Consolidated Financial Statements and Notes

04

Statement of Profit or Loss | Other Comprehensive Income

In millions of €	Notes	2023	2022
Sales revenue	[9]	3,395.7	4,174.7
Cost of sales	[10]	–1,828.6	–1,996.6
Gross profit on sales		1,567.1	2,178.1
Selling and distribution expenses	[10]	–634.4	–632.5
Research and development expenses	[10]	–170.8	–179.2
General administrative expenses	[10]	–214.3	–213.6
Other operating income	[11]	73.8	94.3
Other operating expenses	[11]	–117.5	–182.4
Earnings before interest and taxes (EBIT)		503.9	1,064.8
Financial income	[12]	103.9	198.2
Financial expenses	[12]	–221.8	–81.3
Financial result		–118.0	116.9
Profit before tax		385.9	1,181.7
Income taxes	[13]	–95.9	–268.6
Net profit for the period		290.0	913.1
Attributable to:			
Equity holders of Sartorius AG		205.2	678.1
Non-controlling interest		84.9	235.0
Earnings per share	[14]		
Earnings per ordinary share (€) (basic | diluted)		2.99	9.91
Earnings per preference share (€) (basic | diluted)		3.00	9.92

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

The Notes to the Consolidated Financial Statements are an integral part of these statements.

Statement of Comprehensive Income

In millions of €	2023	2022
Net profit for the period	290.0	913.1
Cash flow hedges	12.0	-5.9
Of which effective portion of the changes in fair value	11.8	-56.2
Of which reclassified to profit or loss	0.2	50.3
Income tax on cash flow hedges	-3.6	1.8
Net investment in a foreign operation	-17.0	29.6
Income tax on net investment in a foreign operation	0.0	2.0
Currency translation differences	-37.2	13.8
Items that may be reclassified to profit or loss, net of tax	-45.9	41.3
Remeasurements of the net defined benefit liability	0.2	19.6
Income tax on remeasurements of the net defined benefit liability	0.6	-3.6
Equity instruments at FVOCI	-30.8	16.3
Items that will not be reclassified to profit or loss, net of tax	-30.1	32.3
Other comprehensive income after tax	-75.9	73.5
Total comprehensive income	214.1	986.6
Attributable to:		
Equity holders of Sartorius AG	135.4	753.1
Non-controlling interest	78.6	233.5

Statement of Financial Position

In millions of €	Notes	Dec. 31, 2023	Dec. 31, 2022
Non-current assets			
Goodwill	[15]	3,417.3	1,718.9
Other intangible assets	[15]	2,097.9	1,283.1
Property, plant and equipment	[16][17]	2,080.9	1,714.8
Financial assets	[35]	114.8	150.9
Other assets		3.7	3.3
Deferred tax assets	[18]	83.9	83.6
		7,798.5	4,954.6
Current assets			
Inventories	[19]	1,036.7	1,179.1
Trade receivables	[29]	350.6	484.5
Other financial assets	[30]	36.7	47.4
Current tax assets		60.5	30.8
Other assets		93.2	115.6
Cash and cash equivalents	[28]	379.2	165.9
		1,956.9	2,023.2
		9,755.3	6,977.7

In millions of €	Notes	Dec. 31, 2023	Dec. 31, 2022
Equity			
Equity attributable to Sartorius AG shareholders		2,067.3	1,989.8
Issued capital	[20]	68.4	68.4
Capital reserves	[21]	45.2	44.6
Other reserves and retained earnings	[21]	1,953.7	1,876.7
Non-controlling interest	[22]	690.1	669.1
		2,757.4	2,658.9
Non-current liabilities			
Pension provisions	[23]	56.5	57.5
Other provisions	[24]	21.6	20.2
Loans and borrowings	[31]	4,909.3	1,873.8
Lease liabilities	[17][31]	114.0	112.4
Other financial liabilities	[32]	113.7	216.3
Deferred tax liabilities	[18]	452.7	235.2
		5,667.9	2,515.5
Current liabilities			
Provisions	[24]	46.9	66.4
Trade payables	[33]	499.5	551.9
Loans and borrowings	[31]	254.8	523.8
Lease liabilities	[17][31]	33.2	31.2
Employee benefits	[26]	92.3	114.3
Other financial liabilities	[34]	55.0	144.2
Current tax liabilities		198.3	222.0
Other liabilities	[25]	149.9	149.5
		1,330.0	1,803.4
		9,755.3	6,977.7

Statement of Cash Flows

In millions of €	Notes	2023	2022
Profit before tax		385.9	1,181.7
Financial result	[12]	118.0	–116.9
Depreciation | amortization of intangible and tangible assets	[15][16][17]	342.3	287.1
Change in provisions	[23][24]	–22.4	16.0
Change in receivables	[29][30]	168.6	–86.6
Change in inventories	[19]	118.1	–261.6
Change in liabilities	[25][33][34]	–120.2	–57.3
Interest received	[12]	14.6	7.2
Income taxes paid	[13]	–154.6	–239.4
Other non-cash transactions		3.5	4.0
Cash flow from operating activities		853.6	734.2
Capital expenditures	[15][16]	–559.7	–522.6
Other payments		–22.7	–71.2
Cash flow from investing activities before acquisitions		–582.4	–593.8
Acquisitions of subsidiaries and other business operations	[8]	–2,240.9	–536.1
Cash flow from investing activities		–2,823.3	–1,129.9
Interest paid and other financial charges	[12]	–107.8	–35.6
Dividends paid to:			
- Shareholders of Sartorius AG		–98.2	–85.9
- Non-controlling interest		–36.2	–32.3
Changes in non-controlling interest	[8][22]	–86.1	–41.3
Loans and borrowings raised	[6][31]	6,058.7	1,648.1
Loans and borrowings repaid	[6][31]	–3,564.6	–1,243.3
Cash flow from financing activities		2,165.7	209.9
Change in cash and cash equivalents		196.1	–185.8
Cash and cash equivalents at the beginning of the period		165.9	342.8
Net effect of currency translation on cash and cash equivalents		17.3	8.9
Cash and cash equivalents at the end of the period	[28]	379.2	165.9

