risk exposure in the area of logistics in recent years by setting up and using central warehouses to optimize distribution logistics.

Opportunities arise in the area of sales and distribution when the increasing breadth of our product range puts us in a position to sell new products to existing customers. Our business relationships, most of which are established for the long term, and our global presence provide further opportunities.

Sartorius Stedim Biotech sources its key customers from the pharmaceutical, chemical and food industries. These customers are usually relatively large organizations that have been in existence for some time and have strong credit ratings. Accordingly, the Group has had low to zero credit losses over the past years, and its overall credit risk continues to be at a

very low level. Most of our business areas have a highly diversified customer base, so the Group as a whole is not dependent on individual key accounts to any significant degree.

Competitive Risks and Opportunities

Sartorius Stedim Biotech has a leading competitive position in most of its markets. Some of our competitors are larger than us, and most share our status as a globally operating company. As we serve a large number of customers from highly regulated sectors like the pharmaceutical and food industries, and the technology barriers to market entry are substantially high, we regard the probability of new competitors emerging within the short term as low.

The fact that many of our products are used in validated bioprocesses reduces the risk of losing significant market share within a short timeframe. At the same time, it is also more difficult for us to quickly force out the competition that serves customers in this area.

Changes in the competitive environment, for example, a further consolidation in the markets, can pose opportunities. We have been continuously making acquisitions in recent years to reinforce our market position and open up new potential synergies.

Quality Risks and Opportunities

Our customers use Sartorius Stedim Biotech products in a wide range of critical production processes, including the manufacture of pharmaceuticals, foods and chemicals, and in research and development laboratories. The main risk encountered in these areas is non-compliance with agreed quality criteria, which can lead to losses for our customers, or their customers, for which we may be made liable through compensation claims.

We employ rigorous quality checks and advanced production methods and processes, such as cleanroom technology, to ensure that our products satisfy the most stringent quality standards and high regulatory requirements. These manufacturing methods and processes are subject to constant review under our continuous improvement processes, moreover, and are optimized as requirements evolve. Our successful completion of a host of annual audits by customers and implementation of quality systems compliant with ISO 9001 and, where applicable, with ISO 13485 document the high level of quality achieved in Sartorius products and processes. Irrespective of these

measures, we also maintain significant insurance coverage against product liability risks. Sartorius Stedim Biotech has established a traceability system that enables us to recall an entire production batch immediately, if necessary, and minimize any adverse consequences in the event of defects being discovered in a product.

We have installed a complaints management system to deal with customer requests and to ensure full documentation.

In the sectors we address, quality requirements are growing more and more stringent all the time, not least as a result of increasing requirements on protection of medical patients and on product safety by regulatory authorities. Increasing and changing requirements typically entail the risk that a new requirement might be overlooked or be difficult to achieve, but we regard this first and foremost as an opportunity that opens up new market prospects. The reason is that challenging quality demands represent a considerable barrier to entry for potential new competitors and provide stimulus for further technical innovation to which we actively respond. Moreover, we actively seek to draw up new requirements through our work on professional committees, membership in industry associations and standards committees, and are able to identify emerging requirements these at an early stage and prepare ourselves accordingly.

R&D Risks and Opportunities

We devote a considerable share of our resources to research and development. Potential risks in this area may arise from development results that diverge from market needs and application requirements and from exceeding planned development deadlines. Our advanced project management, intensive R&D controlling and early involvement of our customers in the development process substantially limit these R&D risks. We ensure that product developments are always reviewed very promptly with regard how well they meet the customers' needs so products can be adapted accordingly as needed. Patents and continuous tracking of the technologies and competitors relevant to us secure our technology and marketing position.

On the other hand, the R&D sphere also offers a number of potential opportunities. Our intensive collaboration with partners that rank among the global market leaders in their own fields opens up the opportunity for us to jointly develop products with an especially high level of innovation. In areas such as membrane technology and plastics technology, as well as sensorics and bioprocess engineering, in turn, the

expertise of our own specialists puts us at the very forefront of global research and development, presenting us with an opportunity to turn this technical knowledge into potential sales and an even stronger position on the market. The combination of different innovative activities in a separate Corporate Research Department further enables us to identify and benefit from promising developments and emerging trends at universities, startups and at our customers' plants.

Acquisition Risks and Opportunities

By nature, acquisitions provide many opportunities, such as sales growth, extension of our product portfolio and development of new markets. By contrast, the purchase and sale of companies or parts of companies entail a number of typical risks, such as incorrect valuation assumptions or insufficient usage of anticipated synergy effects. To prevent these risks, we take various measures, such as performing a standard due diligence review of important areas and carrying out comprehensive analysis of the market concerned. In addition, we involve external consultants and experts in the purchase or sales process as required. We especially focus on drafting transaction contracts so that they adequately counter such risks, especially by clauses assuring specific characteristics or by contractual warranty or guarantee provisions, as well as agreements on mechanisms for adjustment of the purchase price and on liability clauses. Immediately after an acquisition has taken place, an integration phase is initiated in which any potential risks can likewise be detected as early as possible and prevented or minimized by taking the appropriate counteractions.

Personnel Risks and Opportunities

As an innovative technology group, Sartorius Stedim Biotech employs a large percentage of highly qualified people. We counter the risks of a possible scarcity of required specialists, especially those in key positions and of demographic change by offering performance-related remuneration models, targeted continuing professional development options, further attractive social benefits, continuous education and training for junior staff members within our organization and interesting people development opportunities.

