Sartorius Stedim Biotech

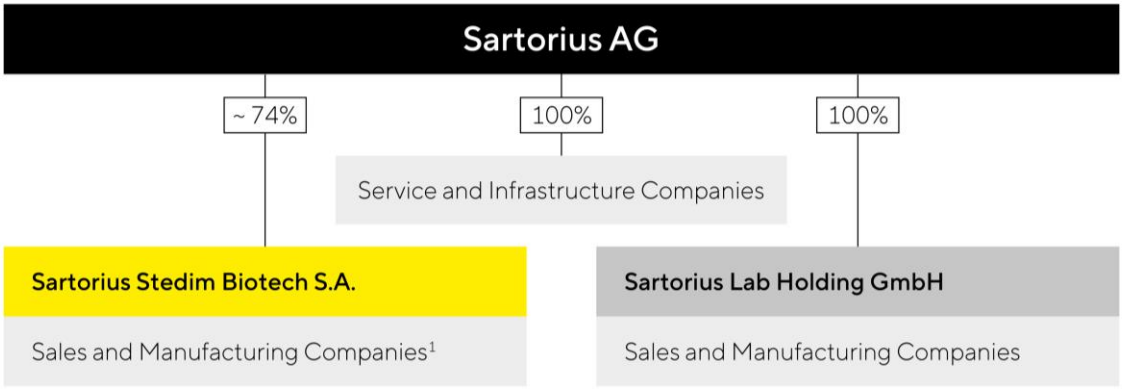
Management Report

Extract from the Universal Registration Document 2023

Simplifying Progress

SARTORIUS

2.1 Structure and Management of the Group



1 The full list of companies included in the scope of consolidation of Sartorius Stedim Biotech as of December 31, 2023, is set forth in Note 7 to the consolidate financial statements

Group Legal Structure

Sartorius Stedim Biotech is a globally operating company with subsidiaries in more than 25 countries and more than 10,600 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 an international leading partner for life science research and the biopharmaceutical industry and is 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 eight members, one executive director and seven nonexecutive directors. Due to the shareholding structure of the Company, the composition of the Board of Directors and its Committees reflects the aim by our controlling shareholder of a long-lasting balance between the Directors representing these shareholders, the independent Directors, the executive Directors and the Director representing the employees. The Company's controlling shareholder Sartorius AG takes its own responsibility towards the other shareholders, direct and distinct from the Board of Directors' one. It takes particular care to avoid possible conflicts of interests, ensures transparent information provided to the market and fairly takes all interests into account (see the paragraph on the balance of powers and the composition of the Board of Directors on page 83). In addition, Sartorius AG complies with all duties regarding transparency and communication as required by German and European regulation (https://www.sartorius.com/en/company/about-sartorius-ag/compliance).

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 Corporate Governance section.

Changes in the Group Portfolio

Sartorius Stedim Biotech expanded its product portfolio in the reporting year by acquiring the French company Polyplus. The transaction was completed in July 2023, once the required approvals by the authorities had been granted.

Polyplus is a provider of innovative cell and gene therapy technologies. Established in 2001, the company is based in Strasbourg, France, with sites in France, Belgium, the United States, and China, employing around 270 people. The transfection reagents developed and produced by Polyplus are success-critical components in the manufacture of viral vectors used in cell and gene therapies as well as other new medical therapy methods. The company has recently enlarged its focus beyond this field and, through acquisitions in adjacent technologies, such as plasmid development and protein and plasmid manufacture, expanded its offering for gene therapies and genetically modified cell therapies.

Moreover, in June 2023, Sartorius Stedim Biotech acquired Sartonet Seperasyon Teknolojileri Anonim Şirketi, which is based in Istanbul, Türkiye. The company imports and distributes the products of the Sartorius Group in Türkiye and in addition offers its pharmaceutical customers a wide range of services, such as process development, technical support, calibration, and training. Sartonet had around 40 employees at the acquisition date.

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 the determination of the variable remuneration component for the Board of Directors and managers.

A key management parameter that Sartorius Stedim Biotech uses to measure the development of its size is currency-adjusted growth of sales revenue, i.e., sales in constant currencies. The key indicator for managing profitability is the adjusted EBITDA margin, which is based on EBITDA adjusted for extraordinary items, i.e., underlying EBITDA.

For a definition of this term and more information on its presentation, see the Glossary on page 242.

With regard to the Sartorius Stedim Biotech Group's debt financing capacity, the ratio of net debt to underlying EBITDA serves as the key metric. It is calculated as the ratio of net debt to underlying EBITDA for the last twelve months, including the pro forma amount contributed by acquisitions for this period. Furthermore, the CAPEX ratio, i.e., capital expenditures in proportion to sales revenue, represents a key control parameter.

The following financial and nonfinancial 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
- Employee Net Promoter Score (ENPS)
- Reduction of CO_2 emission intensity

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 the underlying EBITDA margin. The expected CAPEX ratio as well as a forecast for the ratio of net debt to underlying EBITDA are also indicated for the Group.

2.2 Business Model, Strategy, and Goals

Market and Strategic Positioning

As a leading partner of the biopharmaceutical industry, Sartorius Stedim Biotech helps its customers to develop their production processes and manufacture biotech medications and vaccines more efficiently.

Biopharmaceuticals are integral components of advanced medicine and are used to treat many illnesses, mostly of a serious nature. However, long development times and complex production make these medications very expensive. This leads to high healthcare costs in industrialized countries and to the situation that patients in less developed countries are often excluded from treatment with such drugs. The development of a biopharmaceutical medication is a long haul: it takes more than ten years on average to bring a new drug out on the market, costing more than two billion euros. On top of this, biotechnological manufacturing processes for such high-tech medications are demanding and must be developed individually for each biologic compound. As a pioneer and technology leader in the biopharma sector, Sartorius Stedim Biotech with its products and services is enabling its customers to make their production processes easier and more efficient so that advanced therapeutics can reach the market faster and become accessible for more people worldwide. Therefore, the United Nations' sustainability goal "Good Health and Well-Being" is an integral component of Sartorius' business model.

The maturity and intensity of competition in this comparably young industry are successively increasing. To support customers in meeting this challenge, Sartorius Stedim Biotech is constantly developing its portfolio further. A key competitive advantage is the broad understanding of applications based on its clear focus on the sector. The company is thoroughly familiar with customers' value-added chains and understands the interaction of the employed systems particularly well. A further success factor of the company is that it offers highly differentiating technologies. The innovative power rests on three pillars: the company's own specialized product development, alliances with partners, and the integration of innovations through acquisitions.

With the biopharma industry, Sartorius Stedim Biotech is focusing on an attractive market that is characterized by strong growth momentum in view of long-term trends and significant innovative strength. Medical progress provides positive impetus, leading to the discovery and approval of new biopharmaceuticals. The biopharmaceutical industry is thus increasingly relying on advanced therapies, such as cell and gene therapeutics and biotech tissue products. Further 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. Biosimilars, the generic versions of reference biologics that have lost their patent protection, account for a share of the biopharma market that is currently still small but especially fast-growing. As a result of these factors, the volumes of biotech medications and the demand for the appropriate production technologies are steadily increasing, with market growth largely independent of business cycles.

Products & Services

Sartorius Stedim Biotech offers 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. The product range includes cell lines, cell culture media, and other components for the development and manufacture of advanced therapies, bioreactors, and a wide range of products for the 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

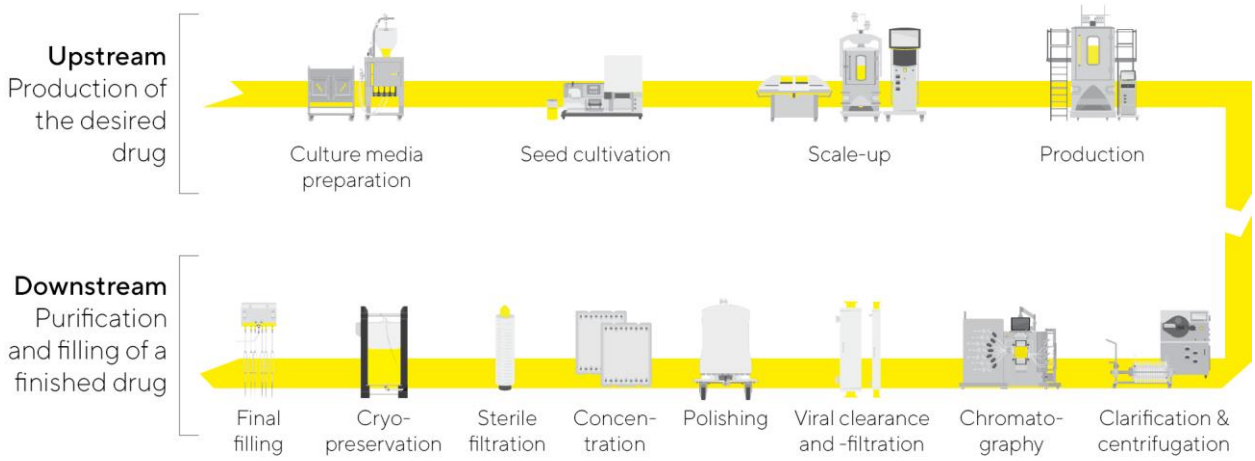
processes of biopharmaceutical development and production. In its core technologies, the company has leading market positions with high double-digit market shares.

The breadth of the company's product portfolio is one of the key factors that differentiates it from many of its competitors. Sartorius Stedim Biotech can provide customers with complete process solutions from a single source, as well as assisting with preceding project planning, process integration, and subsequent validation. The company's products are used in the manufacture of all classes of medical drugs, from vaccines and monoclonal antibodies to advanced viral vector-based gene therapeutics.

Repeat business with sterile single-use products accounts for about three-quarters of the company's sales revenue. These offer customers cost advantages, flexibility, and less resource usage, and thus a better ecological footprint compared with conventional processes employing reusable stainless steel components. The high share of recurring revenues is also bolstered by the strict regulatory requirements on the part of the customers. Because health authorities validate production processes as an integral part of an application for approval of a new medical drug, the components initially validated can be replaced only at considerable expense once they have been approved. Beyond this, the company's broad and stable customer base that is primarily addressed directly through a specialized sales force also contributes to this favorable risk profile.

The strong strategic positioning and the above-average expansion of the sector are a good foundation for profitable growth in the future as well.

Technologies for the Entire Added-Value Chain in Biopharmaceutical Production



Schematic illustration

Regulatory aspects

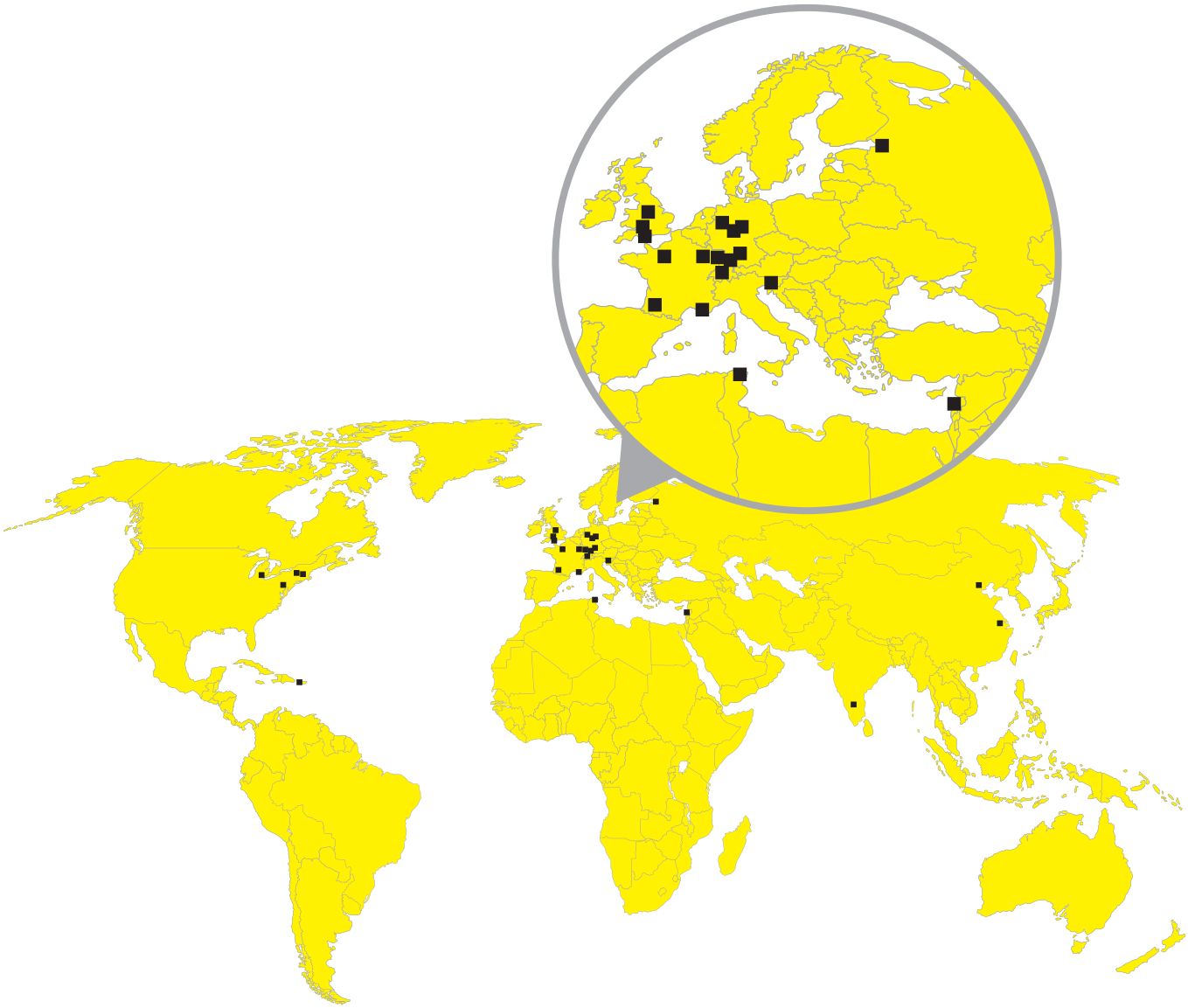
Sartorius Stedim Biotech's products are primarily used in the biopharmaceutical industry for critical production processes such as drug manufacturing. Our customers are subject to regulation by national regulatory authorities such as the Food & Drug Administration (FDA) in the USA, the European Medicines Agency (EMA) in Europe and other national and international bodies involved in the approval of new drugs and in the maintenance of approval status for these drugs. Compliance with the regulations of other relevant authorities (e.g. Environmental Protection Agency or Department of Agriculture in the USA) is also important. With regard to its own portfolio, some specific products of Sartorius Stedim Biotech are also subject to the same national regulatory authorities as our customers and subject to extensive approval, registration and reporting obligations in numerous countries. In these cases, the strict application of Good Manufacturing Practice, as described in the Eudralex guidelines Vol. 4 "The rules governing medicinal products in the European Union" and the ICH guidelines (International Council for Harmonization of Technical Requirements

for Pharmaceuticals for Human Use), is implemented to ensure that the products are placed on the market safely and in compliance with these regulations.

The strict regulation of the pharmaceutical industry and the increasing requirements of the responsible authorities for patient protection and product safety result in a high demand for quality on the part of our customers. Through extensive quality assurance processes as well as quality controls and the use of modern manufacturing techniques in a classified cleanroom environment, Sartorius Stedim Biotech ensures that all products meet the highest quality standards and the stringent regulatory requirements. Furthermore, these manufacturing techniques and processes are subject to continuous review as part of improvement processes and are optimized in line with current requirements. Quality controls are carried out both within the manufacturing processes and as part of test procedures on the end products. In addition, quality assurance is maintained through the rigorous implementation of quality management systems defined according to recognized industry standards such as ISO 9001 and, where applicable, ISO 13485. This ensures that critical or essential product properties are continuously fulfilled. A strict product approval process also ensures that only products that meet the agreed specifications are shipped.