Statement of Changes in Equity

In millions of €	Issued capital	Capital reserves	Cash flow hedging reserves	Pension reserves
Balance at Jan. 1, 2022	68.4	43.3	–5.1	–28.1
Net profit for the period				
Cash flow hedges			–3.4	
Remeasurements of the net defined benefit liability				15.9
Currency translation differences				
Net investment in a foreign operation				
Equity instruments at FVOCI				
Tax effects			1.0	–2.6
Other comprehensive income after tax	0.0	0.0	–2.3	13.3
Total comprehensive income	0.0	0.0	–2.3	13.3
Share-based payments		1.3		
Dividends				
Issue of treasury shares for the purchase of BIA Separations				
Purchase price liabilities ALS / BI Israel / CellGenix				
Reclassification of purchase price hedge Albumedix			18.1	
Non-controlling interest ALS				
Purchase of additional shares in subsidiaries				
Change in non-controlling interest				
Other changes in equity				
Balance at Dec. 31, 2022	68.4	44.6	10.7	–14.8
Balance at Jan. 1, 2023	68.4	44.6	10.7	–14.8
Net profit for the period				
Cash flow hedges			10.6	
Remeasurements of the net defined benefit liability				0.1
Currency translation differences				
Net investment in a foreign operation				
Equity instruments at FVOCI				
Tax effects			–3.2	0.6
Other comprehensive income after tax	0.0	0.0	7.4	0.7
Total comprehensive income	0.0	0.0	7.4	0.7
Share-based payments		0.6		
Dividends				
Purchase price liabilities ALS / CellGenix				
Purchase of additional shares in subsidiaries				
Other changes in equity				
Balance at Dec. 31, 2023	68.4	45.2	18.1	–14.1

Retained earnings	Foreign currency translation reserves	Equity attributable to Sartorius AG shareholders	Non-controlling interest	Total equity
1,204.9	–23.1	1,260.3	459.9	1,720.2
678.1		678.1	235.0	913.1
		–3.4	–2.5	–5.9
		15.9	3.7	19.6
	14.9	14.9	–1.1	13.8
	29.6	29.6		29.6
16.3		16.3		16.3
	3.3	1.7	–1.5	0.2
16.3	47.8	75.0	–1.5	73.5
694.3	47.8	753.1	233.5	986.6
		1.3		1.3
–85.9		–85.9	–32.3	–118.1
64.5		64.5	3.6	68.1
4.7		4.7	13.0	17.6
		18.1		18.1
		0.0	7.3	7.3
–30.4		–30.4	–8.7	–39.1
4.0		4.0	–7.2	–3.2
0.0		0.0	0.0	0.0
1,856.2	24.7	1,989.8	669.1	2,658.9
1,856.2	24.7	1,989.8	669.1	2,658.9
205.2		205.2	84.9	290.0
		10.6	1.4	12.0
		0.1	0.1	0.2
	–30.0	–30.0	–7.3	–37.2
	–17.0	–17.0		–17.0
–30.8		–30.8		–30.8
		–2.6	–0.5	–3.0
–30.8	–47.0	–69.7	–6.2	–75.9
174.4	–47.0	135.4	78.6	214.1
		0.6		0.6
–98.2		–98.2	–36.2	–134.4
80.6		80.6	23.8	104.4
–41.0		–41.0	–45.2	–86.2
0.0		0.0	–0.1	0.0
1,972.0	–22.3	2,067.3	690.1	2,757.4

The dividends paid per share are as follows:

	Per share in €	2023 total in millions of €	Per share in €	2022 total in millions of €
Dividend for ordinary shares	1.43	48.9	1.25	42.8
Dividend for preference shares	1.44	49.2	1.26	43.1
		98.2		85.9

Notes to the Financial Statements

1. General Information

Sartorius AG is a listed joint stock corporation established in accordance with German law and is the ultimate parent company of the Sartorius Group. The company is recorded in the German Commercial Register of the District Court of Göttingen (HRB 1970) and has its registered office at Otto-Brenner-Str. 20 in Göttingen, Federal Republic of Germany.

The Sartorius Group is a leading international partner of biopharmaceutical research and the industry. With innovative laboratory instruments and consumables, the Group's Lab Products & Services Division (LPS) concentrates on serving the needs of laboratories performing research and quality control at pharma and biopharma companies and those of academic research institutes. The Bioprocess Solutions Division (BPS), with its broad product portfolio focusing on single-use solutions, helps customers manufacture biotech medications and vaccines safely, fast, and efficiently.

In accordance with Section 315e (1) of the German Commercial Code (HGB) in conjunction with Article 4 of Regulation (EC) No. 1606/2002 of the European Parliament and of the Council of July 19, 2002 (OJ L243 p. 1), the consolidated financial statements of Sartorius AG for the year ended December 31, 2023, were prepared in accordance with the IFRS and IFRIC Standards and Interpretations of the International Accounting Standards Board (IASB) as required to be applied by the European Union. These are available on the following website:

https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en#ifrs-financial-statements

The consolidated financial statements are prepared in euros. Unless otherwise specified, all amounts are disclosed in millions of euros (abbreviated as in millions of €). In some cases, the sums of the figures given in this report may not precisely equal the stated totals, and percentages may not be exact due to rounding.

The Executive Board is scheduled to submit the consolidated financial statements to the Supervisory Board on February 9, 2024.

2. Effects of New or Amended Standards

Standards to Be Applied for the First Time in 2023

The following new accounting rules were applicable for the first time and had no material impact on the consolidated financial statements:

- Amendments to IAS 1 and IFRS Practice Statement 2 – Disclosure of Accounting Policies

The amendments clarify that entities are required to disclose all material accounting policies (previously: "significant accounting policies"). Furthermore, the standard now explicitly defines when information about accounting policies is material and provides examples of accounting policies that are generally considered material. The IFRS Practice Statement 2 was adjusted respectively to provide guidelines for the application of the concept of materiality on disclosures of accounting policies.