The success of these measures is apparent in the low attrition rates of recent years and the many years of seniority our people accumulate on average. Employment contracts in certain cases contain a clause prohibiting any move to a direct competitor.

Opportunities for Sartorius Stedim Biotech primarily arise in that it can further qualify its staff by offering its own training courses and retain such staff over the long term, thus covering company needs for qualified personnel particularly well.

IT Risks and Opportunities

The business processes of the Sartorius Group are supported by IT applications and systems. Failure or

other impairment of the relevant IT systems or (cyber)attacks can considerably disrupt the smooth functioning of the companies business processes and lead to manipulation or to uncontrolled loss or leakage of knowledge or data.

We minimize this risk by continuously investing in the setup and operation of secure IT systems and applications and by continuously further developing and implementing our concepts and security measures based on the International Standard ISO 27001, Information Security Management System. In addition, we incorporate the results of regular audits and vulnerability assessments carried out by external companies specializing in IT security.

Protection of our data against misuse is ensured by specific authorization and authentication policies based on the assignment of rights limited to a "need-to-know" basis for performing certain tasks, and the application of such policies is reviewed at regular intervals.

We protect our systems against failure and data loss by regular data backups, recovery testing based on rolling disaster scenarios and risk-based use of redundant IT infrastructures. Multi-factor authentication solutions enable us to prevent malware threats.

We are convinced that the threat of cyberattacks is growing worldwide, both in number and intensity. This is why we are continuously extending and strengthening our activities: We are improving our efforts by further automating management of authorizations and reducing the potential for data misuse, among other measures. We inform our staff in a targeted way about possible threats and risks, involving our employees by providing them with simple but effective options for decentralized defense and reporting suspicious emails to IT for checking.

By extending our means for competent and fast response to cyberattacks including other IT security incidents, we supplement our organizational basis for running the Sartorius system and applications at the lowest possible risk across the entire landscape.

Financial Risks and Opportunities

The global nature of the Sartorius Stedim Biotech Group's operations means that its business activities are inevitably exposed to financial risks. The most significant of these, are exchange rate risks, interest rate risks and liquidity risks, all of which are described below and addressed in detail in the Notes to the

Consolidated Financial Statements. Vice versa, financial risks, most notably exchange rate risks and interest rate risks, are balanced by opportunities of approximately equal magnitude.

Exchange Rate Risks

As a consequence of its global business activities, the Sartorius Group is exposed to foreign currency fluctuations. Since we generate around two-thirds of consolidated sales revenue in foreign currencies and, of this figure, approximately two-thirds of this total revenue in U.S. dollars or in currencies pegged to the U.S. dollar, we are positively or negatively impacted by currency effects, especially when converting the currencies of balance sheet items and profit or loss items, respectively. Besides the U.S. dollar, other key currencies are the South Korean won, the Chinese renminbi, the Swiss franc and the British pound.

Our global production network thus enables us to offset the lion's share of sales revenues received in foreign currency within the Group against costs likewise incurred in foreign currency. For example, we manufacture many of our products for the North American market locally, and are not disadvantaged in competition with our U.S. rivals, insofar as this general currency risk is concerned. We continuously monitor the portion of our foreign currency sales revenue that remains after we have settled our costs, so-called net exposure

In order to evaluate and steer the remaining risk based on the expected net exposure for the next 12 months and take into consideration hedging transactions already executed, we are continuously calculating our risk exposure with a cash flow at-risk model. We use this basis to decide on whether to use additional derivative financial instruments, especially spot, forward and swap transactions, to adjust for maximum loss. Hedging transactions are set up by one group of staff and monitored by another, separate group.

Interest Rate Risks and Opportunities

We have concluded fixed interest agreements for approximately two-thirds of our outstanding loans to eliminate the risk posed by variable interest payments. The remaining portion of the financial instruments outstanding on the reporting date is subject to variable interest based on the market rate. We monitor interest rate trends and our interest rate exposure constantly and have the facility to arrange for hedging transactions where we consider it necessary and economically advisable to do so for individual loans. As of December 31, 2018, we did not have any interest

rate derivatives in our portfolio of financial instruments.

Liquidity Risks and Opportunities

The Sartorius Stedim Biotech Group's liquidity is managed centrally in order to minimize liquidity risks and optimize liquidity allocation within the organization. For this purpose, various long- and short-term financial instruments are utilized. Regarding the maturities of our loans, we make it a policy to take a risk-averse approach.

In addition to a 300 MEUR credit line provided by Sartorius AG that can be accessed and repaid at short notice, we have a number of bilateral working capital credit lines for individual Group companies in place. Furthermore, we use cash pooling agreements between selected Group companies as the primary tool to manage liquidity within the Group.

Compliance Risks

Regulatory Risks

Our role as a supplier to the biopharmaceutical industry and health care providers means that Sartorius Stedim Biotech can also be affected by underlying developments in these areas. The possibility of the regulatory authorities (FDA, EMA) adopting a more restrictive approach to the approval of new medications remains the principal source of risk in this context. Such a move would reduce the number of new pharmaceutical products to be marketed and would consequently downgrade future prospects for Sartorius Stedim Biotech over the medium term.

Environmental Risks

Sartorius Stedim Biotech has established an environmental management system that encompasses, and is integrated into, all divisions and covers a whole series of environmentally relevant regulations to minimize environmental risks. This management system has been certified for compliance with ISO 14001 at a number of the company's relatively large manufacturing sites. The respective company organizational units ensure at the particular sites that the laws and regulations relating to environmental protection are observed and that further technical possibilities for limiting environmental risks are identified on an ongoing basis.