The effectiveness of the existing quality systems is confirmed by the successful completion of regular customer audits as well as by certification in accordance with ISO 9001 and, where applicable, ISO 13485.

Global Presence



Americas

Puerto Rico – Yauco
USA – Ann Arbor (MI), Hopkinton (MA), Marlborough (MA), New Oxford (PA)

Asia | Pacific

China – Peking, Shanghai
India – Bangalore

Europe | Middle East | Africa

France – Aubagne, Cergy, Lourdes, Pompey, Strasbourg
Germany – Bielefeld, Freiburg, Göttingen, Guxhagen, Ulm
Israel – Beit Haemek
Russia – St. Petersburg
Slovenia - Ajdovščina
Switzerland – Tagelswangen
Tunisia – Mohamdia
United Kingdom – Havant, Nottingham, Stonehouse

Medium-term planning until 2025 and 2028

In 2018, Sartorius Stedim Biotech presented its medium-term planning up to 2025, according to which sales revenue was projected at €2.8 billion with an underlying EBITDA margin of around 30%. These targets were raised twice in the following years and most recently envisaged sales revenue of around €4.4 billion with an underlying EBITDA margin of more than 35%. Against the backdrop of the weaker than expected market situation in the entire life science sector following the pandemic and the resulting temporary decline in sales and earnings, a review of the medium-term targets was announced in October 2023. The new medium-term ambition until 2028 communicated at the end of January 2024 replaces the previous planning until 2025.

Sartorius Stedim Biotech intends to continue its profitable growth course in the long term and expects to grow faster than the market. According to the new medium-term targets, the Group plans to achieve average annual growth in the low- to mid-teens percentage range over the five-year period to 2028 of which acquisitions are anticipated to contribute around a fifth. The underlying EBITDA margin is also expected to increase and reach above 35% in 2028. The margin target includes expenses of around 1 percent of Group sales revenue for measures to reduce the company's CO_2 emission intensity.

Forecasts have been prepared based on historical information and are consistent with accounting policies. All forecast figures are based on constant currencies, as in the past years. Management points out that the dynamics and volatilities in the industry have increased significantly in recent years. In addition, uncertainties due to the changed geopolitical situation, such as the emerging decoupling tendencies of various countries, are playing a greater role. This results in higher uncertainty when forecasting business figures.

The objectives are implemented through various growth initiatives with the following focal points:

Expansion of the Product Portfolio

Sartorius Stedim Biotech has a broad product portfolio that is aligned with the value chain of the biopharma industry and that the company is continuously expanding. The focus is on products that offer solutions for customers' needs and make the company's offering even more attractive from the customer's perspective. Aside from its own research and development activities and strategic partnerships, acquisitions that are complementary to or extend the company's strengths appropriately will remain part of the portfolio strategy. Due to high innovation dynamics, the company considers further additions to be possible on an ongoing basis across the entire breadth of the product portfolio. When identifying suitable companies, Sartorius Stedim Biotech considers the following criteria in particular: complementarity of technologies to its existing portfolio; strong market positioning, for example, through innovative products with unique selling propositions; integration capability; appropriate valuation; and growth and profitability profile.

Regional Growth Initiatives

Sartorius Stedim Biotech continued to expand its production capacity in the reporting year. Capital expenditures totaled approximately €473.6 million in 2023 and were used to expand sites in Germany, France, Puerto Rico, the USA, and South Korea, among other countries.

North America and Asia are the key focal areas of the regional growth strategy. The USA is the world's largest market for bioprocess equipment. Yet because it is home to the company's main competitors, Sartorius Stedim Biotech formerly had lower market share in this region than in Europe and Asia. By systematically strengthening its sales and service capacities, Sartorius Stedim Biotech has gained market share in the USA in recent years.

In Asia, one focus is on the construction of a new production facility in South Korea, which offers excellent growth prospects with its dynamically expanding biopharma market.

Optimization of Work Processes

Sufficient production capacity and a powerful supply chain are an essential foundation of future growth. In recent years, Sartorius Stedim Biotech has substantially expanded its capacities for nearly all product groups at various Group sites in order to optimize delivery times and reliably maintain delivery capability even in the event of local transport restrictions.

Sartorius Stedim Biotech is driving forward digitalization and automation in many areas to further accelerate and enhance processes and, wherever meaningful, to standardize such processes throughout the Group.

This also includes extending the company's activities in the areas of e-commerce, digital marketing, and analytics, as well as on the topic of IT security.

2.3 Sector Conditions

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

Further Growth in the Biopharmaceutical Market

After continuous – and in some cases significant – expansion in the global pharmaceutical market in prior years, growth stagnated in 2023 according to EvaluatePharma. Even revenue generated with biopharmaceuticals, which commonly increases faster than that generated by the pharmaceutical market as a whole, remained constant at around $436 billion. This was primarily due to lower sales of coronavirus vaccines and therapeutics, which fell by more than half in the reporting year from the previous level of $100 billion. Biopharma's share of the total pharmaceutical market was unchanged at around 39%.

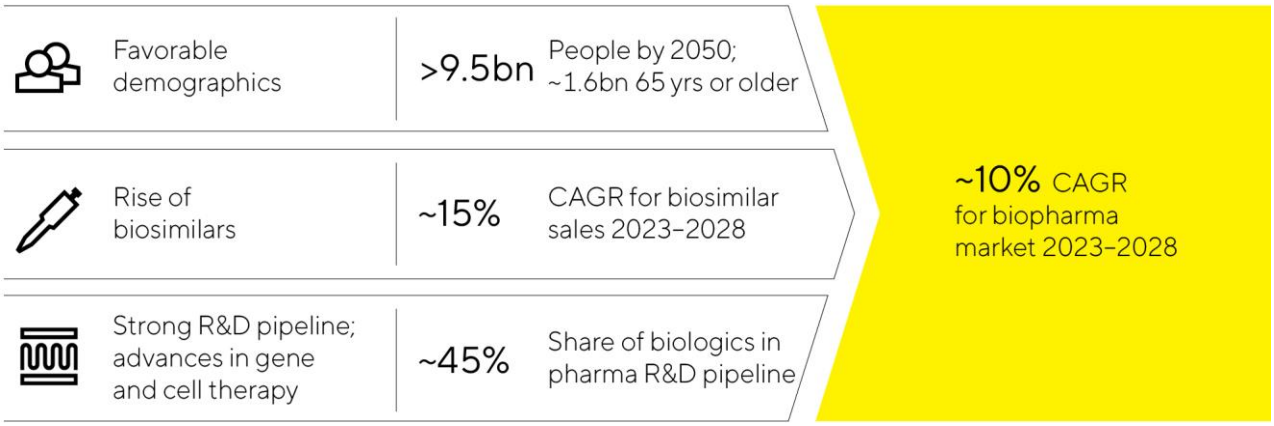
The leading manufacturers of bioprocess technology recorded declining sales in 2023 and repeatedly lowered their growth forecast communicated at the start of the year. The influencing factors were of a temporary nature and included in particular the sharp decline in Covid-19-related business and the reduction of elevated inventory levels. In addition, production levels at some biopharma companies were relatively low and investment activity was generally subdued after several years of intensive capacity expansion. Toward the end of the third quarter, the order situation recovered for some companies, and a gradual improvement in the business situation is expected for 2024.

The growth of the biopharma market fundamentally depends more on medium- to long-term trends than on short-term economic developments. Significant impetus here is provided by the globally increasing demand for drugs and the approval and market launch of innovative biopharmaceuticals. Other growth factors are the extension of the range of indications for already approved medications and their further market penetration. The number of new biopharmaceutical approvals by the U.S. Food and Drug Administration (FDA) remained high in the year under review, at 42 (2022: 31).

The growing significance and acceptance of biologics is reflected not only in their increasing share of sales revenue within the global pharmaceutical market but also in the development activities of the pharmaceutical industry. For example, biopharmaceutical compounds account for around 45% of the R&D pipeline. A growing number of active substances manufactured using biotech production methods is being approved for the treatment of rare illnesses that have been incurable so far. In this context, the pharmaceutical industry is increasingly focusing on advanced therapies, such as cell and gene therapeutics and biotechnologically processed tissue products. In 2023, more than 1,600 clinical trials with such treatment approaches were conducted, meaning that this area offers significant growth potential over the medium to long term. The rising number of approved biopharmaceuticals and an increasing variety of therapy types and substance classes, coupled with growing demand for medications, are the main drivers for the worldwide increase in production capacities for biopharmaceuticals.

Biosimilars, the generic versions of reference biologics that have lost their patent protection, are also playing an increasingly important role in the biotechnology market. According to market studies, their sales volume in 2023 remained modest at an estimated $29 billion, but is expanding at faster rates than the biopharma market as a whole. The market is expected to continue to grow strongly during the years to come, owing to the expiration of several patents for high-selling biopharmaceuticals and an increasing number of new approvals of biosimilars and market launches. Particularly in the USA, where development has been comparatively slow due to regulatory, patent-law-related, and marketing hurdles, market penetration is expected to accelerate significantly in the next few years. A compound annual growth rate of around 15% is expected globally through 2028.

Attractive Market Environment with Good Growth Prospects



Laboratory Market Continues to Grow

The global laboratory market had a total value of around $84 billion in the reporting year and, according to estimates by various market observers, is growing at an average annual rate of around 5% over the long term. Market growth is related, among other things, to the levels of research and development spending in the individual end markets, which is partly linked to economic development.

However, this applies to a lesser extent to labs in the pharmaceutical and biopharma industries, the leading customer groups for laboratory instruments and consumables: in this industry, demand is more strongly influenced by fundamental growth drivers, such as continuous research to find new active pharmaceutical ingredients. According to EvaluatePharma, sector-specific research spending increased by 7% to $262 billion in 2023. The investment focus is on the automation of process workflows and innovative analytical instruments that are equipped with enhanced or novel functionalities. Products from the field of bioanalytics, for example, have above-average growth rates within the laboratory market, and demand in the life science sector is generally growing faster than in other industries. In view of the above-average growth in previous years, this customer segment trended weaker in the reporting year, and the majority of leading suppliers of laboratory instruments and consumables recorded declines in sales revenue. In addition to the high basis for comparison, the reasons cited include restrained investment activity in the current interest rate environment, the persistently muted funding environment, especially for small and medium-sized biotech companies, and severe market weakness in China. Declining demand for Covid-19 test components also had a dampening effect.

Research and quality-assurance labs in the chemical and food industry are another customer group. This segment's demand for laboratory products depends in part on economic trends. Additional momentum can also be generated in this sector by regulatory changes, such as stricter requirements for quality control tests in the food industry. Demand from industrial end markets was generally robust in 2023 according to several leading laboratory product manufacturers, despite a weaker macroeconomic environment.

Academic and public-sector research institutions also use laboratory instruments and consumables manufactured by Sartorius. Growth in demand is related to such factors as government budgets and funding programs, all of which can vary from one country to another. In the USA, the National Institutes of Health (NIH) is the leading government agency for biomedical research and also the world's largest research funding agency. The NIH's budget has increased steadily over the past ten years, rising again by about 6.5% in the reporting year. The proposed budget for 2024 includes another slight increase. The European Union has likewise continuously scaled up its research spending in past budget cycles. Around €95.5 billion of research

and innovation funding is to be provided in the period from 2021 to 2027, an increase of 19% compared with the previous program. Many manufacturers of laboratory products recorded robust demand from academic and public research institutions in the reporting year.

Competitive Environment

The competitive environment of Sartorius Stedim Biotech is characterized by relatively high entry barriers arising in part from the biopharmaceutical industry's strong degree of regulation and its technological complexity. New players, 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 companies, meanwhile, are expanding their product range continuously. In this competitive landscape, Sartorius Stedim Biotech operates as a total solutions provider, covering the core process steps in biopharmaceutical production and preceding process development. It has leading market positions in key technologies, especially in the areas of bioreactors, filtration, and the transport and storage of liquids.

The principal competitors of Sartorius Stedim Biotech in the bioprocess area are certain business units of Merck KGaA, Danaher Corporation, and Thermo Fisher Scientific Inc. Thermo Fisher and Merck are also key players in the laboratory field. In addition, the company faces competition from smaller players in individual segments.

Sources: BioPlan: 20th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2023; Evaluate-Pharma: World Preview 2023, August 2023; Alliance for Regenerative Medicine: Sector Snapshot, August 2023; citeline: Pharma R&D Annual Review 2023, May 2023; Markets and Markets: Biosimilars Market – Forecast to 2028, 2023; SDi: Global Assessment Report 2023, June 2023; www.fda.gov

2.4 Group Business Development

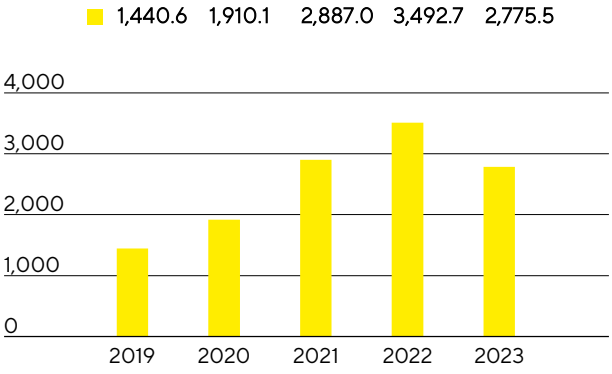
Sales Revenue and Order Intake

After the pandemic-related extraordinary business and inventory buildup by customers led to strong additional growth momentum in the years 2020 to 2022, the temporary normalization of demand expected by the company management set in during the reporting year. This was more pronounced than anticipated at the beginning of the year, and the reduction in customer inventories also lasted longer than expected, which led to numerous forecast revisions across the entire life science sector. Other industry-wide factors also had a dampening effect, such as relatively low production levels, the largely discontinued business with Russian customers, and an overall muted investment activity on the part of customers, primarily in China and the USA. Against this backdrop, Group sales revenue decreased by 18.7% in constant currencies[1] (organic:[2] -20.7%; reported: -20.5%) to €2,775.5 million. The recent acquisitions of Albumedix, Polyplus and the chromatography business of Novasep developed in line with expectations and contributed around 2 percentage points of non-organic growth. Excluding the pandemic-related business, the decline in constant currencies stood at around 14%.

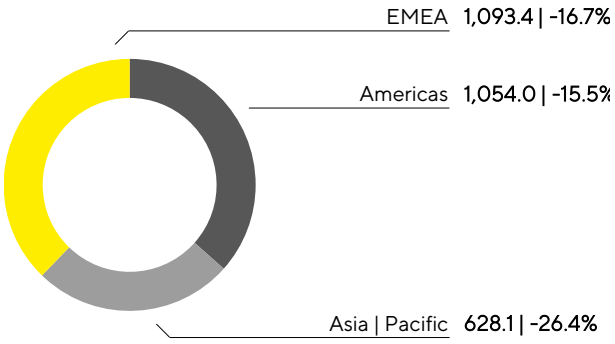
The temporarily weaker market environment was even more significantly reflected in order intake[3], which decreased by 23.6% in constant currencies (reported: -25.3%) to €2,476.1 million in the reporting year. In line with progress made by customers in reducing their inventories, business began to recover at the end of the third quarter, so that order intake was slightly above sales revenue in the fourth quarter.

A comparison of the actual business development and the forecast is shown on page 40.

Sales Revenue 2019 to 2023
€ in millions



Sales Revenue and Growth[1] by Region[4]
€ in millions unless otherwise specified



1 Constant currencies: Figures given in constant currencies eliminate the impact of changes in exchange rates by applying the same exchange rate for the current and the previous period.
2 Organic: Organic growth figures exclude the impact from changes in exchange rates and changes in the scope of consolidation.
3 Order intake: All customer orders contractually concluded and booked during the respective reporting period.
4 Acc. to customer location.

In terms of regional development, sales revenue declined in all regions due to the normalization of demand and the pandemic-related high prior-year base.

In the EMEA region, which accounted for around 39% of total Group revenue, sales fell by 16.7% to €1,093.4 million compared to the previous year, which was heavily influenced by business with vaccine manufacturers. The discontinuation of business with Russian customers dampened growth by slightly less than 4 percentage points.