- Amendments to IAS 8 – Definition of Accounting Estimates

The amendments concern clarifications of definitions that are intended to help to distinguish between accounting policies and accounting estimates. This distinction is relevant because changes in accounting estimates are required to be recognized prospectively, while those in accounting policies are generally required to be recognized retrospectively. IAS 8 defines the term “accounting estimate” now as “monetary amounts in financial statements that are subject to measurement uncertainty.”

- Amendments to IAS 12 - Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction

The so-called Initial Recognition Exemption in IAS 12 prohibited recognizing deferred taxes on initial recognition of an asset or a liability arising from a transaction that is neither a business combination nor affects accounting profit or tax results. With the amendment, the scope of this exemption is narrowed so that it does not apply to transactions that give rise to equal amounts of taxable and deductible temporary differences. The application of the amendment follows a modified retrospective approach.

From the perspective of the Group, the amendment especially applies to right-of-use assets and lease liabilities under IFRS 16 and any resulting temporary differences for which deferred taxes have to be recognized mandatorily according to the amendments. However, the amendments do not lead to a material impact on the consolidated financial statements so that no retrospective adjustment is required, as the Group already recognized deferred taxes on differences resulting from leases subsequent to initial recognition of the lease.

- Amendments to IAS 12 – International Tax Reform – Pillar Two

The aim of minimum taxation (so-called Pillar Two) of large Groups is that the companies concerned pay an effective corporate tax rate of at least 15%. Because the regulations had not yet entered into force in the reporting period, they had no effect on the current tax expense for fiscal 2023. Germany adopted a law on implementing the minimum taxation in December 2023. Therefore, the Group will be subject to minimum taxation starting in 2024. Based on current knowledge, under considerations of the safe harbor provisions which would apply in at least 2024 and the following two years, the new regulation will not have a material impact on the Group in the foreseeable future. At the moment, the Group's activities in Ireland (nominal tax rate: 12.5%) could potentially have a small impact.

The amendments to IAS 12 introduced a temporary mandatory exemption from the recognition of deferred taxes that would result from the application of the minimum tax provisions. In addition, the amendments require targeted disclosures for the affected entities. The application of the new regulations had no material impact on the present consolidated financial statements.

- IFRS 17 and Amendments to IFRS 17 – Initial Application of IFRS 17 and IFRS 9 – Comparative Information

IFRS 17, Insurance Contracts, establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts within the scope of the standard.

New Standards and Interpretations Not Yet Applied

The following Standards, Interpretations, and Amendments to Standards were not yet applied to the consolidated financial statements of the reporting year, as they had not yet been adopted by the EU, or their application was not mandatory for 2023:

Standard / Interpretation	Title	Applicable for financial years from[1]	Endorsement by the EU Commission
Amendments to IAS 1	Classification of Liabilities as Current or Non-Current, Classification of Liabilities as Current or Non-Current - Deferral of Effective Date, Non-current Liabilities with Covenants	January 1, 2024	Yes
Amendments to IFRS 16	Lease Liability in a Sale and Leaseback	January 1, 2024	Yes
Amendments to IAS 7 and IFRS 7	Supplier Finance Arrangements	January 1, 2024	No
Amendments to IAS 21	Lack of Exchangeability	January 1, 2025	No
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	n/a	No

1 Mandatory application according to EU endorsement or the standards. The Group does not plan to apply any standard early.

To date, the Group does not expect the changes to have a material impact on its consolidated financial statements.

3. Material General Accounting Policies

Material accounting policies are described in the notes in which the respective positions of the consolidated financial statements are further explained if they relate to specific positions. Material general accounting policies are described below.

Basis of Preparation

The consolidated financial statements of the Group are based on the principle of the historical cost of acquisition, construction, or production, with the exception of items measured at fair value, such as derivative financial instruments or financial liabilities resulting from contingent consideration agreements.

Foreign Currency Translation

Subsidiaries' annual financial statements prepared in foreign currencies have been translated pursuant to IAS 21, The Effects of Changes in Foreign Exchange Rates, in accordance with the concept of functional currency. Foreign subsidiaries are regarded as independent subdivisions of the Sartorius Group. Items in the statement of financial position are generally translated at the exchange rates on the reporting date. An exception to this is the equity of consolidated subsidiaries, which is translated at historical cost. Income and expense items are converted at average rates. Any translation differences resulting from the use of different exchange rates for items in the statement of financial position and the statement of profit or loss are recognized in the other comprehensive income in shareholders' equity.

In the individual financial statements of the consolidated companies, transactions in foreign currencies are translated into the functional currency of the company at the exchange rate on the date of the transaction. Monetary assets and liabilities denominated in a foreign currency are translated at the closing rate on the reporting date. Gains and losses on foreign currency transactions are generally recognized in other operating income or expenses. By contrast, currency gains and losses in connection with financing activities, such as loans in a foreign currency, are recognized in the financial result.

For the accounting for the high inflation in Argentina and Türkiye in accordance with IAS 29, Financial Reporting in Hyperinflationary Economies, see Note 12.

For certain defined loans granted on a long-term basis and for which repayment is neither planned nor probable, the Group applies the principle of "net investments in a foreign operation." The foreign currency translation differences resulting from these loans are recognized in other comprehensive income according to IAS 21.32.

The exchange rates for major currencies against the euro were applied as follows:

	Year-end exchange rates		Average annual exchange rates	
	2023	2022	2023	2022
USD	1.10650	1.06695	1.08152	1.05351
GBP	0.86910	0.88584	0.86989	0.85265
CHF	0.92662	0.98370	0.97178	1.00486
JPY	156.81000	140.73000	152.01230	138.04150
SGD	1.46070	1.43060	1.45250	1.45160
KRW	1,428.67000	1,344.77000	1,412.18659	1,357.87961
CNY	7.86730	7.36960	7.66229	7.08120

4. Critical Accounting Judgment and Accounting Estimates

During the preparation of consolidated financial statements, management uses estimates and assumptions based on their best knowledge of the current situation, including expectations of future developments. However, actual results may differ from these estimates. Therefore, these estimates and assumptions are revised on a regular basis, and the impact of all changes is immediately recognized in the statement of profit or loss for the period.