The increasing importance of sustainability considerations in many industries represents an opportunity. That is why this aspect is a key element in our supplier selection process for assessing the suitability of a particular company as a business partner.

Litigation Risks

Litigation risks for Sartorius Stedim Biotech can arise from pending or forthcoming legal disputes or from administrative proceedings. All judicial or extrajudicial

disputes are attended to by the company's own attorneys and legal experts, who engage external lawyers as needed.

At present, there are no pending or discernible legal disputes or proceedings that lack any cost coverage allowances in the statement of financial position or that could have a substantial negative impact on Group.

Assessment of the Overall Risk Situation and Risk Outlook

Where feasible, we adopted countermeasures and/or arranged for balance sheet measures during the reporting year to cover all discernible risks within the Sartorius Stedim Biotech Group, and those of a defined probability of occurrence, that had the potential to damage our net worth, financial situation and profitability.

For the purposes of this report, we have assessed the probability of occurrence of the risks shown below and, in the adjacent columns, classify their particular significance for the entire Group.

Risk Category	Probability of Occurrence	Significance
External risks		
General risks	Possible	Significant
Business cycle risks	Possible	Moderate
Operating risks		
Procurement risks	Remote	Significant
Production risks	Remote	Significant
Sales and distribution risks	Possible	Significant
Competitive risks	Remote	Moderate
Quality risks	Remote	Significant
Research and development risks	Remote	Significant
Acquisition risks	Possible	Significant
Personnel risks	Remote	Moderate
IT risks	Possible	Significant
Financial risks		
Exchange rate risks	Probable	Moderate
Interest rate risks	Probable	Insignificant
Liquidity risks	Remote	Moderate
Compliance risks		
Regulatory risks	Possible	Significant
Environmental risks	Remote	Moderate
Litigation risks	Possible	Moderate

After thorough analysis of the entire risk situation and according to our current review, there are no discernible risks at present that could jeopardize the continued existence of the Group.

Similarly, based on our current review, there are no discernible risks that could jeopardize the future existence of the Group.

Material Events after the Reporting Date

No material events, of any nature, occurred after the reporting date.

Internal Control Procedures

Introduction

The objectives defined by the Chairman for the internal control system of Sartorius Stedim Biotech are as follows:

- Prevent risks that would endanger the quality of the assets of Sartorius Stedim Biotech or even its existence;
- Ensure that the executive management activities, the transactions completed and the conduct of employees comply with the guidelines defined by executive management, applicable laws and regulations, the fundamental values, standards and internal rules of the business and the ethical codes and conventions of the healthcare industry;
- Ensure that accounting and financial information and management data provided to the executive management of the company accurately reflect the operations of Sartorius Stedim Biotech;
- Prevent risks arising from operations, errors or fraud, especially in the accounting and financial area.

Scope of Internal Control

The internal control system described covers the parent company and its affiliates.

Components of Internal Control

Environment for Internal Control

The core of any business is its people (their individual attributes, including integrity, ethical values and expertise) and the environment in which they operate. They are the engine that drives the organization and the foundation that supports the company.

Risk Assessment Process – Risk Mapping

The company must be aware of, and deal with, the risks it faces. It must set itself objectives and integrate them into its sales, production, marketing, financial and other activities so that the organization operates in concert. It must also establish mechanisms to identify, analyze and manage the related risks.

Control Activities

These control activities are undertaken at every level of the Group to ensure that internal control is efficient: checking the accuracy, completeness, authorization, validation and recording of transactions and ensuring that different people discharge different duties so as to reduce the risk of errors or fraud.

Information and Communication

The availability of accurate, reliable and complete information is essential both to achieve business objectives and to enable proper reporting to all parties concerned in compliance with the applicable laws and regulations.

Monitoring, Control and Management

Responsibilities and authorities must be defined and understood at all levels of a company for internal control to function effectively. Duties must be assigned in such a way that a person's work is always checked and approved by a different person. Where the size of the local unit concerned permits, responsibility for initiating, authorizing, recording and processing transactions must always be assigned to different individuals.

Unit management is responsible for maintaining internal checks and internal control at all times.

Internal Controlling Roles

Executive Management

The Chairman and Chief Executive Officer is responsible for the internal control system and management at all levels. He is also responsible for the development, operation, monitoring and management of the internal control and controlling systems and for providing the necessary assurances that these steps have been implemented.

Audit Committee

The Audit Committee is responsible for carrying out any necessary reviews and evaluations of the internal controlling procedures, including those relating to financial information, and also assists with the preparation of the Group's consolidated financial statements. For further information about the Audit Committee, see page 69.

Risk Management

The Sartorius Stedim Biotech Group is inevitably exposed to a wide variety of risks by the nature of its operations around the world. Accordingly, an internal risk management system has been set up to help identify, assess and manage these risks efficiently. Within this risk management system, an ad hoc committee comprised of representatives of different departments regularly studies current issues of risk management. This enables the committee to provide executive management with an overview of the risk to which the company is exposed, enabling it to take appropriate action when required.

Internal Auditing Department

The Internal Auditing Department is in charge of monitoring the effectiveness and suitability of risk management and the internal control system in Sartorius Stedim Biotech Group companies, as well as compliance of all activities and processes with internal and external rules and standards. It provides independent auditing and consulting services that focus primarily on compliance with all relevant legal provisions and the improvement of business processes at the company. To ensure the independence of the internal auditors, the Audit Committee receives, at least once a year, a report from the Internal Auditing Department on the work they have done (according to the audit plan established by this committee) and their findings with regard to Group affiliates.