In the Americas region, sales amounted to €1,054.0 million (-15.5%) against the backdrop of inventory reductions and low investment activity by customers in the USA. This corresponds to a share of around 38% of total Group revenue.

The reluctance to invest was even more noticeable in China and led to a significant decline in sales. This development also had a significant impact on business in the Asia | Pacific region as a whole, which stood at €628.1 million (-26.4%) and thus accounted for around 23% of total Group revenue.

All growth rates for the regional development are in constant currencies unless otherwise stated.

Further information on the development of sales revenue by region can be found in the table on page 148 of the Notes.

Sales Revenue and Order Intake

€ in millions	2023	2022	Δ in % reported	Δ in % const. fx
Sales revenue	2,775.5	3,492.7	-20.5	-18.7
Order intake	2,476.1	3,314.8	-25.3	-23.6

Development of Costs and Earnings

In 2023, cost of sales fell by 8.0% to €1,542.0 million. The respective cost of sales ratio (ratio of cost of sales to sales revenue) was 55.6%, compared to 48.0% in the previous year. The decline was mainly due to the lower business volume and negative product mix effects.

Selling and distribution costs remained almost unchanged at €449.1 million (previous year: €449.7 million), while the ratio of these costs to sales revenue increased year-on-year to 16.2% (previous year: 12.9%) in connection with the decline in sales. Research and development expenses fell by 2.2% to €129.5 million in the reporting year; the corresponding R&D ratio (ratio of R&D expenses to sales revenue) was 4.7% (previous year: 3.8%). General administrative expenses rose by 3.0% to €167.1 million; the administrative expense ratio (ratio of administrative expense to sales revenue) amounted to 6.0% in 2023 (previous year: 4.6%). Extraordinary items explicitly attributable to the functional areas are reported in the respective functional area since the 2023 reporting year. The previous year's figures were restated accordingly.

Expenses and income that could not be allocated to a functional area were recognized in the balance of other operating income and expenses. This figure amounted to -€39.1 million in 2023 after -€77.8 million in the previous year and also includes net expenses of €6.8 million (previous year: -€41.2 million) from valuation effects and the realization of currency hedges, in particular due to the development of the US-dollar exchange rate.

Earnings before interest and taxes (EBIT) fell by 54.9% year-on-year to €448.7 million; the corresponding margin was 16.2% (previous year: 28.5%). This development was mainly due to the decline in gross profit.

The financial result was -€47.6 million in 2023, compared to €135.2 million in 2022. This includes non-cash-effective income of €71.5 million, predominantly from the reporting date valuation of the share-based earn-out liability in connection with the acquisition of BIA Separations (previous year: €148.9 million). After adjustment for this effect, the increase in remaining net financing expenses resulted, among other things, from the increased debt in connection with the most recent acquisitions.

In 2023, tax expenses amounted to €89.0 million (previous year: €250.5 million). In relation to the reported earnings before taxes, the tax rate is 22.2% (previous year: 22.2%).

Net result fell by 64.5% to €312.1 million (previous year: €879.9 million), and the net result attributable to shareholders of Sartorius Stedim Biotech S.A. declined by 64.6% to €309.7 million (previous year: €876.1 million).

Statement of Profit or Loss

€ in millions	2023	2022	Δ in %
Sales revenue	2,775.5	3,492.7	-20.5
Cost of sales	-1,542.0	-1,675.4	8.0
Gross profit on sales	1,233.5	1,817.4	-32.1
Selling and distribution costs	-449.1	-449.7	0.1
Research and development costs	-129.5	-132.4	2.2
General administrative expenses	-167.1	-162.2	-3.0
Other operating income and expenses	-39.1	-77.8	49.8
Earnings before interest and taxes (EBIT)	448.7	995.2	-54.9
Financial income	94.4	185.8	-49.2
Financial expenses	-141.9	-50.7	-180.1
Financial result	-47.6	135.2	n.m.
Profit before tax	401.1	1,130.4	-64.5
Income taxes	-89.0	-250.5	64.5
Net result	312.1	879.9	-64.5
Attributable to:			
Equity holders of SSB S.A.	309.7	876.1	-64.6
Non-controlling interest	2.4	3.8	-37.3

Extraordinary items are reported within functional expenses as of fiscal 2023. Prior-year figures were restated accordingly.

Earnings

At the Sartorius Stedim Biotech Group, EBITDA (earnings before interest, taxes, depreciation, and amortization) are used as the key profitability indicator. To provide a complete and transparent picture of the Group's profitability, also in an international comparison, earnings are adjusted for extraordinary items (underlying EBITDA). For more information about definitions, please refer to the Glossary on page 242.

Reconciliation between EBIT and Underlying EBITDA

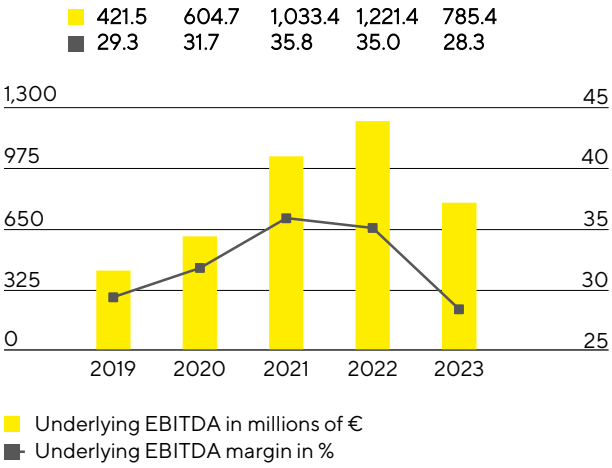
€ in millions	2023	2022
EBIT	448.7	995.2
Extraordinary items	99.1	46.3
Depreciation and amortization	237.6	179.9
Underlying EBITDA	785.4	1,221.4

Extraordinary Items

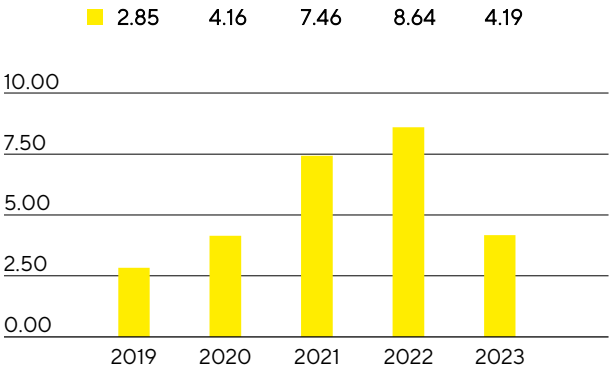
€ in millions	2023	2022
M&A projects	Integration costs	−21.1	−13.7
Structural measures	−74.2	−22.9
Other	−3.8	−9.7
Group	**−99.1**	**−46.3**

Mainly as a result of the lower volume development, underlying EBITDA decreased by 35.7% to €785.4 million; the resulting margin was 28.3% (previous year: 35.0%). Negative product mix effects also had a dampening effect, as the reduction in inventories on the customer side particularly affected demand for higher-margin consumables and led to a lower share of such products in total sales. Price effects on the procurement and customer sides largely offset each other.

Underlying EBITDA[1] and Margin



Underlying Earnings per Share[2]
in €



1 Underlying EBITDA: Earnings before interest, taxes, depreciation, and amortization and adjusted for extraordinary items.
2 Profit for the period after non-controlling interest, adjusted for extraordinary items and amortization, as well as based on the normalized financial result and the normalized tax rate.

The underlying net result after non-controlling interest for the Group fell from €796.6 million in 2022 to €385.9 million in fiscal 2023. This figure is the basis for calculating the profit to be appropriated and is computed by adjusting for extraordinary items, eliminating amortization of €91.1 million (previous year: €60.7 million), and is based on the normalized financial result and a normalized tax rate (see Glossary). Underlying earnings per share fell by 51.6% from €8.64 a year earlier to €4.19.

€ in millions	2023	2022
EBIT (operating result)	**448.7**	**995.2**
Extraordinary items	99.1	46.3
Amortization	IFRS 3	91.1	60.7
Normalized financial result[1]	**–114.1**	**–20.6**
Normalized income tax (26%)[2]	–136.4	–281.2
Underlying net result	**388.3**	**800.4**
Non-controlling interest	–2.4	–3.8
Underlying net result after non-controlling interest	**385.9**	**796.6**
Underlying earnings per share (in €)	4.19	8.64

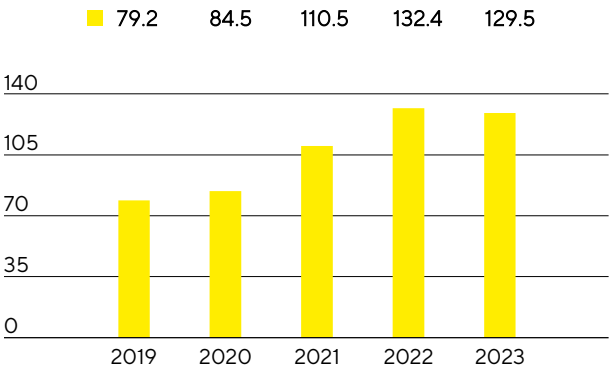
1 Financial result excluding fair value adjustments of hedging instruments and currency effects relating to financing activities and change in valuation of earn-out liability.
2 Normalized income tax based on the underlying profit before taxes and amortization.

See Glossary on page 242 for the definitions of the totals listed above.

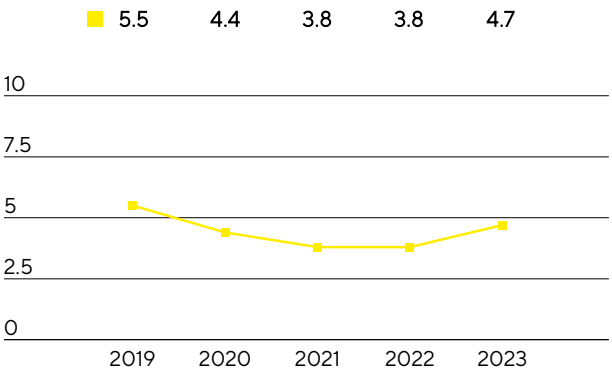
Research and Development

Sartorius Stedim Biotech continuously expands its product portfolio by investing in both new and further development of its products, as well as in the integration of new technologies through alliances and cooperations. In 2023, the Group spent €129.5 million on R&D, corresponding to a decline of 2.2% compared to the previous year's investment of €132.4 million. The R&D ratio was 4.7% (previous year: 3.8%). The gross R&D ratio of 7.4% was above the prior-year ratio of 5.6%; this ratio is even more meaningful for the assessment of innovation-related expenses and includes capitalized development costs of €75.4 million (previous year: €63.1 million) that are disclosed in the statement of financial position.

Research & Development Costs
€ in millions



Research & Development Ratio
in % of sales revenue



To protect know-how, Sartorius Stedim Biotech pursues a targeted intellectual and industrial property rights policy. The company systematically monitors compliance with these rights and reviews 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 2023 totaled 216 compared with 171 in the previous year. As a result of the applications submitted in the past years, the company was issued 307 patents and trademarks (previous year: 267). As of the balance sheet date, there was a total of 4,913 patents and trademarks in the portfolio (previous year: 4,067).

	2023	2022
Number of patent and trademark applications	216	171
Registered patents and trademarks	307	267

Capital Expenditures

In the reporting year, Sartorius Stedim Biotech continued to invest considerably in the expansion of new capacities in all regions. In addition to significantly expanding production capacities, the investment program aims to further diversify the production network and make it more flexible. In line with the company's expansion plans, some expansion projects were completed in 2023. Further projects will be completed in the current year or in subsequent years.

At €473.6 million, capital expenditures in 2023 were slightly higher than the previous year's figure of €430.6 million, as planned. The ratio of capital expenditures (Capex) to sales revenue rose to 17.1% (previous year: 12.3%) due to the decline in Group sales revenue.

The company's largest investment projects in the reporting year included the expansion of membrane manufacturing capacities and new laboratory space for product development in Göttingen, Germany.

At its site in Yauco, Puerto Rico, a production line for cell culture media was set up and put into operation in 2023.

Sartorius Stedim Biotech made further substantial investments in additional clean room space for the manufacture of sterile disposables at its site in Aubagne, France, in the reporting year.

In the Asia|Pacific region, the company invested considerably in Songdo, South Korea, where construction work began on a plant for cell culture media production and sterile consumables processing. In addition, Sartorius Stedim Biotech plans to build a technology center for customer consulting and product demonstrations as well as laboratory space at the new site, which is located in the middle of a biopharma park.

Production capacities were also expanded at other locations. For example, the company carried out expansion projects at other sites in Germany as well as in the USA, the UK, and Slovenia.

Capital Expenditures

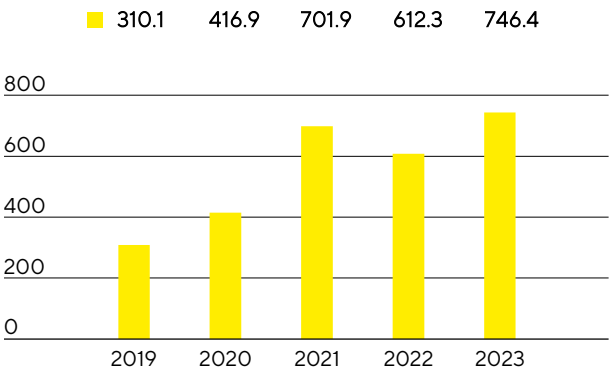
in millions of € unless otherwise specified	2023	2022
Sales revenue	2,775.5	3,492.7
Capital expenditures	473.6	430.6
Capital expenditures as % of sales revenue	17.1	12.3

2.5 Net Worth and Financial Position

Cash Flow

Cash flow from operating activities rose by 21.9% to €746.4 million in 2023 (previous year: €612.3 million) despite the decline in earnings. The increase resulted primarily from the optimization of working capital[1]. While Sartorius Stedim Biotech had increased inventories as planned in 2022 and previous years to secure supply ability in view of the temporary tensions in supply chains, these were significantly reduced in 2023. In addition, lower tax payments also had a positive effect.

Net Cash Flow from Operating Activities
€ in millions



Based on fundamentally intact growth drivers in the end markets and its medium-term growth targets, Sartorius Stedim Biotech continued its investment program to expand and diversify its production capacities, although the pace of implementation of individual measures was slowed down in view of the temporarily weaker demand. Cash outflows from investing activities increased by 9.0% to €481.8 million (previous year: -€442.0 million). Due to acquisition-related expenses of €2,240.9 million (previous year: -€515.6 million), primarily in connection with the acquisition of Polyplus, a provider of innovative cell and gene therapy technologies, cash flow from investing activities and acquisitions rose to -€2,722.7 million (previous year: -€957.5 million).

Mainly driven by a new loan agreement amounting to €3 billion signed with the parent company Sartorius AG and its affiliate Sartorius Finance B.V., cash flow from financing activities was €1,986.1 million (previous year: €220.7 million). This also included dividend payments for the 2022 financial year of €133.9 million (previous year: €117.7 million).

1 Sum of inventories and trade receivables.

Cash Flow Statement		
€ in millions	2023	2022
Cash flow from operating activities	746.4	612.3
thereof change in working capital	184.0	–265.3
Cash flow from investing activities and acquisitions	–2,722.7	–957.5
Cash flow from financing activities	1,986.1	220.7
Cash and cash equivalents	116.6	107.1
Gross debt	3,681.8	1,135.7
Net debt	3,565.2	1,028.6

Consolidated Statement of Financial Position

The balance sheet total of the Sartorius Stedim Biotech Group was €7,739.9 million as of the end of fiscal 2023 and thus €2,674.5 million higher than the prior-year level. This increase is largely due to the rise in non-current assets by €2,930.6 million to €6,324.8 million, mainly due to the increase in goodwill, other intangible assets and property, plant and equipment as a result of the acquisition of Polyplus and by the continuation of the investment program. Current assets decreased by €256.0 million year-over-year to €1,415.1 million, mainly as a result of the reduction in inventories and trade receivables, while cash and cash equivalents increased slightly. Working capital amounted to €1,176.1 million as of December 31, 2023 (previous year: €1,429.3 million).