Even after the end of the COVID-19 pandemic, the general uncertainty inherent in accounting estimates and assumptions remains on a higher level than usual, also as a result of uncertainties related to changes in the geopolitical situation. This includes possible decoupling trends of various nations, Russia's ongoing attack on Ukraine, and the developments in the Middle East. Following the exceptionally high growth rates in the recent past resulting from the COVID-19 pandemic, the Group is currently in a normalization phase. In fiscal 2023, this led to a reduction in sales revenues and net result in comparison with the prior year. In the Bioprocess Solutions Division (BPS), especially the almost complete decrease of the demand in connection with the COVID-19 pandemic as well as the reduction in inventories among biopharma customers affected sales revenue negatively in the reporting period. The Lab Products & Services Division (LPS) also recognized a decline in sales revenue, mainly due to an increased reluctance to buy by customers from China and the USA. The Group views the current demand situation after the pandemic as a phase that only temporarily overshadows the fundamental growth drivers of the life science and biopharma markets. Accordingly, robust profitable growth is expected in the years to come. In light of the developments in fiscal 2023, the Group withdrew its expectations for 2025 that were raised twice in former years and set updated mid-term targets for 2028 at the beginning of 2024.

In addition, Group management exercises its judgment in defining the accounting treatment of specific transactions when the existing standards and interpretations do not explicitly treat the accounting problems concerned.

Significant judgments and estimates are especially relevant to the business combinations described in Note 8 and the contingent consideration liabilities recognized in connection with prior acquisitions; the values may vary due to their complex subsequent accounting at fair value (see Note 35).

Other significant judgments and estimates are described in the Notes, which provide explanations for the positions of the consolidated financial statements if they relate to specific positions. The general assumptions and estimates primarily concern the following topics:

Impact of Conflict between Russia and Ukraine

Since the beginning of the war, Sartorius has suspended all business activities in Russia that are not related to humanitarian medical products. This has been done under consideration of the sanctions in force and in line with the practice of other companies in the pharmaceutical and health sector. The sales revenues in Russia were significantly lower than in the prior year, while the Group's business in Russia was already not of a critical size in relation to the Group before the beginning of the conflict. The Group is primarily affected by the indirect consequences of the conflict, for example, increasing energy prices and the impact on the worldwide transportation and logistics sector. The Group is monitoring these indirect consequences and currently assumes that it will be able to maintain its profitability on the current level through appropriate countermeasures, such as price increases.

The Group does not own material non-current assets in Russia, Belarus, and Ukraine. The default risks in relation to trade receivables in Russia are limited due to the immaterial volume of trade receivables on the reporting date. Cash held in Russia of a high single-digit to a low double-digit million euro value remains subject to restrictions regarding its use outside Russia. In particular, material distributions of cash are currently impossible.

Impact of the Middle East Conflict

On October 7, 2023, Israel was attacked by the Hamas terrorist group. Since then, battles have continued between the Israeli army and Hamas. The Group's Israeli site for the production of cell culture media products is located in Beit Haemek in the north of the country. Most of the dispute has been in the areas of the Gaza Strip, the southern region and the Tel Aviv area. Nevertheless, the situation was and is still tense in the north of the country. On-site production as well as transport and logistics had previously been maintained. To date, there is no material impact on the consolidated financial statements.

Impairment of Assets

The carrying amounts of property, plant, and equipment (see Notes 16 and 17) and intangible assets including goodwill (Note 15) are examined to determine whether there is any indication that an asset might be impaired, pursuant to IAS 36, Impairment of Assets. If there is any indication that an asset is impaired, the recoverable amount of the asset is estimated. The recoverable amount of an asset or cash-generating unit is the higher of its fair value – less costs of disposal – and its value in use. If the individual asset's recoverable amount cannot be estimated, the recoverable amount of the asset's cash-generating unit (CGU) is estimated.

The calculation of the value in use is generally based on discounted cash flow methods, which use cash flow projections of up to five years. These projections take into account past experience and represent management's best estimate about future sales revenue and cost developments. Cash flows after the planning period are extrapolated using individual growth rates. Key assumptions on which management has based its determination of the value in use include estimated growth rates, weighted average cost of capital, and tax rates. These estimates can have a material impact on the respective values and ultimately on the amount of any impairment.

Fair Value Measurement

A number of the Group's accounting policies and disclosures require the measurement of fair values for both financial and non-financial assets and liabilities, including Level 3 fair values.

If third-party information, such as broker quotes or pricing services, is used to measure fair values, then management assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of IFRSs, including the level in the fair value hierarchy at which the valuations should be classified.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible.

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety at the same level of the fair value hierarchy as the lowest-level input that is significant to the entire measurement.

Fair value measurement is especially relevant to business combinations (Note 8), financial instruments (Note 35), and share-based payments (Note 42).

Climate-Related Matters

Sustainability is one of the core values of the Group. Accordingly, the Group has publicly committed itself to a long-term oriented reduction of the CO_2 emission intensity (see the Non-Financial Group Statement). The goal is predominantly to reduce actual emissions in relation to the Group's sales revenues. No compensation payments are planned to date, but may be decided on at a later date. The future costs for the reduction measures are considered in the financial forecasts of management and are therefore also considered in valuations made for financial reporting purposes.

The Group set a further long-term sustainability goal in fiscal 2023 and wants to be climate-neutral by 2045. In this context, the Group works toward decarbonization in cooperation with suppliers and customers. For example, electricity requirements are planned to be met by 2030 using energy from renewable sources.

To date, no impact on the assets and liabilities of the Group is observed.

5. Operating Segments

According to IFRS 8, Operating Segments, the identification of reportable operating segments is based on the "management approach;" i.e., the segments are defined in accordance with the internal control and reporting structure of an entity. Therefore, an area of activity is to be considered an operating segment if its business activities may result in revenues and expenses, its operating results are regularly reviewed by the entity's chief operating decision maker (= the Executive Board of Sartorius AG) for the purposes of performance management and resource allocation, and discrete financial information is available in its internal reporting. Consequently, the divisions Bioprocess Solutions (BPS) and Lab Products & Services (LPS) are considered operating segments. Essential criteria for their definition are the products sold in the divisions.