Finance and Controlling Departments

The Finance and Controlling Departments track and monitor operations and projects to optimize the Group's profitability and cash flow, providing both internal and external stakeholders with reliable information.

These two departments define the Group's accounting rules and methods and its principle financial processes (five-year business plan, budget, etc.) as well as reporting tools, in order to monitor the day-to-day business.

Procedures for Preparing the Group Financial Statements and Other Accounting and Financial Information

The accounts of affiliates are prepared in accordance with the Group's accounting policies. The data is then adjusted, where necessary, to produce company accounts that comply with the applicable local legal and tax provisions. Integrated consolidation software is used both for management reporting purposes and to produce the Group financial statements.

Since 2013, the Group has decided to implement a hard close process as of November 30 in order to anticipate and improve the annual audit.

Accounting Standards

The consolidated financial statements are prepared in accordance with IFRS accounting standards as currently adopted by the European Union. The consolidated financial statements comply with accounting rules and methods as detailed in the Notes to the Consolidated Financial Statements.

Roles of the Group's Finance and Controlling Departments

The Finance and Controlling Departments check the quality of the reporting packages submitted by affiliates, focusing primarily on the following elements: checking corporate data and consolidated adjustments entered locally, inter-company eliminations, the accounting treatment of non-recurring transactions for the reporting period, and verifying principal movements between the opening and closing balance sheets to prepare the cash flow statement.

The Finance Department also verifies the results of procedures, including currency translation, intercompany eliminations, etc.

Key points of review include the preparation and validation of the statement of changes in shareholders' equity and the cash flow statement.

Financial Information and Reporting

The Group's rules and procedures in relation to financial reporting and accounting are set out in the Accounting and Reporting Manual. Application of and compliance with these principles, rules and procedures are the direct responsibility of the finance director of each affiliate. They must ensure that information provided via the Management Information System complies fully with all applicable disclosure requirements.

Executive Management reviews the effectiveness of the internal controlling of financial reporting regularly. In particular, it verifies that transactions have been recorded consistently, in accordance with IFRS international accounting standards as applied by the Group and as set out in the Accounting and Reporting Manual, in order to ensure the pertinence of transactions and assets recognized within the times set.

Internal Control in 2018

From an internal control perspective, the Group focused on the following this year:

Code of Conduct and Anti-Corruption Code

Employees can consult the Sartorius Code of Conduct and the Sartorius Anti-Corruption Code; initial trainings have been completed and implemented as a controlled operation.

These codes are subject to reviews and revisions as required by amended legislation. In addition, all employees of the company and of the Group are made aware of these codes and must ensure compliance with them on a daily basis.

Corporate Transactions

The company complies with the Recommendation of the Autorité des Marchés Financiers of November 3, 2010, and with the AFEP-MEDEF Code, as revised in June 2018. Thus, transactions involving the purchase or sale of the company's securities or financial instruments are prohibited during the periods between the date on which managers, persons considered managers under the law, and any person having regular or occasional access to privileged information are aware of precise information on the course of business or prospects that, if made public, could have a significant influence on the price and the date on which the information is made public.

In addition they are also prohibited for a period of:

- fifteen calendar days prior to the date of publication of the annual and semi-annual financial statements of the company,
- fifteen calendar days, preceding the date of publication of the quarterly information, this day included.

At the beginning of each calendar year, the company prepares and distributes a schedule setting out the periods during which trading in the company's securities is prohibited, specifying that the days indicated do not prejudice the existence of other closed periods resulting from the knowledge of specific information that directly or indirectly concerns the company, which, if it were made public, could have a significant influence on the share price of the company's shares.

In accordance with the recommendations of the AFEP-MEDEF Code and the Autorité des Marchés Financiers Recommendation No. 2010-07 of November 3, 2010, hedging transactions of any kind, on the company's shares with regard to stock options are prohibited.

Mid-Term Prospects

The Group will continue to work on Internal Control issues by strengthening its approach to risk mapping and risk management. This process will be based on elements of the AMF Internal Control Reference Framework. In addition, the process of defining mandatory minimum standards of internal controls applying to all Group companies has been followed by publishing the Group Internal Controls Handbook and will be pursued further in 2019.

Forecast Report

Continued High Growth in the Biopharmaceutical Industry

Strong, long-term trends drive growth in the pharmaceutical industry, which is almost entirely independent of business cycles. Market observers estimate that growth of the world's pharmaceutical market will reach between 3% and 6% per year during the period up to 2022. Experts forecast that the biopharma segment of the pharmaceutical market, which has been enjoying particularly strong growth for years, will continue to outperform the market. Forecasts anticipate average annual growth of around 8% or 9% through 2022, which would increase market volume from a current €217 billion to €300 billion. The share of biological medications and vaccines in the total revenue generated by the global pharmaceutical market is expected to continue rising.