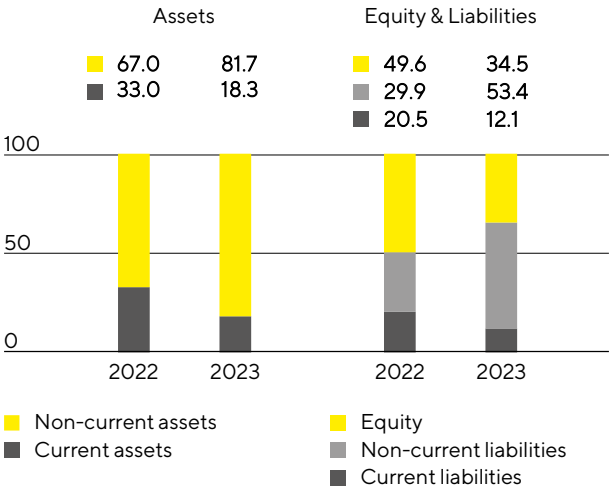
Key Working Capital Figures			
in days		2023	2022
Days inventories outstanding			
Inventories | Sales revenue[1]	x 360	113	105
Days sales outstanding			
Trade receivables | Sales revenue[1]	x 360	38	41
Days payables outstanding			
Trade payables | Sales revenue[1]	x 360	57	50
Net working capital days			
Net working capital[2] | Sales revenue[1]	x 360	94	96

1 Including pro forma sales of recent acquisitions.
2 Sum of inventories and trade receivables less the trade payables.

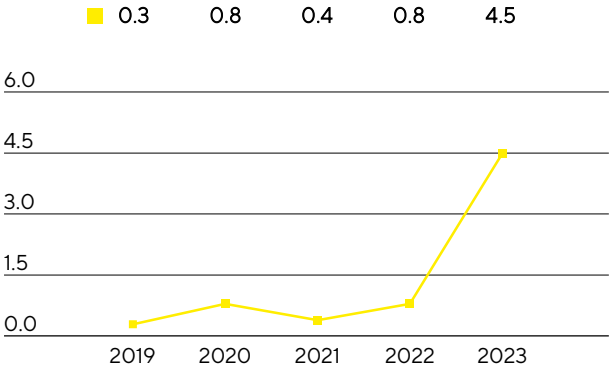
Equity grew by €159.0 million to €2,673.2 million as of year-end. The equity ratio – defined as the quotient of equity to the balance sheet total – was 34.5% (previous year: 49.6%).

Non-current liabilities increased from €1,515.3 million in the previous year to €4,129.4 million, mainly attributable to loans from the parent company Sartorius AG of €3 billion. In addition to financing the Polyplus acquisition, a smaller portion of the funds was used to repay current financial liabilities or was held in cash. As a result, current liabilities fell by €98.6 million to €937.3 million. The decrease in trade payables also had a positive effect.

Balance Sheet Structure
in %



Ratio of Net Debt[1] to Underlying EBITDA[2]



1 The net debt excludes the liability for the remaining purchase price for acquisitions; 2023: €80.6 million, 2022: €245.1 million, 2021: €518.7 million, 2020: €127.8 million, 2019: €72.5 million.
2 EBITDA includes underlying pro forma EBITDA contributed by acquisitions for this period.

Gross debt, which is comprised of bank liabilities and loans from the parent company Sartorius AG and its affiliate Sartorius Finance B.V as well as lease liabilities, rose to €3,681.8 million as of December 31, 2023, compared with €1,135.7 million as of December 31, 2022. The increase is mainly due to the aforementioned loan agreement. Net debt, defined as gross debt less cash and cash equivalents, was €3,565.2 million, compared to €1,028.6 million a year ago.

In relation to the debt financing capacity of Sartorius Stedim Biotech, the ratio of net debt to underlying EBITDA is a key metric. It is defined as the quotient of net debt and underlying EBITDA over the past 12 months, including the pro forma amount contributed by acquisitions for this period. Following the completion of the Polyplus acquisition and the investments made in the reporting year, the ratio of net debt to underlying EBITDA as at December 31, 2023, was, as expected, at a higher level of 4.5 (previous year: 0.8). This figure is expected to be significantly reduced in 2024, to which a strong expected cash flow as well as the further reduction of inventories and lower investments in capacity expansions should contribute.

Calculation of Net Debt and Ratio of Net Debt to Underyling EBITDA

€ in millions	2023	2022
Non-current		
Loans and borrowings	3,509.7	1,020.6
Lease liabilities	93.1	91.1
Current		
Loans and borrowings	57.7	4.5
Lease liabilities	21.4	19.5
Gross debt	3,681.8	1,135.7
- Cash and cash equivalents	116.6	107.1
Net debt	**3,565.2**	**1,028.6**
Underlying EBITDA (12 months)	785.4	1,221.4
+ Pro forma EBITDA (12 months)	14.7	11.7
Pro forma underlying EBITDA (12 months)	**800.0**	**1,233.1**
Ratio of net debt to underlying EBITDA	**4.5**	**0.8**

Financing | Treasury

Sartorius Stedim Biotech covers its operational and strategic financing needs through a combination of operating cash flows and the assumption of short-, medium- and long-term financial liabilities.

As of December 31, 2023, the total volume of credit lines provided by the parent company Sartorius AG was €260 million. Additional bilateral credit lines of approximately €110 million were provided by banks. Of these amounts, Sartorius Stedim Biotech had utilized €5 million, leaving available credit lines of €365 million. This ensures that all Group entities have sufficient funds to cover short-term financing requirements.

Loans are taken out via the parent company Sartorius AG and its affiliate Sartorius Finance B.V. To finance the acquisition of Polyplus and refinance existing debt, Sartorius Stedim S.A. and Sartorius Stedim Biotech GmbH took out €3 billion of new loans with initial maturities of 3 to 12 years from Sartorius Finance B.V. in 2023. As at the reporting date, all outstanding loan agreements amounted to €3.57 billion. The proportion of fixed-interest instruments was around 95%.

The company uses 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 2023, foreign exchange contracts amounted to €549.0 million on a reported basis, with a market value of €4.0 million.

Assessment of Economic Position

After the pandemic-related extraordinary business and inventory buildup by customers led to strong additional growth momentum in the years 2020 to 2022, the temporary normalization of demand expected by the company management set in during the reporting year. This was more pronounced than anticipated at the beginning of the year, and the reduction in customer inventories also lasted longer than expected, which led to numerous forecast revisions throughout the life science sector. Other industry-wide factors also had a dampening effect, such as relatively low production levels, the largely discontinued business with Russian customers, and an overall muted investment activity on the part of customers, primarily in China and the USA. Against the backdrop of the temporarily weaker market environment, the company's management lowered its growth and earnings forecast for the Group in June and October 2023. In line with progress made by customers in reducing their inventories, business began to recover at the end of the third quarter, so that order intake was slightly above sales revenue in the fourth quarter. The company management therefore expects profitable growth for 2024.

Group sales revenue decreased by 18.7% in constant currencies to €2,775.5 million (reported: -20.5%). The corresponding underlying EBITDA margin stood at 28.3%. The forecast given in October for a decline in sales revenue of around 19% with profitability of just over 28% was therefore achieved.

The ratio of net debt to underlying EBITDA rose to 4.5 as of December 31, 2023, mainly due to the financing of the Polyplus acquisition, and was in line with the forecast value of just over 4.5.

In line with its ambitious mid-term growth targets, Sartorius Stedim Biotech continued to expand its production capacity in the reporting year. The ratio of capital expenditures to sales revenue reached 17.1% and was therefore slightly below the forecast of approximately 18%.

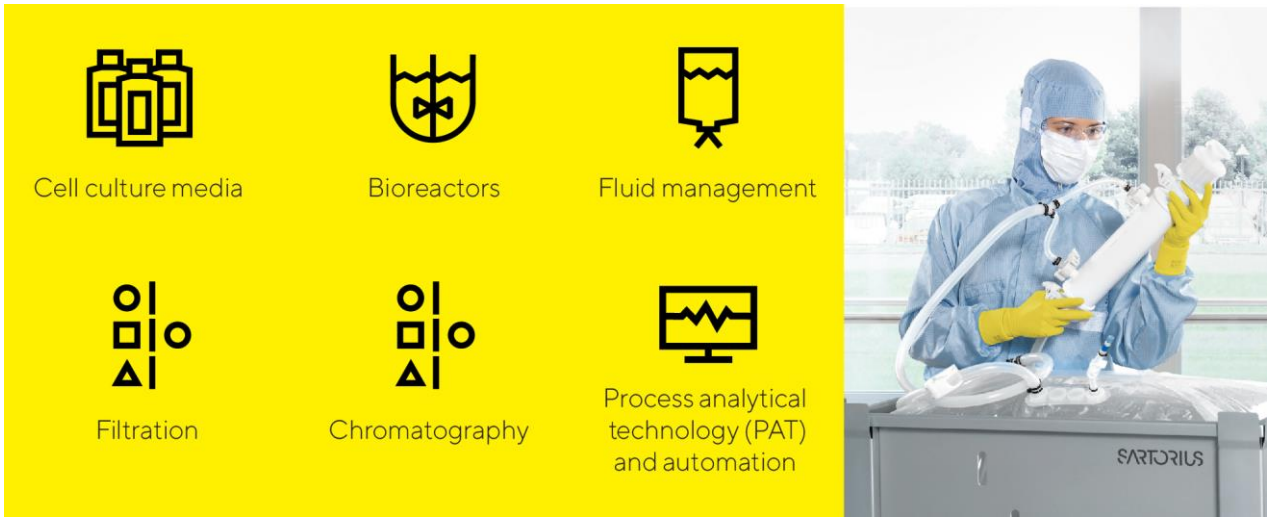
Projected | Actual Comparison for the Year 2023

	Actual	Guidance	Guidance	Guidance	Actual
	2022	January 2023	June 2023	October 2023	2023
Sartorius Stedim Biotech Group					
Sales growth[1]	15.1%	Low single-digit percentage range	Decline in the low to mid-teens percentage range	~-19%	-18.7%
Underlying EBITDA margin in %	35.0%	Around the level of the prior year	~30%	Slightly above 28%	28.3%
Net debt to underlying EBITDA	0.8	~0.5[2]	Slightly below 4[2]	~4.5[2]	4.5
Capital expenditures as % of sales revenue	12.3%	~12.5%	~15%	~18%	17.1%

1 In constant currencies.
2 Possible acquisitions are not considered.

2.6 Products and Sales

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



As a result of the acquisition of the French company Polyplus, Sartorius Stedim Biotech has significantly expanded its product portfolio in the area of cell and gene therapies. Polyplus develops and produces high-quality, GMP-compliant transfection as well as DNA and RNA delivery reagents and plasmid DNA. These components are success-critical in the manufacture of viral vectors used in cell and gene therapies as well as other new medical therapy methods. The solutions from Polyplus are highly complementary to the portfolio created by Sartorius Stedim Biotech in recent years, which now comprises various cell culture media, other critical raw materials, and purification technologies for the manufacture of advanced therapies.

In the area of filtration, the Bioprocess Solutions Division introduced a new platform for the large-scale manufacture of biopharmaceuticals, which can be preconfigured with a wide range of filter types. The platform is suitable for a large number of separation steps, from cell culture media to virus depletion to subsequent sterile filtration; it is particularly user-friendly in its handling and achieves significant cuts in production times. In addition, a high-throughput tool for clarifying and purifying monoclonal antibodies was launched that helps customers speed up the preparation of small cell culture samples for downstream analysis in cell line development. Moreover, a system was introduced that allows single-use bags to be filled evenly at the same time, for example, with cell culture media for the manufacture of cell therapies, thus accelerating the filling process significantly.

Sales Activities

Sartorius Stedim Biotech markets most of its product portfolio directly. Sales activities for key accounts are coordinated and supported by global key account management.

Communication with customers via on-site visits is now supplemented by digital channels: many contacts with customers are made through digital communication tools. Video conferencing and augmented reality are used for such direct interactions, for example, when demonstrating products, conducting training sessions, and bringing systems into service. Other focuses aimed at strengthening the sales force are on expanding the

company's international presence and on continually enhancing sales efficiency, for example with product and application training or further specialized training programs for employees.

Product Development

Development activities at Sartorius Stedim Biotech essentially focus on technology areas such as membranes, which are the core component of the filter products; diverse technology platforms such as sterile containers for fluid management in biopharmaceutical processes and sensors; and control technologies for processes such as fermentation. Additional focal areas encompass developments in materials and components that include plastics, elastomers, and intelligent polymers; expanded data analysis; cell line development; and critical media components for protein-based, viral, and advanced therapies.

Product development is aimed at expanding the existing portfolio on a complementary basis and further enhancing the range of integrated complete solutions for the manufacture of biopharmaceuticals – from the early phase of development to commercial production.

The largest product development site is located in Göttingen, Germany, where a new product development building began its operations in the reporting year. Further important activities take place in France, India, the USA, and the UK, as well as in Sweden, Israel, Slovenia, and other locations in Germany.

Production and Supply Chain Management

Sartorius Stedim Biotech has a very well-developed global production network that was expanded at several sites in the reporting year. The largest production facilities are located in Germany, France, and Puerto Rico. Beyond these locations, the company also manufactures in the UK, Switzerland, Tunisia, India, the USA, China, Israel, and Slovenia. The most recent acquisition has added sites in France, Belgium, the USA, and China.

In the reporting year, Sartorius expanded its plant in Puerto Rico by adding a production facility for cell culture media. The new facility allows the company to supply, from its plant in Yauco, high-quality cell culture media in powder form, which are used in the manufacture of therapeutic proteins and other modalities. Production in Yauco is focused on customers in the Americas region.

Moreover, construction started in Freiburg im Breisgau, Germany, on a center of excellence for the development and production of quality-critical reagents for the cell and gene therapy market. The new building will increase the existing production of cytokines and growth factors and significantly expand research and development. The building is scheduled for completion in 2025 and production is expected to start in 2026.

The supply chain situation continued to ease in 2023 compared with previous years. Delivery times for most products have normalized, and the availability of electronic components and some chemical raw materials also improved over the course of the year.

2.7 Sustainability

In accordance with the provisions of Article L.225-102-1 IV of the French Commercial Code, the Sartorius Stedim Biotech S.A. subgroup is exempt from the obligation to prepare its own non-financial statement upon submission of the non-financial statement of Sartorius AG for the Sartorius Group. Sartorius Stedim Biotech as a Sartorius subgroup accounts for ~82% of the business in terms of sales revenues. Hence, and in accordance with Articles L225-100-1 al 2 and 225-10-35 of the French Commercial Code the overarching sustainability ambition and strategy along with concepts to key sustainability topis as described below apply to the Sartorius Group as well as to Sartorius Stedim Biotech in the same way. In addition, non-financial performance indicators are part of the Sartorius Stedim Biotech CEO variable remuneration, namely the Employee Net Promoter Score a short-term target and the CO_2 eq emission intensity reduction as a long-term target.

Sustainability Ambition and Strategy

As a signatory to the United Nations Global Compact, Sartorius is committed to complying with certain social and environmental standards when conducting its business activities. The aim is to identify and assess adverse impacts that are arising or may arise throughout the upstream and downstream value chain as a result of business operations and, based on this, to prevent or mitigate significant adverse impacts and provide remediation where they occur. The addition of sustainability aspects as a new element of corporate management is a long-term transformation and requires ongoing dialogue, coordination and close collaboration with relevant stakeholders along the value chain.