"Underlying EBITDA" is the key performance indicator of the operating segments of the Group, as management uses this performance measure to control the Group and segments. EBITDA corresponds to earnings before interest (financial result), taxes, depreciation, and amortization. "Underlying EBITDA" is an operating result adjusted for extraordinary items. Extraordinary items are expenses and income in connection with acquisitions, structural measures (e.g., restructuring activities, large Group projects), and other income and expenses that distort the sustainable profitability of a segment, such as gains or losses from the disposal of fixed assets and investments.

"Underlying EBITDA" is not a defined performance measure in IFRSs. The Group's definition of underlying EBITDA may not be comparable with similarly titled performance measures and disclosures by other entities.

Apart from that, the recognition and measurement methods for the reportable segments conform to the general Group accounting principles.

For intersegment transactions, internal transfer prices are set at prices corresponding to those that would have been agreed between external third parties in the particular situation and under the given framework conditions. Essentially, these prices are calculated by applying the cost-plus method and the resale price method or a combination of the two methods. The methods for determining the internal transfer prices are documented promptly and updated continuously. The volume of such intersegment transactions is immaterial.

Segment assets and segment liabilities are not reported to the Executive Board as chief operating decision maker on a regular basis and are therefore not part of the segment report.

	Sales revenue		Underlying EBITDA	
In millions of €	2023	2022	2023	2022
Bioprocess Solutions	2,678.2	3,326.5	782.3	1,188.4
Lab Products & Services	717.5	848.2	180.3	222.0
Total	3,395.7	4,174.7	962.7	1,410.4
Reconciliation to the profit before tax				
Depreciation and amortization (excl. extraordinary items)			−342.3	−285.3
Extraordinary items			−116.5	−60.4
Earnings before interest and taxes (EBIT)			503.9	1,064.8
Financial result			−118.0	116.9
Profit before tax			385.9	1,181.7

	Depreciation and amortization	
In millions of €	2023	2022
Bioprocess Solutions	−252.1	−191.0
Lab Products & Services	−90.2	−96.1
Total	−342.3	−287.1

Extraordinary items are as follows:

	Extraordinary items	
In millions of €	2023	2022
M&A projects | Integration costs	−22.9	−16.1
Structuring measures	−80.5	−29.6
Other	−13.1	−14.7
Total	−116.5	−60.4

Geographical Information

External revenue and non-current assets are regionally distributed as follows:

	Sales revenue		Non-current assets	
In millions of €	2023	2022	2023	2022
EMEA	1,315.9	1,550.6	6,122.8	3,313.4
Of which Germany	304.1	350.5	1,487.5	1,369.6
Of which France	128.7	144.7	3,128.1	511.5
Americas	1,280.4	1,543.8	1,290.1	1,280.3
Of which USA	1,161.0	1,442.0	1,285.8	1,277.8
Asia | Pacific	799.4	1,080.3	183.2	123.1
Of which China	276.5	470.6	57.1	58.2
Of which South Korea	171.2	197.5	89.4	25.2
Group	3,395.7	4,174.7	7,596.1	4,716.8

The regional allocation of non-current assets refers to the particular company location; sales revenue is reported according to the customers' location. The non-current assets correspond to property, plant, and equipment as well as to intangible assets (including goodwill).

In fiscal 2023 and the prior year, none of our customers accounted for more than 5 % of sales revenue.

6. Statement of Cash Flows

The statement of cash flows shows the impact of cash inflows and outflows on the cash and cash equivalents of the Group. The cash flows are classified by operating, investing, and financing activities according to IAS 7, Statement of Cash Flows.

In this context, cash and cash equivalents are assets that can be converted into cash in the short term (generally within three months). The amount disclosed in the statement of cash flows primarily includes cash on hand, bank balances, and similar items; it equals the amount presented in the statement of financial position.

The following non-cash transactions were concluded that are not presented in the statement of cash flows:

- Additions to non-current assets related to leases according to IFRS 16 are presented in Note 17.
- The expenses incurred by granting shares to the CEO and two further members of the Executive Board totaled €0.6 million in 2023 and €1.3 million in 2022.

Financial liabilities resulting from financing activities changed as follows:

	Balance at Dec. 31, 2021 in millions of €	Cash flows	Currency effects	Other non-cash changes	Balance at Dec. 31, 2022 in millions of €
Loans and borrowings	1,960.4	434.7	0.0	2.5	2,397.6
Lease liabilities	115.0	-29.9	0.3	58.1	143.6
Liabilities for the acquisition of non-controlling interests	218.0	-39.1	0.0	21.5	200.4
Contingent considerations	4.6	0.0	0.2	-0.6	4.1
Total financial liabilities from financing activities	2,298.1	365.8	0.5	81.4	2,745.7

	Balance at Dec. 31, 2022 in millions of €	Cash flows	Currency effects	Other non-cash changes	Balance at Dec. 31, 2023 in millions of €
Loans and borrowings	2,397.6	2,572.4	0.0	194.1	5,164.2
Lease liabilities	143.6	-37.0	-2.3	42.9	147.2
Liabilities for the acquisition of non-controlling interests	200.4	-66.7	0.0	-37.7	96.0
Contingent considerations	4.1	0.0	0.0	-4.0	0.1
Total financial liabilities from financing activities	2,745.7	2,468.8	-2.3	195.2	5,407.4

7. Scope of Consolidation

Scope of Consolidated Financial Statements

The consolidated financial statements of Sartorius AG include the annual financial statements of all major companies controlled directly or indirectly via its subsidiaries by Sartorius AG. Under IFRS 10, Consolidated Financial Statements, control exists if the following criteria are met:

- Power, i.e., an investor must have existing rights that give it the current ability to direct the relevant activities of an investee that affect the latter's returns;

- Exposure, or rights, to variable returns from the involvement with an investee;

- Ability to use power in a way that significantly affects the investor’s returns from the investee.