In coming years, the most dynamic market will likely be China. Although the biopharmaceutical market there is still in its infancy, the country offers especially high growth potential owing to favorable policy conditions, an increasing number of domestic biotech companies and rising demand for advanced biopharmaceuticals. Experts also anticipate considerable growth in the United States and Europe, driven in particular by a growing need for medications for aging societies as well as the rising number of chronically ill and multi-morbid patients. In addition, more and more medications are being approved. For example, biopharmaceuticals are increasingly being used in yet-to-be fully explored therapeutic areas and in the treatment of rare diseases that have so far been untreatable. Innovative types of therapy for regenerative medicine and new substance classes, such as antibody-drug conjugates (ADCs), are increasing the

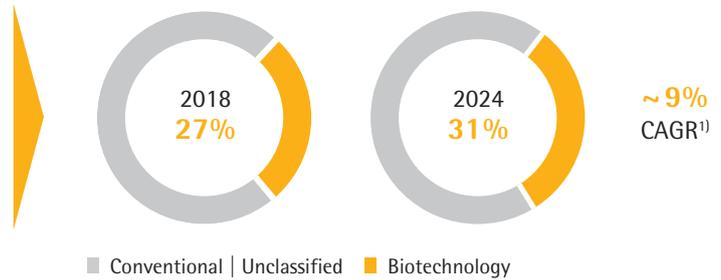
number and range of approved biopharmaceuticals as well as necessitating investments in innovative production technologies.

This relatively young biopharmaceuticals segment is driving sector growth with its high innovative power, as reflected in the strong research and development pipelines. Of the estimated 10,000+ medications in R&D pipelines, over 40% are based on biological manufacturing processes. These include more than 950 biosimilars and 550 biobetters, which are generic versions of biologic agents with better efficacy or fewer side effects than the original compounds.

Biosimilars are contributing increasingly to the growth of the biotechnology market. Governments in emerging and developing countries are fostering the creation of domestic production capacities intended to meet the rising demand for medications, which in turn encourages the founding of new biotech companies. The biosimilars market in industrialized countries is also likely to expand considerably in coming years due to the expiration of patents for high-volume biopharmaceuticals and an increasing number of approved biosimilars. In addition, the regulatory, patent-law and marketing challenges that have slowed progress in the past will likely decrease gradually. Against this backdrop, current estimates indicate that by 2022, the market could grow by an annual average of 30% and amount to a volume of around €18 billion.

Biopharma: A Growing Market

- Growing & aging population
- Increasing access to healthcare
- Strong R&D pipelines
- Emerging biosimilars market



¹⁾ Evaluate Pharma®: World Preview 2018, Outlook to 2024; June 2018; CAGR 2018 to 2024

The biopharmaceutical industry must meet a growing demand for medications while also producing an increasing number of approved medications and new types of therapy. For these reasons, industry observers expect that worldwide bioreactor capacities will continue to expand at a similar pace in the years to come. At the same time, the industry faces rising cost pressure. This increases the significance of innovations for boosting flexibility and cost efficiency in biopharmaceutical research and production. In the future, the biopharmaceutical market will shift away from a low number of especially high-volume medications that account for a majority of total production volume towards an expanding range of products for smaller groups of patients. What's more, technological progress leads to ongoing improvements in the productivity of biopharmaceutical production processes. According to the research and consulting institute BioPlan, manufacturers will therefore likely rely increasingly on single-use technologies for the commercial production of many new medications. Particularly in the case of relatively small batches, single-use technologies already ensure more cost-effective production than conventional stainless-steel units. To master these challenges, more and more pharmaceutical companies are relying on digitalization and automation as well as innovative software solutions for controlling and optimizing their processes.

of the biopharmaceutical industry and the business-friendly climate. In Europe, experts anticipate growth of 3.3% – although especially in this region, macroeconomic and political uncertainties constitute a risk. As before, market observers expect the highest growth rates in Asian countries such as China and India, in which the individual labor markets are likely to grow around 7.2% to 8.7% in 2019.

Sources: IQVIA Institute: 2018 and Beyond: Outlook and Turn-ing Points, March 2018; Evaluate Pharma: World Preview 2018, Outlook to 2024, June 2018; BioPlan: 15th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2018; Frost & Sullivan: 2018 Mid-year Report: Forecast and Analysis of the Global Market for Laboratory Products, May 2018; BCC Research: Biosimilars: Global Markets, March 2018

Labor Market Remains Stable while Macroeconomic Risks Increase

According to Frost & Sullivan, global demand for laboratory products is likely to continue increasing, with growth of 3.8% in 2019. Budget increases for academic and public research institutes should fuel growth. Risks could arise from a large downturn in global economic growth, because the demand for laboratory products is subject to macroeconomic effects. The U.S. market is expected to generate growth of 3.5%, in part due to the sustained strength

Future Business Development

Our 2019 guidance reflects the sector environment and economic trends, as well as the opportunities and risks outlined in this Annual Report. All forecasted figures are given in constant currencies; potential acquisitions are not considered.

Sartorius Stedim Biotech expects continued profitable growth in 2019. Consolidated sales revenue is projected to increase by about 7% to 11%. This forecast reflects the changes to the sales agreement with the Lonza group for cell culture media. Without these changes, sales growth would probably be approximately 3 percentage points higher.

Regarding profitability, management forecasts that the company's underlying EBITDA margin will increase by slightly more than one percentage point over the prior-year figure of 28.2%. Of this figure, approximately half a percentage point is expected to be an operational increase, whereas the remainder will result from changes to the IFRS accounting rules.¹⁾

The ratio of capital expenditures to sales revenue is projected to be around 11%, down from the year-earlier figure of 14.6%. Key investment projects include completing expansion of the Puerto Rican site for single-use products and increasing production capacities in Germany.

Concerning financial position, management projects that the ratio of net debt to underlying EBITDA will be slightly below the previous year's level of 0.4 reported.

In spite of countermeasures already taken, a disorderly exit of the United Kingdom from the EU may have a certain impact on our supply chain, yet a reliable forecast of possible effects cannot be given at the present time.