The company's key stakeholders principally include customers and business partners, employees, investors and local residents near Sartorius sites. Particularly in the case of customers, Sartorius uses a range of formats to remain in constant dialogue regarding sustainability aspects of products, decarbonization and climate neutrality, and other environmental and social standards. Employees, investors and suppliers are regularly informed about relevant sustainability targets, measures and results. As part of its regular capital market communication and SRI conferences, Sartorius was in constant discussion with analysts and investors. A virtual capital market tutorial also took place, focused on the company's decarbonization strategies and measures. The sustainability strategy was discussed with selected suppliers at a supplier day. In addition, Sartorius is involved in industry associations such as BioPhorum, NIMBL and PSCI on sustainability-related topics and actively shapes industry initiatives.

Sartorius defined the following strategic sustainability topics for the Group back in fiscal 2022, taking its key stakeholders' concerns into account:

- Climate
- Materials and circularity
- Water and wastewater
- Social responsibility
- Corporate governance
- Sustainability in the supply chains

Concepts for the Strategic Topics

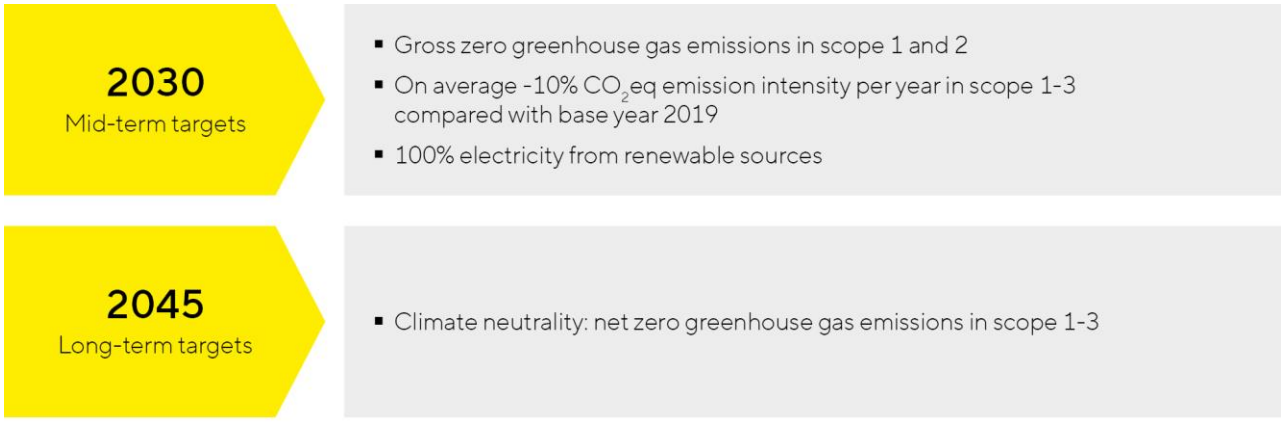
Climate

The company is aiming to make its business activities net-climate neutral by 2045. This is to be achieved through continuous decarbonization along the value chain and by removing unavoidable residual emissions in line with the Paris Agreement.

In fiscal 2021, the Group set itself the target of reducing CO_2eq emission intensity by an average of 10% per year by 2030 in comparison with the base year 2019. Sartorius has defined this indicator as adjusted greenhouse gas (GHG) emissions by market-based calculation per net turnover in gCO_2eq/€ based on the Accounting and Reporting Standards of the GHG Protocol. It includes Scope 1, 2 and 3 under the GHG Protocol. The adjustment means that in the "Purchased goods and services" GHG category it accounts only for the goods and services actually consumed for the manufacture of Sartorius' products and services sold during the fiscal year. This indicator forms part of the Executive Board's and management's long-term variable remuneration components.

The Group has also set a target of cutting its avoidable, energy consumption-related gross Scope 1 and 2 emissions to zero by 2030. Process emissions generated during membrane production are currently deemed unavoidable based on the technology available at present

Overview of climate targets at Sartorius



In the reporting year, the company also committed to preparing medium-term, science-based climate targets, which will be validated by the independent Science Based Targets Initiative (SBTi). The targets are due to be submitted to the SBTi by October 2025.

Sartorius already identified a range of decarbonization levers along the value chain back in 2021. These particularly include product design, the associated energy efficiency and selection of materials, and the Group's transport activities. The company is currently working on a concrete transition plan. As a first step, it was decided in the reporting year to switch all energy consumption to renewable sources by 2030.

Materials and Circularity

The company's ambition formulated in the 2023 financial year is to minimize recyclable waste and optimize the use of resources along the value chain. In the reporting year, the Executive Board set the target for 2030 of generating at least 75% of the Group's sales revenue with products designed acccording to circularity principles. This includes product and transport packaging. The principles of circular design include durability, reusability, repairability, disassembly, remanufacturing, refurbishment, recycling, recirculation by the biological cycle, and other ways of improving the use of the product or material based on the circular economy.

A detailed implementation plan is currently being worked out. The company will start by driving the creation of Group-wide data transparency around resource flows. A multi-year master data program was launched in the reporting year to initiate the first steps toward accounting for the inflow and outflow of resources at the company.

Conducting life cycle assessments is another key measure for quantifying the environmental impacts of products, packaging and processes and identifying potential for improvement. Sustainability experts in the operating divisions began these analyses in the reporting year, focusing on particularly relevant products and product groups.

Operational waste is already avoided during the production process by reducing or reusing scraps. This primarily applies to bag, membrane and filter cartridge production. The relevant sites run an operational waste management system. The Executive Board resolved in the reporting year to send no more operational waste to landfill by 2030.

Overview of circularity targets at Sartorius

2030

- At least 75% of Group sales revenue with products designed according to circularity criteria (including product and transport packaging)
- Zero operational waste to landfill

Water and Wastewater

Distillation plants are operated at the membrane production sites in Göttingen, Germany, and Yauco, Puerto Rico, that enable almost full recycling of solvents from the production process for own reuse. For solvents not recycled in this process, the disposal by external service providers is arranged. Production wastewater that has been pre-cleaned in accordance with legal limits is discharged into the sewage system or external service providers are commissioned for further treatment.

EHS managers at the sites are responsible for local environmental management. Environmental aspects must be regularly identified and analyzed as part of the local environmental management systems and improvement measures drawn up on this basis.

Social Responsibility

Human Rights and Labor Standards

The Group has made a policy statement on respect for human rights and a position statement on labor and social standards and occupational health and safety available to all employees worldwide on the intranet. Sartorius is committed to upholding human rights and labor standards that include the UN Guiding Principles on Business and Human Rights, the International Bill of Human Rights, in particular the Universal Declaration of Human Rights, the UN International Covenant on Civil and Political Rights and the UN International Covenant on Economic, Social and Cultural Rights, the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and the OECD Guidelines for Multinational Enterprises. The Sartorius Code of Conduct sets binding minimum standards for law-abiding and ethical conduct throughout the Group, which also include binding labor standards.

These labor standards are overseen by various functions at different levels at Sartorius. For example, the Environment, Health, and Safety (EHS) Department coordinates the global concepts in the field of occupational health and safety. Individual sites have also introduced specific management systems in accordance with ISO 45001.

The company monitors compliance with the provisions of the Code as part of its compliance management system, for example through regular internal audits by the Group Auditing Department. Once a year, a report is submitted to the responsible Supervisory Board committee. Further information on the compliance management system can be found in the corporate governance statement of the Sartorius Group's annual report.

Compliance with the human rights requirements set out in the Sartorius Code of Conduct is also verified by external audits performed by an accredited organization in accordance with the standards of the Pharmaceutical Supply Chain Initiative (PSCI). The PSCI has established itself as an initiative in the pharmaceutical industry to promote sustainability throughout the value chain. In a rolling process, five sites selected on the basis of risk are chosen for audit each year.

Employees also have the ability to report human rights and labor standards violations at any time to the appropriate manager, employee representatives, compliance officer, or via the compliance or whistleblower hotline as well as anonymously via the whistleblower portal.

Diversity

As a signatory to the Diversity Charter, Sartorius is committed to promoting workforce diversity beyond these basic labor standards. Company-wide networks have been established in this context, such as an LGBTQ Alliance and the Sartorius Business Women Association (SBWA) to achieve gender parity in management positions.

Employability

Sartorius is committed to promoting its employees' ongoing personal and professional development and has also enshrined this in its management guidelines.

Annual performance reviews between employees and their managers provide a forum for discussing performance, targets, and individual development opportunities. The company offers a wide range of training opportunities across the Group, such as management development and mentoring programs, self-learning opportunities, and also opportunities to work abroad.

Satisfaction

Within the framework of a global employee survey conducted twice a year, the Group regularly determines its employees' overall opinion of the company and its leadership culture, the workplace, and job satisfaction in general, for example.

The employee net promoter score, which measures the extent to which employees would recommend Sartorius as an employer, forms part of the Executive Board's and management's short-term variable remuneration components. Sartorius has set itself the goal of achieving an average annual score of 35.

Corporate Governance

Corporate governance is based on the requirements defined in the German Stock Corporation Act ("Aktiengesetz") and the recommendations of the Corporate Governance Code. The corporate governance statement and declaration of compliance can be found in the Sartorius Group annual report.

Through its Group-wide compliance management system, Sartorius aims to ensure that members of its individual boards, executives, and employees comply with all legal regulations and codes and perform their activities in accordance with the company's internal guidelines. A Compliance Management Manual was introduced in the reporting year, summarizing the responsibilities and authority of individual functions and setting out the processes for efficient collaboration between them. The basic principles of the compliance management system are explained in the corporate governance statement of the Sartorius Group annual report.

The issue of anti-corruption is also a central component of the compliance management system. The related requirements employees must comply with are laid out in a dedicated Anti-Corruption Code, and employees regularly receive training focused specifically on the contents of the Code.

Sustainability in the Supply Chain

Our fundamental sustainability requirements were laid out in our Code of Conduct for Business Partners, which was updated in September 2022 with respect to some human rights issues in the context of the implementation of Germany's Supply Chain Due Diligence Act (LkSG) and published in a new version. This Code of Conduct has been binding for new suppliers since 2019. Both new and existing suppliers are required to sign the updated Code of Conduct.

A standardized, multi-stage process is in place to assess supplier sustainability. This is based on internal and external information and requires corrective measures to be taken in the event of non-compliance. In the Bioprocess Solutions Division, a risk committee has been set up, which receives regular reports on the results and decides on the action to be taken. The supplier evaluation process involves reviewing compliance with sustainability requirements using self-assessments based on standardized questionnaires via recognized providers. For selected suppliers, Sartorius engages external, independent on-site sustainability audits. Furthermore, sustainability aspects form part of the on-site quality audits conducted by Sartorius itself. The sourcing departments are responsible for ensuring that suppliers are bound by the Code of Conduct and for verifying compliance with the requirements. The quality departments are responsible for carrying out the quality audits.

In addition, Sartorius maintains a continuous dialogue with suppliers to promote their commitment to sustainability issues.

Further Information

Further information on sustainability, particularly the results of our concepts for strategic sustainability topics and the reporting in accordance with Article 8 of the EU Taxonomy Regulation 2020/852, can be found in the Non-financial Statement of the Sartorius Group annual report.

Sustainability reporting in this Non-financial Statement is supplemented by the Sustainability Report of the Sartorius Group, which is prepared based on the GRI Standards. The Sustainability Report for the past fiscal year will be published in the first quarter of 2024.

2.8 Risk Management Organization

Principles

Every business activity entails risks that have to be managed, and their management is a decisive success factor for the future development of a company's shareholder value.

The point of risk management is not to always eliminate every risk possible; rather, the company's approach is to intentionally take a certain measure of risk in business activities in order to be successful in unlocking opportunities. In this context, it is important to keep risks within acceptable limits and to control them carefully. Through appropriate guidelines, it is ensured that risk assessments are taken into account in the decision-making processes from the very beginning.

At Sartorius Stedim Biotech, identification and management of risks is a cross-functional component of Group management. In this respect, Sartorius Stedim Biotech's risk management is integrated into the Sartorius Group organization. The risk management organization reflects a global functional organization in which individuals heading a functional area are each responsible for their own management of risks. The Finance & Controlling department ensures a regular reporting process and is responsible for the further development of the Group's risk management system as a whole (Central Risk Management function).

Organization

Overall responsibility for an effective risk management system lies with the Audit Committee. The coordination and further development of this system as well as the combined risk reporting are the responsibilities of the Finance department, while the particular functional areas are responsible for identifying and reporting individual risks, as well as for assessing their potential impact and for taking the appropriate countermeasures.

The Audit Committee monitors the effectiveness of the risk management system: 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. The main results and findings of these audits are discussed in the Board and Audit Committee meetings. Any adjustments to the risk management system are implemented by Central Risk Management.

Insurance

Sartorius Stedim Biotech has 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, and cyber, transport, and financial losses and provide comprehensive coverage for legal costs. The type and scope of insurance coverage are regularly reviewed and adjusted by an independent department in cooperation with an external insurance broker.

When selecting insurers, the Group considers particularly the credit rating of these entities, as well as the target to achieve a high degree of diversification to mitigate the related risks.

Risk Management System and Risk Reporting

The risk management system of the Sartorius Group is documented in a Risk Management Handbook that applies throughout the entire Group and includes definitions of the framework, the structural organization, processes, risk reporting and monitoring, and controlling of the effectiveness of the risk management system. This Handbook is based on the ISO 31000 "Risk Management - Guidelines" standard and the COSO standard (COSO = Committee of Sponsoring Organizations of the Treadway Commission). There are also a number of other sources that contain guidelines for dealing with risks, including the Articles of Association and rules of procedure of the Group companies and other internal guidelines. The Group's dynamic development over the past years and the increasing demands of customers and regulators meanwhile require that the guidelines and rules are adapted continuously.

The reporting process in the risk categories subsequently described establishes the rules for the ongoing review of and gathering of information on risk situations. If specific risks are identified, 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. Assessment of risks is governed by the remaining net risk, after any risk-mitigating action has been taken. In addition, as soon as these risks reach defined size criteria, they are reported into the risk management tool. Central Risk Management aggregates these risks and informs the Audit Committee regularly on the Group's risk situation. This information includes a comparison of the risk portfolio with the risk-bearing capacity of the Group, determined on the basis of a rolling liquidity planning. An urgent reporting procedure is in place to ensure that when a new or emerging significant risk to the Group's net worth, financial position, and profitability is identified, the Audit Committee receives all of the necessary details without delay.

Sartorius Stedim Biotech has defined a risk matrix that categorizes the probability of occurrence and potential impact on the net profit into specific classes as follows:

Probability of Occurrence	
Remote	< 10%
Possible	10% - 50%
Probable	50% - 75%
Very likely	> 75%

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

These two elements are combined to form the following matrix that indicates the importance of the individual risks for the Group:

> 75%	low	medium	high	high
50 - 75%	low	medium	medium	high
10 - 50%	low	medium	medium	medium
< 10%	low	low	medium	medium
Probability | Impact	< €10 million	€10 - 50 million	€50 - 100 million	> €100 million

Risk Factors

Overview

To structure risks in a meaningful way, four main categories have been defined: external risks, operating risks, financial risks and compliance risks. Each main category is divided into several subcategories that are shown in the table below and further described in the following sections.

For the purposes of this report, the probability of occurrence of the risks has been assessed as shown below and, in the adjacent columns, classified according to their particular significance for the entire Group. The most significant risks in each category are marked with an asterisk.

Risk Category	Probability of Occurrence	Significance	Net Impact
External risks	Probable	Significant	Medium
Operating risks			
Procurement risks*	Possible	Significant	Medium
Production risks	Possible	Significant	Medium
Sales and distribution risks	Possible	Significant	Medium
Competitive risks	Possible	Moderate	Medium
Quality risks	Remote	Significant	Medium
Research and development risks	Possible	Significant	Medium
Acquisition risks	Possible	Significant	Medium
Personnel risks	Possible	Significant	Medium
IT risks	Possible	Significant	Medium
Financial risks			
Exchange rate risks*	Probable	Moderate	Medium
Interest rate risks	Probable	Moderate	Medium
Liquidity risks	Remote	Moderate	Low
Tax risks	Possible	Moderate	Medium
Compliance risks			
Regulatory risks*	Possible	Significant	Medium
Environmental risks from the production process	Remote	Moderate	Low
Litigation risks	Possible	Moderate	Medium

External Risks

General Risks

The effects of the coronavirus pandemic had a significant temporary impact on Sartorius Stedim Biotech's business development. As one of the leading bioprocess technology providers, the Group was able to contribute to overcoming the pandemic by supplying products for the manufacture of coronavirus vaccines and test components and to generate extraordinary increases in revenue in 2021 and 2022. In 2023, the significant reduction of the Covid-19-related business combined with customers' inventory reductions led to a double-digit decline in orders and revenue.