Such investees are included in the consolidated financial statements from the time when Sartorius AG or its subsidiaries acquire such control. They are no longer included as of the time control is lost, e.g., due to a sale to an entity outside the Group.

Subsidiaries are included on the basis of their annual financial statements for the same reporting period as the parent company, using uniform Group-wide accounting policies.

All intragroup assets and liabilities, equity, income, expenses, and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

	Ownership in %	Consolidated
Sartorius AG, Göttingen, Germany	Parent company	X
Sartorius Stedim Biotech S.A., Aubagne, France, along with its subsidiaries	73.6	X

EMEA

Sartorius Stedim Belgium S.A., Woluwe-Saint-Lambert, Belgium	100.0	X
ACCESSIA PHARMA S.A., Herstal, Belgium	100.0	X
XpressBioX SRL, Herstal, Belgium	100.0	X
XPRESS BIOLOGICS S.A., Herstal, Belgium	100.0	X
Sartorius Xell GmbH, Schloß Holte-Stukenbrock, Germany	100.0	X
Sartorius Stedim Biotech GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim Plastics GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim North America Holding GmbH, Göttingen, Germany	100.0	X
Sartorius Stedim Systems GmbH, Guxhagen, Germany	100.0	X
Sartorius CellGenix GmbH, Freiburg i. B., Germany	76.0	X
Metreon Bioproducts GmbH, Freiburg i. B., Germany	100.0	
Sartorius Stedim Cellca GmbH, Ulm, Germany	100.0	X
Sartorius Stedim Nordic oy, Helsinki, Finland	100.0	X
Sartorius Stedim FMT S.A.S., Aubagne, France	100.0	X
Sartorius Stedim France S.A.S., Aubagne, France	100.0	X
Sartorius Stedim Chromatography Resins S.A.S., Cergy, France	100.0	X
PolygenX 2 S.A.S., Illkirch-Graffenstaden, France	100.0	X
PolygenX A S.A.S., Illkirch-Graffenstaden, France	100.0	X
PolygenX D S.A.S., Paris, France	100.0	X
POLYPLUS-TRANSFECTION S.A., Illkirch-Graffenstaden, France	100.0	X
Sartorius Stedim Aseptics S.A.S., Lourdes, France	100.0	X
BIO ELPIDA S.A.S., Saint-Priest, France	100.0	X
Sartorius Chromatography Equipment S.A.S., Pompey, France	100.0	X
Sartorius Stedim Ireland Ltd., Dublin, Ireland	100.0	X
Biological Industries Israel Beit Haemek Ltd., Kibbutz Beit Haemek, Israel	100.0	X
Sartorius Stedim Italy S.p.A., Florence, Italy	100.0	X
Sartorius Stedim Netherlands B.V., Amersfoort, Netherlands	100.0	X
Sartorius Stedim Austria GmbH, Vienna, Austria	100.0	X
Sartorius Stedim Poland Sp. z o.o., Kostrzyn, Poland	100.0	X
LLC Sartorius Stedim RUS, St. Petersburg, Russia	100.0	X
Sartorius Stedim Data Analytics AB, Umeå, Sweden	100.0	X
Sartorius Stedim Switzerland AG, Tagelswangen, Switzerland	100.0	X
Sartorius BIA Separations, separacijske tehnologije, d.o.o., Ajdovščina, Slovenia	100.0	X
Sartorius Stedim Spain S.A., Madrid, Spain	100.0	X
Sartorius Stedim Bioprocess S.A.R.L., M'Hamdia, Tunisia	100.0	X
Sartonet Seperasyon Teknolojileri Anonim Şirketi, Istanbul, Türkiye	100.0	X
Sartorius Stedim Hungária Kft., Budapest, Hungary	100.0	X
Sartorius Stedim BioOutsource Ltd., Glasgow, UK	100.0	X
Sartorius Stedim UK Ltd., Epsom, UK	100.0	X
Sartorius Stedim Lab Ltd., Stonehouse, UK	100.0	X
Sartorius Stedim Chromatography Systems Ltd., Royston, UK	100.0	X
TAP Biosystems Group Ltd., Royston, UK	100.0	X
The Automation Partnership (Cambridge) Ltd., Royston, UK	100.0	X
Albumedix Ltd., Nottingham, UK	100.0	X

Americas		
Sartorius Stedim Filters Inc., Yauco, Puerto Rico	100.0	X
WaterSep BioSeparations LLC, Boston, Massachusetts, USA	100.0	X
Sartorius DC BPS Americas, Inc., Dover, Delaware, USA	100.0	X
Sartorius Stedim North America Inc., Dover, Delaware, USA	100.0	X
CellGenix Inc., Wilmington, Delaware, USA	100.0	
Polyplus Transfection Inc., Wilmington, Delaware, USA	100.0	X
Asia | Pacific		
Sartorius Stedim Australia Pty. Ltd., Dandenong South, Victoria, Australia	100.0	X
Sartorius Stedim Biotech (Beijing) Co. Ltd., Beijing, China	100.0	X
Biowire Shanghai Ltd., Shanghai, China	100.0	
Sartorius Stedim (Shanghai) Trading Co. Ltd., Shanghai, China	100.0	X
Kobmast Ltd., Central Hong Kong, Hong Kong	100.0	
Sartorius Stedim India Pvt. Ltd., Bangalore, India	100.0	X
Sartorius Stedim Japan K.K., Tokyo, Japan	100.0	X
Sartorius Stedim Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia	100.0	X
Polyplus Transfection Pte. Ltd., Singapore, Singapore	100.0	
Sartorius Stedim Singapore Pte. Ltd., Singapore, Singapore	100.0	X
Sartorius Korea Biotech LLC, Seoul, South Korea	79.0	X
Sartorius Korea Operations LLC, Seoul, South Korea	100.0	X
Sartorius Stedim Taiwan Inc., New Taipei City, Taiwan	100.0	X
EMEA		
Sartorius Belgium S.A., Woluwe-Saint-Lambert, Belgium	100.0	X
Sartorius Weighing Technology GmbH, Göttingen, Germany	100.0	X
Sartorius Corporate Administration GmbH, Göttingen, Germany	100.0	X
SI Weende-Verwaltungs-GmbH, Göttingen, Germany	100.0	X
SIV Weende GmbH & Co. KG, Göttingen, Germany	100.0	X
SI Grone 1-Verwaltungs-GmbH, Göttingen, Germany	100.0	X
SIV Grone 1 GmbH & Co. KG, Göttingen, Germany	100.0	X
SIV Grone 2 GmbH, Göttingen, Germany	100.0	X
SWT Treuhand GmbH, Göttingen, Germany	100.0	X
Sartorius Ventures GmbH, Göttingen, Germany	100.0	X
LabTwin GmbH, Berlin, Germany	94.0	
Life Science Factory gGmbH, Göttingen, Germany	100.0	
Life Science Factory Management GmbH, Göttingen, Germany	100.0	
Life Science Valley GmbH, Göttingen, Germany	80.0	
Sartorius Immobilien Jena GmbH & Co. KG, Göttingen, Germany	100.0	
Sartorius Lab Holding GmbH, Göttingen, Germany	100.0	X
Sartorius Lab Instruments GmbH & Co. KG, Göttingen, Germany	100.0	X
ALS Automated Lab Solutions GmbH, Jena, Germany	62.5	X
Sartorius Biohit Liquid Handling Oy, Helsinki, Finland	100.0	X
Sartorius Nordic oy, Helsinki, Finland	100.0	X
Sartorius France S.A.S., Dourdan, France	100.0	X
Sartorius Ireland Ltd., Dublin, Ireland	100.0	X
Sartorius Israel Ltd., Kibbutz Beit Haemek, Israel	100.0	X
Sartorius Italy S.r.l., Florence, Italy	100.0	X
Sartorius Netherlands B.V., Amersfoort, Netherlands	100.0	X