¹⁾ IFRS 16 required to be applied as of 2019 regulates accounting of leasing contracts. Ultimately, this will result in the disclosure of longer-term lease payments as depreciation and, accordingly, to a somewhat higher EBITDA, among other things. This will not entail any material changes concerning the Group's relevant net profit or earnings per share.

Financial Statements of the Parent Company Sartorius Stedim Biotech S.A. as of December 31, 2018

Financial Statements of the Parent Company

Sartorius Stedim Biotech S.A. is the parent company of the Group. The company is a mixt holding Company. The company from now on is managing investments of the Group and reals estates for the French Companies.

In 2018, sales revenue generated at Sartorius Stedim Biotech S.A. was €K 1,999 relative to €K 2,198 in 2017. The operating profit is €K -2,371 versus €K -3,197K in 2017. The net financing income totaled €K 48,576 versus €K 47,108 in 2017.

The net profit for 2018 is €K 49,521 compared to €K 49,463 in 2017.

Appropriation of the Net Profit

The ASM will suggest to appropriate the net profit of €49,521,306 for the reporting year of 2018. as follows:

- The following amount is to be added to this balance:
Year-earlier profit carried forward: €34,345,883
- This would yield a distributable profit of €83,867,189
- Total amount of dividends to be disbursed to shareholders: €52,540,761
- Balance resulting from disbursement: €31,326,428

The remaining amount of €31,326,428 is to be carried out to the next year.

Dividends of the last three financial years (information updated as of 1st January 2018)

The table below makes the list of the amount of the dividend per share distributed, since 2015, as well as the tax provisions applicable.

Exercise	Dividend ¹⁾	Amount eligible for the 40% abatement	Amount not eligible for the 40% abatement	Dividend per shares ¹⁾
2017	42,402,887	42,402,887	0	0.46 €
2016	38,713,209	38,713,209	0	0.42 €
2015	30,734,476	30,734,476	0	2.00 €

¹⁾ Prior deduction of social contribution on the dividend paid to physical person.

Proposition of dividend for the 2018 financial year

The Board of Directors has decided to propose to the 26 March 2019 Annual Shareholders' Meeting a net dividend of 0,57 euros, per share for the 2018 financial year in comparison with €0.46 for 2017.

The dividends are distributed to the shareholders in ratio with the proportion of the capital held by each shareholder.

The dividend will be paid on 2 April 2019.

Dividend distribution policy

The company follows a policy of dividend distribution linked on one part to the Group's profit over the financial year concerned and on another one to the Group's predictable evolution and profitability.

The 3 April 2018 Shareholders' Meeting voted a net dividend of 0.46 euro per share. The payment of the dividend was paid on 11 April 2018.

Dividends and interim dividends paid and unclaimed are prescribed after five years in favor of the State, from their date of payment (article 2277 of the Civil Code).

Elements likely to have an impact in the event of a public offer

Pursuant to article L. 225-100-3 of the French Commercial Code, an element is likely to have an impact in the event of a public offer: the first shareholder of Sartorius Stedim Biotech S.A. holds a significant percentage of its capital and voting rights.

Sartorius Stedim Biotech S.A. Share Capital

Share Capital as of December 31, 2018

As of 31 December 2018, the share capital amounts to eighteen million four hundred and thirty-six thousand thirty-eight euros (€18,436,038). It is divided into twenty two million one hundred and eighty thousand one hundred and ninety (92,180,190) shares worth twenty cents euros (€0,20) each, all fully subscribed and paid up (Heading I, Article 6 of the bylaws), all of which are entitled to the dividend for the financial year 2018, with the exception of shares held by the Company.

Date	Nature of the transaction	Share par value	Share capital increase	Share premium	Number of new shares	Number of shares after the transaction	Share capital after the transaction
1 st half of 2012	Exercise of share subscription options	0.61	5,098.0	173,446.0	8,358.0	17,034,306	10,390,926.6
2 nd half of 2012	Exercise of share subscription options	0.61	4,270.0	202,300.0	7,000.0	17,041,306	10,395,196.6
Year 2013	Exercise of share subscription options	0.61	610.0	8,620.0	1,000.0	17,042,306	10,395,806.6
Year 2014	Exercise of share subscription options	0.61	9,541.6	134,834.0	15,642.0	17,057,948	10,405,348.2
Year 2014	Reduction of Capital: Cancellation of Treasury Shares	0.61	-1,036,213.1		-1,698,710.0	15,359,238	9,369,135.1
Year 2014	Increase of Capital: nominal value change	1.00	5,990,102.8			15,359,238	15,359,238.0
Year 2015	Exercise of share subscription options	1.00	8,000.0	174,880.0	8,000.0	15,367,238	15,367,238.0
Year 2016	Reduction of Capital: Cancellation of Treasury Shares	1.00	-1,642,095.0		-1,642,095.0	13,725,143	13,725,143.0
Year 2016	Increase of Capital: new actions created	1.00	1,638,222.0		1,638,222.0	15,363,365	15,363,365.0
Year 2016	Increase of Capital: nominal value change	0.20	3,072,673.0		3,072,673.0	92,180,190	18,436,038.0
Year 2017						92,180,190	18,436,038.0
Year 2018						92,180,190	18,436,038.0

Sartorius Stedim Biotech S.A. Shareholdings as of December 31, 2018

Situation of Sartorius Stedim Biotech S.A. Shareholdings

Shareholders	Shares	Voting rights
More than 50%	Sartorius AG	Sartorius AG
More than 10% but less than 50%	None	None
More than 5% but less than 10%	None	None