Since the beginning of Russia's attack on Ukraine, Sartorius Stedim Biotech has suspended all business activities in Russia that are not related to humanitarian medical products. As a result, sales generated in Russia dropped significantly and had a moderate impact on the Group. The indirect effects of the war, for example inflation, impacted supply chains, and potential gas or energy shortages were controlled by the Group through a variety of measures. Price increases were introduced to compensate for the higher procurement costs. The German Group locations have been able to make themselves largely independent of the Russian gas supply, for example, by creating the technical prerequisites for a conversion to oil. Regarding suppliers with energy-intensive production processes, safety stocks have been increased.

Overall, the direct and indirect effects of the Ukraine war on the Group's future business development are not significant. Since the conflict is ongoing and the further development of the dispute and the indirect effects cannot be reliably estimated, there is a high level of uncertainty in this context.

Sartorius Stedim Biotech runs a cell culture media facility in Beit Haemek in the northern part of Israel. While most of the fighting following the attack by Hamas is centered at the surrounding of the Gaza Strip, the southern region of Israel and the greater Tel Aviv area, the situation in the northern border region is also becoming increasingly tense. Local production as well as transport and logistics have been maintained so far. A further escalation of the conflict in Israel or the whole region might lead to temporary production stops. To strengthen resilience and safeguard delivery reliability, Sartorius Stedim Biotech is working on building backup capacities for the products currently only manufactured at this site. Overall, the business volume of the products manufactured in Israel is not critical for Sartorius Stedim Biotech (<1% of Group revenue).

In addition to the above-mentioned conflicts, other events, such as natural disasters, may also have an impact on the Group's business activities. The largest sites in Germany and France do not face any major risks in this respect, while especially the production plant in Puerto Rico is exposed to the risk of severe hurricanes or earthquakes and could be impacted accordingly. This plant is producing a wide range of products for the US market, and any major damage could therefore have a significant impact on the Group's earnings. By applying the highest possible safety standards to the buildings and explicitly considering this risk in the warehousing and international production network strategies, Sartorius Stedim Biotech is reducing the related exposure.

Since the Group companies operate globally and have international interdependencies, punitive tariffs and trade conflicts can have negative effects on the business activities. To reduce any possible impacts, various measures are currently being reviewed, such as an extension of the supplier network.

Overall, the importance of geopolitical risks for the Group's business activities has increased significantly in recent years. Developments in this regard are being observed, and measures to reduce risks are being initiated as early as possible.

Operational Risks

Procurement Risks

The company purchases a wide range of raw materials, components, parts, and services from suppliers and is consequently exposed to the risks of unexpected delivery bottlenecks and|or price increases. The global economic environment in 2022 and 2023 has led to price increases in nearly all areas. Price effects on the purchasing and customer sides largely offset each other, with the result that inflation did not have a significant negative impact on the Group's profitability. In future it might not always be possible to impose further price increases on customers, and margins would be diluted accordingly.

In the field of supplier management, powerful tools and robust processes have been implemented in recent years to manage risks and ensure supply continuity. Important measures to reduce potential supply bottlenecks include maintaining safety stock levels and identifying alternative materials and suppliers. Consequently, the Group does not consider itself to be specifically dependent on individual suppliers. In addition, the Group regularly conducts supplier reviews and carefully monitors the delivery status and inventory coverage of critical raw materials.

The Group actively mitigates procurement risks arising from potential shortages of raw materials and components in the market. By concluding binding purchase agreements with suppliers and|or by seeking alternatives within the supplier network, their impact can be reduced and continuous supply largely secured. In 2023, the Group observed a normalization of global supply chains in many areas following partial supply bottlenecks for raw materials and components as a result of the coronavirus pandemic and the Ukraine war.

In addition, Sartorius Stedim Biotech identifies and evaluates the supplier base in accordance with legal requirements (for example from the Supply Chain Due Diligence Act) as well as regarding compliance with internal and external sustainability standards. In the event of deviations, the process provides for a large number of measures that are coordinated with the suppliers concerned.

Production Risks

The Group manufactures a significant proportion of products that involve a high level of vertical integration (for example filters). Other products, such as fermenters and bioreactors, are manufactured in collaboration with suppliers so that some of the production risks are transferred to external third parties. Where products are manufactured internally, the Group bears 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.

These risks are reduced by planning production capacities carefully, using versatile machines and semi-automated individual workstations in conjunction with flex-time work schedules, and continuously monitoring production processes. Moreover, a global manufacturing network enables the Group to compensate partially for capacity bottlenecks by shifting production to other regional plants and to limit the dependency on individual local manufacturing sites. Strong demand volatility, as has been the case since the beginning of the coronavirus pandemic, can nevertheless lead to temporary over- or underutilization of production capacities, with corresponding positive or negative effects on profitability.

Some production processes use highly flammable or explosive materials. The improper handling of such materials can result in significant damage to property and business interruptions. The Group has taken all necessary organizational and structural measures at the affected locations to mitigate this risk as much as possible.

Sales and Distribution Risks

Sartorius Stedim Biotech uses a variety of channels to sell and distribute its 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. The ongoing normalization of demand as a result of the decline in Covid-19-related additional business and the reduction of increased inventories on the customer side is likely to have only a temporary impact on the development of the industry. The Group considers the basic growth drivers as intact and expects profitable growth again in the coming years (see chapter Sector Conditions on page 27 and 30 and the Forecast Report, page 66).

The Group employs targeted market analyses to identify emerging demand trends in individual segments early on so that appropriate responses can be initiated. Technical innovations and the fact that a large number of the Group's products are used in validated production processes in the biopharmaceutical industry reduce the exposure to the risk of growing price pressure.

Geopolitical crises often lead to trade restrictions or sanctions on certain products in individual countries or regions. A tightening of sanctions in the current conflicts or the adoption of further restrictions, for example due to new crises, may therefore also lead to further restrictions on the Group's sales 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 and accordingly low credit risks. Most 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

Sartorius Stedim Biotech has a leading competitive position in its core technologies and competes mainly with larger rivals sharing the status of a globally operating company. As the Group serves a large number of customers from highly regulated sectors like the pharmaceutical and food industries, and the technology barriers to market entry are fairly high, the probability of new competitors emerging within the short term is regarded as relatively low.

The fact that many of the Group's products are used in validated processes, especially those in the biopharmaceutical industry, reduces the risk of losing significant market share within a short time frame. Conversely, the hurdles faced by Sartorius Stedim Biotech in winning clients from competitors in this industry are also higher.

Further risks could arise from changes in the competitive environment, for example, further consolidation in the markets or new competitors, for instance in China. Sartorius Stedim Biotech has been continuously making acquisitions in recent years, thus further strengthening its market position and opening up new potential synergies.

Quality Risks

Customers use Sartorius Stedim Biotech's products in a wide range of critical production processes, including the manufacture of vaccines, medications, foods, and chemicals, as well as in research and development laboratories. The main risk encountered in these areas is non-compliance with specified quality criteria, impacting the performance of the products, which can lead to losses for the Group's customers, or the customers`, for which the Group may be made liable through compensation claims. Especially in the field of vaccine or drug production, the damage caused can be significant, even if only small production volumes are lost on the customer side.

The company applies rigorous quality checks and advanced production methods and processes, such as cleanroom technology – where necessary - to ensure that all products satisfy the most stringent quality standards and high regulatory requirements. These manufacturing methods and processes are subject to constant review under the continual improvement processes and are optimized as requirements evolve. Quality control tests are implemented through in-process control tests and test procedures of final products to ensure that critical or essential product properties are continuously met. A rigid product release process ensures that only products will be shipped that are in compliance with the agreed specifications.

The effectiveness of the Group's quality system is confirmed through the successful completion of regular audits by customers as much as through implementation of certified quality systems compliant with ISO 9001 and, where applicable, with ISO 13485 to document the high level of quality achieved in Sartorius Stedim Biotech's products and processes. Irrespective of these measures, significant insurance coverage against product liability risks is maintained.

Sartorius Stedim Biotech is continuously expanding its product portfolio with new technologies and applications, not only through its own developments, but also through collaborations with partners. To ensure that partners meet the high quality standards, a rigorous qualification process has been established. The Group also helps its partners to improve their quality systems when needed.

In addition, a traceability system has been established that enables the Group to efficiently identify and, if required, recall an entire production batch immediately. This minimizes the consequences in the event that a defect or non-conforming item is discovered in a product and ensures compliance with regulations. A complaint management system has also been installed to deal with customer requests promptly and to ensure efficient documentation.

In the addressed sectors, 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. There is a risk that new regulations may be overlooked or be difficult to implement. Through the work on professional committees, and the membership in industry associations and standards committees, the Group actively takes part in drafting new standards and guidelines and is able to identify emerging requirements at an early stage and make the necessary preparations.

R&D Risks

The Group devotes a considerable share of its resources to research and development. Potential risks in this area may arise from development results that diverge from market needs or application requirements and from exceeding planned development deadlines and budgets. These risks are substantially limited through trend monitoring as well as extensive proof-of-concept activities to de-risk product development, as well as project management, intensive R&D controlling, and early involvement of customers in the development process. In particular, the company ensures that proofs of concept and product designs are always reviewed promptly with regard to how well they meet customers' needs so products can be adapted accordingly as required. The continuous tracking of technology trends and competitor activities together with early-stage patent filing ensure the Group's technology and marketing position.

Acquisition Risks

The purchase of companies or parts of companies entail, a number of typical risks, such as incorrect valuation assumptions, insufficient usage of anticipated synergy effects, and unsuccessful integration.

Sartorius Stedim Biotech takes various measures to reduce these risks. These include performing a thorough due diligence review of important areas and carrying out a comprehensive analysis of the market concerned. In addition, the Group involves external consultants and experts in the purchase or sales process as required. A special focus is on the construction of 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. Appropriate insurance policies are taken out when necessary. 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. A Post-Merger Integration (PMI) Office has been established as an independent function to ensure the efficiency of the integration process and minimization of the associated risks.

In the past years Sartorius Stedim Biotech has made significant acquisitions, mainly in the field of cell and gene therapy. In 2023 the Group acquired Polyplus, a leading developer and manufacturer of transfection and other DNA|RNA delivery reagents and plasmid DNA in high quality and GMP grade. The purchase price of this transaction was approx. 2.4 billion euros (including assumed debts). In combination with further acquisitions in the areas of critical components for the development and manufacture of advanced therapies (Biological Industries Israel, CellGenix, Xell, Albumedix) and downstream solutions for the manufacture of gene therapeutics (BIA Separations), the Group sees itself well-positioned in the dynamically growing field of advanced therapies.

At the same time, net debt and interest expenses have increased significantly. If the targeted modalities like cell and gene therapies do not develop as expected or the acquisitions cannot be integrated appropriately, this could have a significant impact on the Group's performance, and asset impairments (intangible assets and goodwill) in the financial statements cannot be excluded.

Personnel Risks

As an innovative technology group, Sartorius Stedim Biotech employs a large percentage of highly qualified people. This entails the risk that Sartorius Stedim Biotech may not be able to hire highly qualified employees with the right company fit in the future or may lose high performers currently working for the company. The increasing volatility of the business volume over the past years poses major challenges for the integration and training of new employees (growth scenario), and on the other hand, a great deal of flexibility is required, along with the ability to implement organizational changes efficiently and effectively.

Sartorius Stedim Biotech strives to retain employees in key positions and talented individuals over the long term by offering compensation models in line with the market, targeted training opportunities, and attractive long- and short-term working time and workplace models, and by highlighting interesting development prospects. In this context, the Group particularly continued to enhance staff development initiatives and management programs. The success of these measures is reflected in the low attrition rates seen in recent years. In certain cases, employment contracts contain a clause prohibiting any move to a direct competitor.

Sartorius Stedim Biotech is countering demographic change primarily by training junior employees and promoting continuous learning for every employee, accompanied by appropriate performance development processes. This, in turn, creates opportunities for the Group, as training its own employees ensures that Sartorius can meet its own demand for qualified personnel.

In order to smoothly onboard new employees and ensure an appropriate transfer of knowledge, the Group has developed and implemented specific onboarding processes for employees and managers. In addition, Sartorius Stedim Biotech uses a digital HR platform that supports secure and stable processes and enables decisions to be made on the basis of high-quality data.

IT Risks

The Group's business processes are supported by a wide range of specific IT systems and software applications. The technical IT infrastructure and the global network connecting the Group's locations play a decisive role in the operation and optimization of business processes.

However, the increasing dependence on these systems also harbors risks. In addition to others, cyber-attacks represent a significant threat, which can lead to considerable restrictions and even failures of business processes. In the worst-case scenario, such attacks could lead to uncontrolled data loss or manipulation of data, as well as downtime and failure of applications, systems, and facilities.

To minimize these risks, the Group continuously invests in new and reliable technologies and ensures the safe operation of applications, systems, and plants. In the past fiscal year, another important step was taken to ensure the secure operation of the global IT infrastructure and application landscape with the certification according to ISO 27001 and the associated establishment of a management system for information security.

Sartorius Stedim Biotech also works with certified IT security partners, with whom strategic concepts for IT security and efficiency are developed, and systems and equipment for security are tested in regular audits.

Additions and adaptations to dynamic risks and threats in the security strategy are continuously integrated and implemented in the system and application landscape. These measures provide reliable protection and make it possible to detect potential threats at an early stage and respond to them quickly and appropriately.

The Group involves employees in the security strategy by regularly providing them with easy-to-implement but effective strategies for safe behavior and secure handling of information technology in addition to basic training and encourages them to report suspicious activities directly to the IT department for further investigation.

Financial Risks

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, liquidity risks, and tax risks.

Exchange Rate Risks

As a consequence of its global business activities, the Group is exposed to risks arising from currency fluctuations in foreign exchange rates. Since around two-thirds of consolidated sales revenue are generated in foreign currencies and, in turn, approximately two-thirds of this total revenue is in US dollars or in currencies pegged to the US dollar, the Group is positively or negatively impacted by currency effects when converting the currencies of balance sheet items and profit or loss items, respectively. Other currencies relevant to the Sartorius Stedim Biotech Group are the British pound, the Singapore dollar, the South Korean won, the Japanese yen, the Chinese renminbi and the Swiss franc.

The global production network enables the Group to offset the majority of sales revenues generated in foreign currencies against costs likewise incurred in foreign currency. For example, many products for the North American market are manufactured locally, and the Group is therefore not disadvantaged on the cost side in competing with US rivals, insofar as this risk is concerned.

The risk exposure is monitored continuously with a cash flow at-risk model in order to evaluate and steer the remaining risk based on the expected net exposure for the next 12 months and taking into consideration hedging transactions already executed. This is the basis to decide on whether to employ additional derivative financial instruments, especially spot, forward, and swap transactions, to adjust for maximum loss. Please refer to page 184 for further details on fx hedging.

Interest Rate Risks

The Group has concluded fixed interest agreements for about 95% of its debt instruments outstanding so that any changes in the interest rate will not have any meaningful effect on consolidated earnings. The remaining portion of the financing instruments outstanding as of the reporting date is subject to variable interest rates based on short-term money market rates. The Group constantly monitors interest rate trends and the Group's interest rate exposure and arranges for hedging transactions where it is considered necessary and financially advisable to do so for individual loans. As of December 31, 2023, the Group did not hold any interest rate derivatives in its portfolio of financial instruments.