Sartorius Finance B.V., Amsterdam, Netherlands	100.0	X
Sartorius Austria GmbH, Vienna, Austria	100.0	X
Sartorius Poland Sp. z o.o., Kostrzyn, Poland	100.0	X
LLC Sartogosm, St. Petersburg, Russia	100.0	X
LLC Sartorius RUS, St. Petersburg, Russia	100.0	X
Sartorius Spain S.A., Madrid, Spain	100.0	X
Sartorius South Africa (Pty) Ltd., Midrand, South Africa	100.0	X
Sartorius Hungária Kft., Budapest, Hungary	100.0	X
Essen BioScience Ltd., Royston, UK	100.0	X
Sartorius UK Ltd., Epsom, UK	100.0	X
Americas		
Sartorius Argentina S.A., Buenos Aires, Argentina	100.0	X
Sartorius do Brasil Ltda., São Paulo, Brazil	100.0	X
Sartorius Canada Inc., Oakville, Canada	100.0	X
Sartorius de México S.A. de C.V., Tepotzotlán, Mexico	100.0	X
Sartorius BioAnalytical Instruments, Inc., Dover, Delaware, USA	100.0	X
Sartorius DC LPS Americas, Inc., Dover, Delaware, USA	100.0	X
Sartorius North America, Inc., Dover, Delaware, USA	100.0	X
Sartorius Corporation, Dover, Delaware, USA	100.0	X
Asia | Pacific		
Sartorius Australia Pty. Ltd., Dandenong South, Victoria, Australia	100.0	X
Sartorius Scientific Instruments (Beijing) Co. Ltd., Beijing, China	100.0	X
Sartorius ForteBio (Shanghai) Co. Ltd., Shanghai, China	100.0	X
Sartorius Lab (Shanghai) Trading Co., Ltd., Shanghai, China	100.0	X
Sartorius (Shanghai) Enterprise Management Co., Ltd., Shanghai, China	100.0	X
Sartorius (Shanghai) Trading Co. Ltd., Shanghai, China	100.0	X
Sartorius Hong Kong Ltd., Kowloon, Hong Kong	100.0	X
Sartorius India Pvt. Ltd., Bangalore, India	100.0	X
Sartorius Japan K.K., Tokyo, Japan	100.0	X
Sartorius Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia	100.0	X
Sartorius Singapore Pte. Ltd., Singapore, Singapore	100.0	X
Sartorius Korea LLC, Seoul, South Korea	100.0	X
Sartorius (Thailand) Co. Ltd., Bangkok, Thailand[1]	32.7	X
Sartorius Vietnam Co. Ltd., Ho Chi Minh City, Vietnam	100.0	X

1 Sartorius Thailand is included in the scope of consolidation due to contractual agreements (see also Note 22).

The companies marked as "non-consolidated" in the above table were not included in the scope of consolidation because the figures were of minor importance for assessing the actual net worth, financial position, and profitability of the Sartorius Group. The sales revenue and total assets of the non-consolidated companies taken together account for less than 2% of the Group figures. All companies identified with an "X" are fully consolidated.

The following companies were included in the scope of consolidation for the first time in fiscal 2023:

- Sartonet Seperasyon Teknolojileri Anonim Şirketi ("Sartonet"), Istanbul, Türkiye
- ACCESSIA PHARMA S.A., Herstal, Belgium

- XPRESS BIOLOGICS S.A., Herstal, Belgium
- XpressBioX SRL, Herstal, Belgium
- BIO ELPIDA S.A.S., Saint-Priest, France
- POLYPLUS-TRANSFECTION S.A., Illkirch-Graffenstaden, France
- PolygenX 2 S.A.S., Illkirch-Graffenstaden, France
- PolygenX A S.A.S., Illkirch-Graffenstaden, France
- PolygenX B S.A.S., Illkirch-Graffenstaden, France
- PolygenX C S.A.S., Illkirch-Graffenstaden, France
- PolygenX D S.A.S., Paris, France
- Polyplus Transfection Inc., Wilmington, Delaware, United States
- Sartorius (Shanghai) Enterprise Management Co., Ltd., Shanghai, China
- Sartorius Lab (Shanghai) Trading Co., Ltd., Shanghai, China
- Sartorius DC LPS Americas, Inc., Dover, Delaware, United States
- Sartorius DC BPS Americas, Inc., Dover, Delaware, United States
- Sartorius Finance B.V., Amsterdam, Netherlands

Control over Sartonet was acquired on June 1, 2023 as part of a business combination. The control of the following companies was acquired in the course of the acquisition of the Polyplus Group: ACCESSIA PHARMA S.A., XPRESS BIOLOGICS S.A., XpressBioX SRL, BIO ELPIDA S.A.S., POLYPLUS-TRANSFECTION S.A., PolygenX 2 S.A.S., PolygenX A S.A.S., PolygenX B S.A.S., PolygenX C S.A.S., PolygenX D S.A.S., Polyplus Transfection Inc. Following the acquisition, PolygenX C S.A.S. was merged into PolygenX B S.A.S., which in turn was merged into PolygenX A S.A.S. For information on the acquisitions, see Note 8.