Over the past three years, the ownership of Sartorius Stedim Biotech share capital has been distributed as follows:

Shareholders	December 31, 2016			December 31, 2017			December 31, 2018		
	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights	Number of shares	% of share capital	% of voting rights
Sartorius AG	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%
Single voting rights									
Double voting rights	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%
Single voting rights									
Double voting rights	0	0.0%	0.0%						
Total Sartorius Group	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%	68,450,400	74.3%	84.5%
Treasury shares									
Personnel and other shareholders									
General public	23,729,790	25.7%	15.5%	23,729,790	25.7%	15.5%	23,729,790	25.7%	15.5%
Single voting rights	22,439,112	24.3%	13.9%	22,439,112	24.3%	13.9%	22,439,112	24.3%	13.9%
Double voting rights	1,290,678	1.4%	1.6%	1,290,678	1.4%	1.6%	1,290,678	1.4%	1.6%
Total shares	92,180,190	100.0%	100.0%	92,180,190	100.0%	100.0%	92,180,190	100.0%	100.0%

Legal Disclosure of Thresholds Crossed

No legal disclosure of thresholds crossed has been registered during the fiscal year under study.

	Shares	% Issued Capital	Voting rights	% Voting rights
Sartorius AG	68,450,400	74.30	68,450,400	84.56
Total Sartorius AG	68,450,400	74.30	68,450,400	84.56

Control of the Company as of December 31, 2018

Sartorius AG holds, directly or indirectly, 74.3% of the share capital and 84.5% of the outstanding voting rights. Treasury shares are without voting rights.

Staff Shareholdings

None

Treasury Shares Held by Sartorius Stedim Biotech S.A.

None

Unpaid Capital

None

Authorized but Unissued Capital

None

Securities Not Representative of the Share Capital

None

Authority granted by the Annual Shareholders' Meeting to the Board of Directors still valid.

DELEGATION GRANTED FOR INCREASE IN CAPITAL BY THE SHAREHOLDER'S MEETING TO THE BOARD OF DIRECTORS

Delegation of competence

Object - Duration	Limit	Use in 2018
Ability to issue shares and/or securities giving access to the share capital of the company and/or securities giving the right to the allotment of the debt instruments, with preferential subscription rights of the shareholders.	The limit is €2,000,000 corresponding to the maximum nominal amount of the increase of the share capital and to the maximal nominal amount of the debt instruments and €500,000,000 on the maximum overall limit of the maximum nominal amount of the debt instruments.	None
Granted for a period of 26 months as from 03 April 2018		
Ability to issue shares and/or securities giving access to the share capital of the company and/or securities giving the right of the allotment of debt instruments, without preferential subscription rights of the shareholders – through public offerings.	The limit is deducted on the overall limit of €2,000,000 (increase of the share capital) and on the overall limit of €500,000,000 (debt instruments).	None
Granted for a period of 26 months as from 03 April 2018		
Ability to issue shares and/or securities giving access to the share capital of the Company and/or securities giving the right to the allotment of debt instruments, without preferential subscription rights of the shareholders - through private placements as set forth in article L411-2 II of the French Monetary and Financial Code.	The limit is deducted on the overall limit of €2,000,000 (increase of the share capital) and on the overall limit of €500,000,000 (debt instruments).	None
Granted for a period of 26 months as from 03 April 2018		
Ability to increase the number of shares and/or securities giving access to the share capital of the Company to be issued in the event of a share capital increase with or without preferential subscription rights of the shareholders.	The limit amount 15% of initial issue of shares. It is deducted on the overall limit of €2,000,000 (increase of the share capital)	None
Granted for a period of 26 months as from 03 April 2018		
Ability to issue shares and/or securities giving access to the share capital of the Company, as consideration for securities tendered through public exchange offers initiated by the Company, without preferential subscription right of the shareholders.	The limit is deducted on the overall limit of €500,000,000 (increase of the share capital) and on the overall limit of €2,000,000 (debt instruments).	None
Granted for a period of 26 months as from 03 April 2018		
Ability to increase the share capital through the capitalization of reserves, earnings or premiums or any other sum upon which capitalization would be permitted.	The limit is €2,000,000 (corresponding to the maximum nominal amount of the increase of the share capital); It is a independent limit.	None
Granted for a period of 26 months as from 03 April 2018		
Ability to issue shares and/or securities giving access to the share capital giving the right to the allotment of debt instruments, without preferential subscription rights of the shareholders and reserved for members of saving plans.	The limit is €2,000,000 corresponding to the maximum nominal amount of the increase of the share capital; it is an independent limit.	None
Granted for a period of 26 months as from 03 April 2018		

Other Securities Giving Access to the Share Capital

None

Stock Options

None

Share Capital Dilution

None

Share Subscription Options Granted to Each Senior Executive of the Company and Options Exercised by Them in Fiscal 2018

None

Share Subscription Options Granted to the Ten Top Non-senior Executive Beneficiaries and Options Exercised by Them in the 2018 Fiscal Year

None

Options Exercised During the Fiscal Year

All options have been exercised in 2015. The stock option plans are now expired.

in €	2017	2016	2015	2014	2013
Dividend per share for the fiscal year	0.46	0.42	2.00	1.30	1.20
Number of shares	92,180,190	92,180,190	15,367,238	15,359,238	15,343,596
Dividend corrected per share¹⁾	0.46	0.42	2.00	1.30	1.20

¹⁾ Compared to the number of shares as of December 31, 2016

Senior Executives

Information on Sartorius Stedim Biotech S.A. senior executives and a list of the positions they hold or have held over the past five years are included in the Corporate Governance report.