Liquidity Risks

The general risk is that Sartorius Stedim Biotech will not be able to pay its creditors. In order to minimize those liquidity risks in the individual Group companies on the one hand and to optimize the Group's net interest income on the other, a variety of long-term and short-term financing instruments are used. With regard to the maturities of loans, Sartorius generally adopts a risk-averse approach.

As described in chapter 2.11, the Group is largely financed by its majority shareholder Sartorius AG and other affiliated companies of Sartorius Group. Therefore, Sartorius Stedim Biotech depends on its controlling shareholder with regard to financing. Since Sartorius Stedim Biotech is generating a large portion (>75%) of the Sartorius Group's revenues, profits, and cash flows, the risk that the funding will be stopped is very limited.

In September 2023, the Sartorius Group issued long-term, unsecured, and fixed-rate bonds with a total volume of €3 billion. Maturities range from 3 to 12 years with interest rates ranging from 4.375% to 4.875%. The funds were used in particular to refinance the bridge financing taken out for the Polyplus acquisition and also for general corporate financing. Sartorius Stedim Biotech has received corresponding loans by Sartorius AG and its affiliates. The interest rates and maturities are line with those of the underlying bonds.

There are some bilateral credit lines in place on a smaller scale for individual Group companies. Furthermore, cash pooling agreements are used between selected Group companies as the primary instrument for managing liquidity within the Group.

On the level of the Sartorius Group and Sartorius Stedim Biotech Group, there are currently no financing agreements that include clauses regarding compliance with financial covenants.

Tax Risks

Sartorius Stedim Biotech and its subsidiaries do business across the globe and are therefore subject to the tax laws and regimes of various countries. Changes in tax laws, rulings by the courts, and interpretation of the laws by the fiscal authorities or courts in these countries can result in additional tax expenses and payments and thus also affect the corresponding tax items in the statements of financial position and profit or loss.

The central Group Tax department manages the resulting risks by continually monitoring and analyzing tax conditions along with the support of third-party consultants in the respective countries.

In 2021 the OECD published detailed rules to implement the reform of the international tax system, which will ensure that multinational companies are subject to a minimum tax rate of 15%. The minimum tax will apply to multinational companies with a turnover of more than €750 million and therefore have an impact on Sartorius Stedim Biotech. Based on the currently available information regarding the implementation of this regime in the countries with the Group's major business activities, the impact is expected to be rather low.

Compliance Risks

Regulatory Risks

As a partner of the biopharmaceutical industry and healthcare providers, Sartorius Stedim Biotech can also be affected by underlying developments in these areas. In this context, the principle source of risk is the possibility that regulatory authorities, such as the U.S. Food & Drug Administration (FDA), the European Medicines Agency (EMA), and other national or international bodies might adopt a more restrictive approach to the approval of new medications or medical devices of the Group's customers. Due to the breadth of the Group's product portfolio, an increasing number of relevant regulations have to be observed. This includes but is not limited to requirements from authorities like the Environmental Protection Agency or the Department of Agriculture in the USA, or equivalents of theses authorities in other countries. Global initiatives to reduce or even ban the consumption of certain chemicals (for example PFAS) may have a significant impact on the Group's products, their applications and availability, of critical raw materials.

Failure on the part of Sartorius Stedim Biotech's customers to adequately comply with the regulations in force at any given time could delay approval processes or even reduce the number of newly approved drugs and thus also worsen the Group's future prospects in the medium term. With regard to its own products, the Group is also subject to extensive approval, registration, and reporting obligations in numerous countries. Failure to comply with the often complex requirements could result in sales or import bans as well as penalties. The functions responsible for regulatory affairs monitor the affected markets and assess whether the Group needs to make any changes to its processes or actively participate in consultations, if required.

In recent years, environmental, social, and governance regulations have intensified, which play a major role in the reputation of companies. As a manufacturer of numerous plastic products with production sites around the globe, Sartorius faces a multitude of challenges. Accordingly, environmental and sustainability aspects are playing an increasingly important role in many business processes at Sartorius.

Environmental Risks from the production process

Sartorius Stedim Biotech employs a range of raw materials, consumables, and supplies in its manufacturing processes, including chemicals, plastics, metals, electronic components, and packaging. Some production processes generate waste from solvents, that must be recycled and disposed of in accordance with specific regulations. There is a risk that the Group may not adhere to the necessary legal requirements in this area. Environmental damages could affect Sartorius Stedim Biotech's reputation and have legal and financial consequences. To further enhance the Group's agility to fulfill legal requirements and meet industry expectations platforms for environmental, health, and safety data management must be continuously improved.

The responsibility for compliance with all applicable regulations lies with the sites and divisions. The Environment, Health and Safety department provides support and conducts audits. To address environmental concerns and mitigate risks, Sartorius Stedim Biotech has established environmental management systems (in line with ISO 14001: 2015). Most of the Group's production sites, including several in Germany, France, India, Puerto Rico, and China have achieved ISO 14001:2015 certification. These sites have appropriate measures in place to ensure compliance with legal and internal requirements and to continually introduce sustainable technical innovation to enhance environmental aspects of production processes.

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 the Group.

2.9 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, finance, 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 carried out at every level of the Group to ensure efficient internal control: 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 controls 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 controlling systems and for providing the necessary assurances that these steps have been implemented.

Audit Committee of the Board of Directors

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 106.

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 system, representatives from different business and functional areas regularly address issues related to the management of financial and nonfinancial risks (including environmental or social risks related to sustainability topics) in a quarterly reporting process. The risk typology is described on page 50. The Audit Committee of the Board of Directors and the General Management regularly hear the Head of Controlling, who gives an overview of such financial and non-financial risks to which the company is exposed. This organization enables management to take appropriate actions, as the CEO attends the Audit Committee as a guest.

Internal Auditing Department

Based on the annual audit plan approved by the Audit Committee of the Board of Directors, the Internal Auditing department (IA) evaluates and improves the effectiveness of the organization's governance, risk management, and the internal controls in all Sartorius Group companies. As part of the internal control system, IA contributes to the compliance with internal and external rules and standards. Based on the internal audits performed during the year, IA compiles major findings and respective recommendations, which are presented to the Audit Committee of the Board of Directors by the Internal Audit Management and the Head of Trade Compliance. In 2023, the Company continued to review all policies, internal procedures, and organizational measures and update them with the view of continuous improvement and to report annually at the Board of Directors level.

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 (multiyear business plan, budget, etc.) as well as reporting tools in order to monitor and support 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.

The Group has implemented 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, for example, by 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 Financial 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 fully complies 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 Financial Reporting Manual, in order to ensure the pertinence of transactions and assets recognized within the times set.

Code of Conduct and Anti-Corruption Code

The Sartorius Code of Conduct defines the requirements for responsible conduct by all employees of the Sartorius Group. The Code provides employees with guidance, for example on human rights, international social and environmental standards, conflicts of interest, and other general standards and helps them to act in a legally correct and ethically appropriate manner in their daily work.

In addition, Sartorius has implemented an anti-corruption code. The Sartorius Anti-Corruption Code is intended to serve as the basis for sensitizing all employees to the dangers of corruption and, at the same time, as a guideline, manual, and aid in the fight against corruption. For example, it governs the handling of gifts/presents and sponsorships/donations.

The Company ensures that employees are familiar with the content of both codes by requiring them to take part in an annual and mandatory online training course.

The Company also expects its business partners to comply with internationally recognized social and environmental standards, to abide by the laws, uphold the tenets of fair competition, and to respect human rights. These requirements are set forth in the Code of Conduct for Business Partners.

A complaint system ensures that anyone inside or outside Sartorius can report established or soundly suspected breaches of applicable laws, standards, and regulations and internal policies and guidelines. Sartorius provides various channels for this purpose, which are available around the clock in various languages and can be used anonymously if the reporter wishes. The compliance team can be contacted face-to-face, via a telephone hotline, the department’s electronic mailbox, or the whistleblower system. The reporting channels can be found on both the intranet and the external website.

The Company monitors compliance with the provisions of the Codes as part of its Compliance Management System, and once a year, a report is submitted to the Audit Committee of the Board of Directors.

Compliance Management System

The Sartorius Group's Compliance Management System is designed to ensure compliance with legal and regulatory requirements in order to protect the company from sanctions, financial losses, and damage to its reputation. At the same time, it contributes to the quality of Sartorius products and the long-term success of the company. To ensure compliance within the Sartorius Group, Sartorius has implemented a Group-wide standard that is described in a Compliance Management Handbook. This handbook summarizes the responsibilities and authorities of specific functions and sets out the processes for efficient cooperation between them.

Corporate Transactions

The company complies with Regulation (EU) No. 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (the "Market Abuse Regulation") and the AFEP-MEDEF Code, as amended in December 2022. 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, pursuant to Article 19 of the Market Abuse Regulation, these transactions are also prohibited for a period of thirty calendar days prior to the date of publication of the company's annual and half-yearly financial statements.

In accordance with the Market Abuse Regulation and the recommendations of the AFEP-MEDEF Code, hedging transactions of any kind on the company's shares in connection with stock options are prohibited.

In addition, transactions in the company's shares by the persons referred to in Article L. 621-18-2 of the French Monetary and Financial Code must be reported to the Autorité des Marchés Financiers (the "AMF") in accordance with the procedures and time limits set out in Article 223-22-A et seq. of the AMF's General Regulations and Article 19 of the Market Abuse Regulation. These statements are available on the AMF website (www.amf-france.org).

During the year ended December 31, 2023, the members of the Board and persons mentioned in Article L.621 – 18 – 2 of the French Monetary and Financial Code have not carried out transactions on 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 is based on elements of the AMF Internal Control Reference Framework.

2.10 Forecast Report

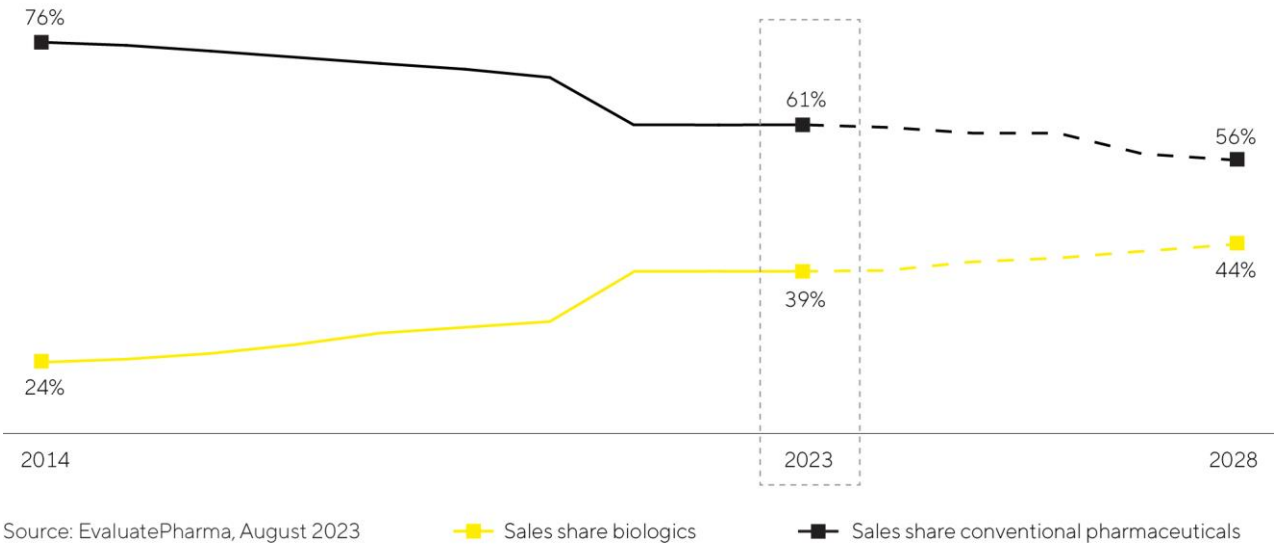
Biopharmaceutical Industry Expected to Grow

Strong, long-term trends drive growth in the pharmaceutical industry, which is almost entirely independent of business cycles. A number of different studies estimate that the global pharmaceutical market will grow by between 3% and 6% annually in the period up to 2027. Within the pharmaceutical market, the biopharma segment has been enjoying particularly strong performance for years and will continue to outperform the market according to various forecasts. Average annual growth is expected to be around 10% in the coming years. The market is anticipated to have a total value of around $695 billion in 2028, which means that the share of biological medications and vaccines as a percentage of total revenue in the global pharmaceutical market could rise from the current 39% to 44%.

Growth is driven in particular by the increasing demand for medications from the growing and ageing global population as well as the great catch-up potential and improved access to biopharmaceuticals in emerging markets. In addition, the number of approved biopharmaceutical medications is steadily increasing. Of the estimated 20,000+ medications in R&D pipelines, almost 45% are based on biological manufacturing processes. 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 incurable. The pharma industry is increasingly concentrating on advanced therapies such as cell and gene therapeutics or biotechnologically processed tissue products. In 2023, more than 1,600 clinical trials with such treatment approaches were conducted, meaning that this area offers significant growth potential over the medium-to-long term. Innovative types of therapy for regenerative medicine and new substance classes, such as antibody-drug conjugates (ADCs) or mRNA-based drugs, are increasing the number and range of approved biopharmaceuticals in the long term and necessitating investments in innovative production technologies. As a result, they are key growth drivers.

Biosimilars, that is, generic versions of reference biologics with comparable or better efficacy or fewer side effects than the original compounds, are also playing an increasingly important role in the growth of the biotechnology market. Current estimates indicate that by 2028, the market could grow by an annual average of around 15% and reach a total value of approximately $67 billion. The significantly lower prices of biosimilars, particularly in emerging and developing countries, are creating new, affordable therapy options and are projected to result in increased demand and rising production volume. The development of national production capacities to meet the growing demand for medications is receiving political support in these countries and is fueling the establishment of local biotech companies. The biosimilars market in industrialized countries is also likely to expand considerably in the coming years due to the expiration of patents for high-selling biopharmaceuticals and an increasing number of approved biosimilars. While such generic medications have been widely used in Europe for many years and have been able to gain significant market share in some areas, progress in the USA has been rather slow until now due to regulatory, patent-law-related, and marketing hurdles. In the next few years, however, the trend toward increased usage of biosimilars is likely to accelerate.

Biopharmaceuticals are Gaining Importance - Growing Share of Sales in the Global Pharmaceutical Market



The biopharmaceutical industry must meet growing demand for medications while producing an increasing number of approved medications and ensuring new types of therapy. Therefore, industry observers expect that worldwide bioreactor capacities will continue to expand 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 efficiency in biopharmaceutical research and production. In the future, the biopharmaceutical market will shift away from a low number of especially high-selling medications that account for a majority of total production volume toward an expanding range of products for smaller groups of patients. Technological progress leads to ongoing improvements in the productivity of biopharmaceutical production processes. Therefore, according to the research and consulting institute BioPlan, many manufacturers will likely rely increasingly on flexibly usable 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 and have a better environmental footprint. 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. A further trend is process intensification, in which several process steps, called unit operations, are interconnected, which, among other things, enables greater product quantities to be manufactured faster while achieving higher quality.

Further Growth Expected in the Laboratory Market

Various market observers expect the market for laboratory instruments and consumables to grow by around 5% annually in the next few years and to reach a total value of around $103 billion in 2027.

Regarding end markets, the greatest dynamics will probably continue to be generated by the pharmaceutical and biopharma industries, in particular, as a result of continuous research into and approval of new medications, the high momentum of scientific and technological innovations, and strong growth in China. For instance, EvaluatePharma expects sector-specific research spending to increase annually by 3.6% during the period from 2023 to 2028. According to market studies, the product area of bioanalytical instruments should particularly benefit from this and further grow at an above-average rate within the laboratory market. According to leading providers of laboratory instruments, demand for laboratory products in the pharmaceutical and biopharmaceutical industries is expected to expand moderately in 2024, despite the

encouraging medium-term outlook. The reasons cited include restrained investment activity in the current interest rate environment, the persistently muted funding environment, especially for small and medium-sized biotech companies, and severe market weakness in China.