Share Subscription Plan

The stock option plans are detailed in the tables below. The authority delegated to the Board of Directors for setting up a new plan has recently expired. The Board of Directors no longer has any such delegated authority to set up any new plan.

Share Subscription Warrants

Sartorius Stedim Biotech S.A. has not issued any share subscription warrants.

Pledging of Shares

No Sartorius Stedim Biotech S.A. shares were pledged.

Pledging of Assets

None

Directors' Meeting Attendance Fees

Directors' meeting attendance fees are calculated on an annual basis. The method of calculating these fees remains the same. It is as follows.

The directors receive directors' meeting attendance fees whose amount and allocation are established by the Board of Directors in consideration of the limits set by the ASM:

- Each Director receives a fixed remuneration of €25,000 per year, to be paid after the annual financial statements have been adopted by the Annual Shareholders' Meeting and which falls due for payment after the Annual Shareholders' Meeting. The chairman of the Board receives twice this amount. Furthermore, members of the Board receive an attendance fee of €1,200 per meeting and reimbursement of its expenses in addition to the annual remuneration.
- For their membership of any committee each Director receives a lump-sum amount of €4,000 per full year of membership in addition to the attendance fee of €1,200. Insofar as they hold the chair, instead of this, they receive a lump-sum amount of €8,000 per full year that they hold the chairperson in addition to the attendance fee. The remuneration for the activities on any committee is

due together with the remuneration under the terms of previous Subsection hereof.

- Any value-added tax is reimbursed by the corporation, insofar as the members of the Board are entitled to invoice the corporation separately for the value-added tax and they exercise this right.
- All these resolutions will not be applied for the Directors that got an executive top management activity at the group level. In this context, the executive corporate officers will not receive any remuneration for their membership.

A total of €268,800 is paid in directors' meeting attendance fees for 2018.

		Base fixed salaries € in K	Annual incentive € in K	Long Term Incentive € in K	Other € in K	Stock options € in K	Departure Indemnity € in K	Directors' meeting attendance fees € in K
Total 2017	3,056.0	832.0	363.0	1,846.0	15.0	0.0	0.0	0.0
Total 2018	2,522.0	863.0	455.0	1,189.0	15.0	0.0	0.0	0.0
Joachim Kreuzburg ¹⁾ 2017	3,056.0	832.0	363.0	1,846.0	15.0	0.0	0.0	0.0
Joachim Kreuzburg ¹⁾ 2018	2,522.0	863.0	455.0	1,189.0	15.0	0.0	0.0	0.0

¹⁾ For more details please refer to the Chapter Corporate Governance on pages 57 to 87.

Independent Auditors

The independent auditors for Sartorius Stedim Biotech S.A. are:

- KPMG S.A., represented by John Evans. Alternate auditor: Salustro Reydel.
- Deloitte & Associés, represented by Vincent Gros.

Payment Terms for Trade Payables & Receivables

	Article D. 441-1 st : Invoices received but not paid at the date of the end of the exercise whose term has expired					Article D. 441-2 nd : Invoices sent but not paid at the date of the end of the exercise whose term has expired					Total
	0 day (indicative)	1 à 30 days	31 at 60 days	61 at 90 days	91 days and after	0 day (indicative)	1 à 30 days	31 at 60 days	61 at 90 days	91 days and after	
(A) Repartition of late payment											
Number of concerned invoices	31					4					4
Total Amount of concerned invoices (Including all taxes)	795,703					78,818	0				78,818
Percentage of Total amount of purchases including taxes for the exercise	15%										
Percentage of sales including taxes for the exercise						3%					3%
(B) Invoices excluded from (A) relating to disputed and contentious Receivables non recorded											
Number of invoices excluded	0										
Total amount of excluded invoices including taxes	0										
(C) Reference payment terms used (Contractual or statutory period - article L. 441-6 or article L. 441-3 of Commerce Code)											
Payment terms used for the payment term calculation		Contractual time limit:	30 days			Contractual time limit:	30 days				
		Legal time limit:				Legal time limit:					

Five-Year Financial Results of the Parent Company Sartorius Stedim Biotech S.A.

€ in K	2014	2015	2016	2017	2018
Share capital at end of period					
Share capital (capital stock)	15,359	15,359	18,436	18,436	18,436
Number of shares outstanding	15,359,238	15,359,238	92,180,190	92,180,190	92,180,190
Transactions and financial performance					
Sales revenue (excl. VAT)	1,465	1,593	1,843	2,198	1,999
Profit before tax, employee profit sharing plan, amortization, depreciation and provision expenses (and reversals)	25,967	29,343	59,635	55,840	54,135
Income tax	468	-653	4,543	5,552	3,316
Contribution to employee profit-sharing plan	0	0	0	0	0
Net profit	24,845	29,312	54,324	49,463	49,521
Dividends paid or proposal of dividend	18,412	19,967	30,734	38,713	42,403
Earnings per share					
EPS after tax and employee profit-sharing, but before amortization, depreciation and provision expenses	1.66	1.95	0.60	0.55	0.55
EPS after tax and employee profit-sharing, amortization, depreciation and provision expenses	1.62	1.91	0.59	0.54	0.54
Dividend per share	1.20	1.30	0.33	0.42	0.46
Personnel					
Workforce size	0	0	0	0	0
Personnel costs	0	0	0	0	0
Social security costs	0	0	0	0	0