Budget increases for academic and public-sector research institutions should continue to act as a growth driver in some countries, while the projected slowdown in global economic growth poses risks to demand from industrial end markets. Market observers continue to expect China and India to generate the highest growth rates in the medium term. Stricter regulatory requirements in a range of industries are also stimulating increased demand for instruments used in sample analysis and quality control. In addition, investments in laboratory infrastructure are becoming more attractive, especially in China, as a result of government-supported efforts to promote innovativeness in several key industries. In previous years, this had entailed a rise in the share of global R&D spending attributable to China.

Sources: BioPlan: 20th Annual Report and Survey of Biopharmaceutical Manufacturing Capacity and Production, April 2023; Evaluate Pharma: World Preview 2023, August 2023; Alliance for Regenerative Medicine: Sector Snapshot, August 2023; citeline: Pharma R&D Annual Review 2023, May 2023; Markets and Markets: Biosimilars Market – Forecast to 2028, 2023; SDi: Global Assessment Report 2023, April 2023; www.fda.gov

Future Business Development

Based on the slight demand recovery since the end of the third quarter of 2023 and the market outlook forecast by industry observers, Sartorius Stedim Biotech expects profitable growth for 2024 and beyond. However, as inventory optimization measures of customers have not yet been fully completed the company projects business momentum to increase only gradually over the course of the year leading to a moderate first half of 2024. In addition, business performance could also be affected by increasing geopolitical tensions going forward.

Against this backdrop of still somewhat unstable market trends and therefore limited visibility, management forecasts an increase in Group sales revenue in the mid to high single-digit percentage range, including a contribution of acquired businesses of around 2 percentage points. In terms of profitability, management expects the underlying EBITDA margin to rise to more than 30% compared to the previous year's figure of 28.3%. The above-average profitability of the Polyplus business will have a slightly positive effect on the margin development. The capex ratio is projected to be around 13%, below the prior-year figure of 17.1%. Excluding potential capital measures and/or acquisitions the ratio of net debt to underlying EBITDA is expected to be 3.5.

Forecasts have been prepared based on historical information and are consistent with accounting policies. All forecast figures are based on constant currencies, as in the past years. Management points out that the dynamics and volatilities in the industry have increased significantly in recent years. In addition, uncertainties due to the changed geopolitical situation, such as the emerging decoupling tendencies of various countries, are playing a greater role. This results in higher uncertainty when forecasting business figures.

2.11 Management Report of the Parent Company Sartorius Stedim Biotech S.A.

Financial Statements of the Parent Company as of December 31, 2023

Sartorius Stedim Biotech S.A. is the parent company of the Group. The company is a mixed holding company. The company from now on is managing investments of the Group and real estates for the French companies.

In 2023, sales revenue generated at Sartorius Stedim Biotech S.A. was €M 2.3 compared to €M 2.6 in 2022. The operating profit is €billion -4.1 versus €billion -4.9 in 2022. The net financing income totalled €M 102.7 versus €M 158.9 in 2021.

The net profit for 2023 is €M 100.6 compared to €M 154.7 in 2022.

Appropriation of the Net Profit

The ASM will suggest to appropriate the net profit of €100,601,092 for the reporting year of 2023 as follows:

- The following amount is to be added to this balance: Year-earlier profit carried forward: €96,730,909
- This would yield a distributable profit of €197,332,001
- Total amount of dividends to be disbursed to shareholders: €63,593,849 excluding treasury shares
- Balance resulting from disbursement: €133,738,152

The remaining amount of €133,738,152 is to be carried over to the next year.

Dividends of the Last Three Financial Years (Information Updated as of 1st January 2023)

The table below lists the amount of the dividend per share distributed, since 2020, as well as the applicable tax provisions.

Exercise	Dividend[1]	Amount eligible for the 40% abatement	Amount not eligible for the 40% abatement	Dividend per shares[1]
Dec. 31, 2022	132,721,775	132,721,775	0	1.44 €
Dec. 31, 2021	116,142,805	116,142,805	0	1.26 €
Dec. 31, 2020	62,681,786	62,681,786	0	0.68 €

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

Proposition of Dividend for the 2023 Financial Year

The Board of Directors has decided to propose on March 27, 2024 Annual Shareholders' Meeting a net dividend of €0.69 per share for the 2023 financial year in comparison with €1.44 for 2022.

The dividends are distributed to the shareholders based on the proportion of the capital they hold.

The dividend will be paid on March 31, 2024.

Dividend Distribution Policy

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

On the March 27, 2023, the Shareholders' Meeting voted a net dividend of €1.44 per share. The payment of the dividend was done on March 31, 2023.

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

Elements Likely to Have an Impact in the Event of a Public Offer

According 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, 2023

As of December 31, 2023, the share capital amounts to eighteen million four hundred and thirty-six thousand thirty-eight euros (€18,436,038). It is divided into ninety-two million one hundred and eighty thousand one hundred and ninety (92,180,190) shares worth twenty euro cent (€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 2023, 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
Year 2017						92,180,190	18,436,038.0
Year 2018						92,180,190	18,436,038.0
Year 2019						92,180,190	18,436,038.0
Year 2020						92,180,190	18,436,038.0
Year 2021						92,180,190	18,436,038.0
Year 2022						92,180,190	18,436,038.0
Year 2023						92,180,190	18,436,038.0

Sartorius Stedim Biotech S.A. Shareholdings as of December 31, 2023

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 S.A. share capital has been distributed as follows:

	December 31, 2021			December 31, 2022			December 31, 2023		
Shareholders	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	68,044,513	73.8%	84.8%	67,844,071	73.6%	84.6%	67,844,071	73.6%	84.6%
Single voting rights									
Double voting rights	68,044,513	73.8%	84.8%	67,844,071	73.6%	84.6%	67,844,071	73.6%	84.6%
Total Sartorius Group	**68,044,513**	**73.8%**	**84.8%**	**67,844,071**	**73.6%**	**84.6%**	**67,844,071**	**73.6%**	**84.6%**
Treasury shares	1,093			12,921			15,191		
Personnel and other shareholders									
General public	24,134,584	26.2%	15.2%	24,323,198	26.4%	15.4%	24,320,928	26.4%	15.4%
Single voting rights	23,827,327	25.8%	14.8%	23,914,989	25.9%	14.9%	23,912,719	25.9%	14.9%
Double voting rights	307,257	0.3%	0.4%	408,209	0.4%	0.5%	408,209	0.4%	0.5%
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	67,844,071	73.6	135,688,142	84.6
Total Sartorius AG	**67,844,071**	**73.6**	**135,688,142**	**84.6**

Control of the Company as of December 31, 2023

Sartorius AG holds, directly or indirectly, 73.6% of the share capital and 84.6% of the outstanding voting rights. Treasury shares are without voting rights.

Staff Shareholdings

None

Treasury Shares Held by Sartorius Stedim Biotech S.A.

15,191

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

Object - Duration	Limit	Use in 2023
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. (EGM 29/03/2022 – Resolution n°17) Granted for a period of 26 months as from 29/03/2022	The limit is €6,000,000 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, it being specified that the limits of the nominal amount of the share capital increases and debt instrument, with or without preferential subscription rights of the shareholders, set from the eighteenth (18th) to the twenty-first (21st) resolutions submitted to this Shareholders' Meeting shall be deducted from this overall limit.	None
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,other than those referred to in the Article L. 411 - 2 of the French Monetary and Financial Code. (EGM 29/03/2022 – Resolution n°18) Granted for a period of 26 months as from 29/03/2022	The limit is deducted on the overall limit of €6,000,000 (increase of the share capital) and on the overall limit of €500,000,000 (debt instruments).	None
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 public offers addressed exclusively to qualified investors or to a restricted circle of investors as defined in the article L. 411 - 2 of the French Monetary and Financial Code. (EGM 29/03/2022 – Resolution n°19) Granted for a period of 26 months as from 29/03/2022	The limit is deducted on the overall limit of €6,000,000 (increase of the share capital) and on the overall limit of €500,000,000 (debt instruments), it being specified that pursuant to Article L. 225 - 136, 2° of the French Commercial Code, the issue of new shares shall be limited to 20% of the share capital per year.	None
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. (EGM 29/03/2022 – Resolution n°20) Granted for a period of 26 months as from 29/03/2022	The limit amount 15% of initial issue of shares, pursuant to the resolutions n°17 to 19 described above.	None
Ability to decide to issue shares and/or securities giving or capable of giving access to the share capital of the Company as consideration for contributions in kind in shares and/or securities giving or capable of giving access to capital, without preferential subscription rights of shareholders. (EGM 29/03/2022 – Resolution n°21) Granted for a period of 26 months as from 29/03/2022	The limit is deducted on the overall limit of 10% of the share capital of the Company at the date of the share capital increase (increase of the share capital) and on the overall limit of €500,000,000 (debt instruments).	None
Ability to increase the share capital through the capitalization of reserves, earnings or premiums or any other sum upon which capitalization would be permitted. (EGM 29/03/2022 – Resolution n° 22) Granted for a period of 26 months as from 29/03/2022	The limit is €6,000,000 (corresponding to the maximum nominal amount of the increase of the share capital), it being specified that it is an independent limit.	None

Ability to issue shares and/or securities giving or capable of giving access to the share capital of the Company, reserved for members of company savings plan, without preferential subscription rights of the shareholders (EGM 29/03/2022– Resolution n° 23) Cancelled by EGM 27/03/2023 – Resolution N°15 Granted for a period of 26 months as from 29/03/2022	The limit is €6,000,000 corresponding to the maximum nominal amount of the increase of the share capital, it being specified that it is an independent limit.	None
Ability to grant free new or existing shares to the benefit of employees or corporate officers (EGM 29/03/2022 - Resolution N°24) Granted for a period of 38 months as from 29/03/2022.	The limit amount of 10% of the Company's share capital calculated on the attribution date	None
Ability to reduce the capital by cancelling shares acquired under buyback program (EGM 29/03/2022 - Resolution n°25) Cancelled by EGM 27/03/2023 – Resolution N°14 Granted for a period of 24 months as from 29/03/2022	The limit is of 10% of the capital of the Company and by period of 24 months.	None
Ability to issue share, without preferential subscription rights of the shareholders to named beneficiaries EGM 27/03/203 – Resolution n°13) Granted for a period of 18 months as from 27/03/2023	Nominal amount of the share capital increase or share capital increases limited to 133,980 Euros	None
Ability to reduce the capital in accordance with Article L. 22 - 10 - 62 of the French Commercial Code; (EGM 27/03/203 – Resolution N°14) Granted for a period of period of twenty-four (24) months as from 27/03/2023	The limit is of 10% of the capital of the Company and by period of 24 months.	None
Ability to issue shares and/or securities giving or capable of giving access to the share capital of the Company, reserved for members of company savings plan, without preferential subscription rights of the shareholders. (EGM 27/03/2023 – Resolution N°15) Granted for a period of a period of twenty-six (26) months as from 27/03/2023	The limit is €6,000,000 corresponding to the maximum nominal amount of the increase of the share capital, it being specified that it is an independent limit.	None

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 2023

None

Share Subscription Options Granted to the Ten Top Non-senior Executive Beneficiaries and Options Exercised by Them in the 2023 Fiscal Year

None

Options Exercised During the Fiscal Year

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

in €	2022	2021	2020	2019	2018
Dividend per share for the fiscal year	1.44	1.26	0.68	0.34	0.57
Number of shares	92,180,190	92,180,190	92,180,190	92,180,190	92,180,190
Dividend corrected per share[1]	**1.44**	**1.26**	**0.68**	**0.34**	**0.57**

1 Compared to the number of shares as of December 31, 2018

Share Subscription Plan

The stock option plans are detailed in the tables above. 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

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.

Directors' Fees

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

- The Directors receive Directors' fees which amount and allocation are fixed by the Shareholders Meeting upon proposal of the Board of Directors and on recommendation of the Remuneration and Nomination Committee. This information is made public in the Universal Registration Document and is available on the Company's website.

- Each Director receives a fixed remuneration of €20,000 per year, to be paid after the annual financial statements have been approved 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 €5,000 per meeting for the first six (6) meetings per year and reimbursement of its expenses in addition to the fixed remuneration. For additional meetings, the members of the Board receive an attendance fee of €3,000 per meeting.

- For their membership on the Audit Committee, each director receives a lump-sum amount of €6,000 per full year of membership in addition to the attendance fee of €3,000. If they chair the committee of the Audit Committee, instead of this, they receive a lump-sum amount of €12,000 per full year that they hold the chairperson in addition to the attendance fee.

- For their membership on the Remunerations & Nominations Committee, each Director receives a lump-sum amount of €4,000 per full year of membership in addition to the attendance fee of €1,500. Insofar as they hold the chair of the Remunerations & Nominations Committee, 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 to the Directors that got an executive top management activity at the Group level, nor for the director(s) representing the employees. In this context, the executive corporate officers, as well as the Director(s) representing the employees, will not receive any remuneration for their membership.

A total of €408,000 has been provisioned in directors' fees for 2023 (payment in 2024).

Compensation of the Executive Management Team[1]

		Base	fixed salaries € in K	Annual incentive € in K	Long Term Incentive € in K
Total 2023	**1,005**	**690**	**0**	**315**
Joachim Kreuzburg 2023	216	150	0	66
René Fáber 2023	789	540	0	249
Total 2022	**1,520**	**788**	**336**	**396**
Joachim Kreuzburg 2022	942	500	214	228
René Fáber 2022	578	288	122	168

1 For more details please refer to the chapter Corporate Governance on pages 81 - 113.

Independent Auditors

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

- KPMG S.A., represented by Nicolas Blasquez.
- Deloitte & Associés, represented by Philippe Battisti.

Payment Terms of Trade Payables & Receivables

Payment Terms for Trade Payables & Receivables

	Article D. 441-1st : Invoices received but not paid at the date of the end of the Year whose term has expired						Article D. 441-2nd: Invoices sent but not paid at the date of the end of the Year whose term has expired					
	0 day	1 à 30 days	31 at 60 days	61 at 90 days	91 days and after	Total	0 day	1 à 30 days	31 at 60 days	61 at 90 days	91 days and after	Total
(A) Repartition of late payment												
Number of invoices concerned	0	7	1	1	12	21	0	3	2	2	2	9
Total Amount of concerned invoices (including all taxes)	0	675,847	6,000	5,829	13,011	700,687	0	-1,056,570	-890558	-920243	-2,196,709	-5,064,080
Percentage of Total amount of purchases including taxes for the year	0%	5%	0%	0%	0%	5%						
Percentage of sales including taxes for the year								6%	5%	6%	13%	30%
(B) Invoices excluded from (A) relating to disputed and and contentious Receivables non recorded												
Number of invoices excluded	0					0	0					0
Total amount of excluded invoices including taxes	0					0	0					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 millions of € and € earning per share	2019	2020	2021	2022	2023
Share capital at end of period					
Share capital (capital stock)	18.4	18.4	18.4	18.4	18.4
Number of shares outstanding	92,180,190	92,180,190	92,180,190	92,180,190	92,180,190
Transactions and financial performance					
Sales revenue (excl. VAT)	2.1	1.9	2.1	2.6	2.3
Profit before tax, employee profit sharing plan, amortization, depreciation and provision expenses (and reversals)	57.2	81.4	115.0	154.9	100.5
Income tax	−0.4	−0.7	−1.4	−0.8	−2.5
Contribution to employee profit-sharing plan	0.0	0.0	0.0	0.0	0.0
Net profit	56.8	81.2	115.5	154.7	100.6
Dividends paid or proposal of dividend	52.5	31.3	62.7	116.1	132.7
Earnings per share					
EPS after tax and employee profit-sharing, but before amortization, depreciation and provision expenses	0.63	0.89	1.26	1.69	1.12
EPS after tax and employee profit-sharing, amortization, depreciation and provision expenses	0.62	0.88	1.25	1.68	1.09
Dividend per share	0.57	0.34	0.68	1.26	1.44
Personnel					
Workforce size	0	0	0	0	0
Personnel costs	0	0	0	0	0
Social security costs	0	0	0	0	0