The entities Sartorius (Shanghai) Enterprise Management Co., Ltd., Shanghai, China, Sartorius Lab (Shanghai) Trading Co., Ltd., Shanghai, China, Sartorius DC LPS Americas, Inc., Dover, Delaware, Sartorius DC BPS Americas, Inc., Dover, Delaware, Sartorius Finance B.V., Amsterdam, Netherlands were newly founded in 2023.

In fiscal 2023, the Group acquired an additional 10 % of the share capital in Sartorius Korea Biotech LLC, Seoul, South Korea, for a purchase price of approximately €20.8 million. The Group now owns 79 % of the share capital and voting rights of the entity. In addition, the Group's share in Sartorius CellGenix GmbH, Freiburg i. B., Germany, was increased by 25 % from 51 % to 76 % (see Note 22 for details).

In fiscal 2023, the entity Biological Industries Hong Kong Ltd., Kowloon, Hong Kong, was liquidated.

For materiality reasons, the equity method was not applied to the investment in Distribo GmbH (ownership percentage: 26 %).

8. Business Combinations

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed by the Group, as well as the consideration transferred, are recognized at fair value at the acquisition date. Expenses directly related to business combinations are reported in profit or loss of the period.

Accounting for acquisitions requires certain estimates and assumptions to be made, especially about the fair value of the consideration transferred, as well as the fair values of intangible assets and of the property, plant, and equipment acquired, liabilities assumed at the acquisition date, as well as the useful lives, including churn rates, of intangible assets and property, plant, and equipment acquired. Their measurement is largely based on projected cash flows and on risk equivalent cost of capital for their discounting. Differences between the expected and actual cash flows may have a material impact on future Group results.

For material acquisitions, purchase price allocation is generally carried out with the assistance of independent third-party valuation specialists. The valuations are based on the information available at the acquisition date.

If there is a non-controlling interest in an acquiree subsequent to an acquisition, and the Group is committed to acquiring this remaining interest in the future on the basis of written put options, the Group assesses whether substantially all of the risks and rewards of ownership of this interest had been transferred to the Group by the acquisition date. In case material risks and rewards remain with the non-controlling shareholders, the Group decided to continue to present the non-controlling interest in the acquiree. The liability that needs to be recognized for such obligations is recognized against retained earnings at the acquisition date. The Group decided to recognize any changes in connection with the subsequent accounting directly in equity.

Acquisition of Sartonet

On June 1, 2023, the Group acquired 100% of the shares in Sartonet Seperasyon Teknolojileri Anonim Şirketi ("Sartonet") headquartered in Istanbul, Türkiye, via its sub-group Sartorius Stedim Biotech stock-listed in France. The company imports and distributes the products of the Sartorius Group in Türkiye and employed around 40 employees as of the acquisition date. The consideration transferred amounts to approximately €29.1 million and was paid in cash. Expenses directly attributable to the acquisition of €0.2 million were recognized in other expenses. Goodwill is allocated to the segment Bioprocess Solutions (BPS) and reflects, among other things, securing the market presence and business opportunities in the region, the workforce acquired, and other intangible assets not separable. Goodwill is not deductible for tax purposes.

The purchase price allocation is as follows:

In millions of €	Final purchase price allocation
Customer relationship	11.0
Trade receivables	2.5
Inventories	1.3
Other assets	0.4
Cash and cash equivalents	6.4
Deferred taxes - net	−2.2
Other liabilities	−0.7
Net assets acquired	18.5
Purchase price	29.1
Goodwill	10.5

Acquisition of Polyplus

On July 18, 2023, the Group acquired 100 % of the shares and voting rights of PolygenX A, the parent company of the Polyplus Group, via its sub-group Sartorius Stedim Biotech stock-listed in France. Headquartered in Strasbourg, France, Polyplus was founded in 2001 and has locations in France, Belgium, the U.S., and China. With around 270 employees, Polyplus develops and produces transfection as well as other DNA/RNA delivery reagents and plasmid DNA in high, GMP-grade quality. These are key components in the production of viral vectors used in cell and gene therapies and other advanced medicinal therapeutic products.

Due to the size of the transaction and the complexity inherent in the identification and measurement of intangible assets, for the consolidated financial statements 2023, the purchase price allocation was performed on a preliminary basis in accordance with IFRS 3 – based on current knowledge of management – with regard to the intangible assets recognized and the resulting deferred taxes. The following valuations were considered:

In millions of €	Preliminary purchase price allocation
Other intangible assets	888.8
Property, plant and equipment	35.5
Inventories	6.9
Trade receivables	17.3
Other assets	7.5
Cash and cash equivalents	8.2
Deferred taxes - net	–217.4
Trade payables	–5.4
Loans and borrowings	–194.1
Lease liabilities	–9.3
Other liabilities	–14.8
Net assets acquired	523.2
Purchase price	2,226.4
Goodwill	1,703.2

For the acquisition of the Polyplus Group, a purchase price amounting to approximately €2,226.4 million was paid in cash. The directly attributable acquisition-related costs totaled €11.8 million and were recognized in other expenses. The intangible assets recognized separately on a preliminary basis are related to technologies (approx. €790 million) with useful lives of up to 18 years as well as customer relationships (€48 million) and brands (€36 million) with limited useful lives. Goodwill is expected to reflect the expansion of the product offering of the Bioprocess Solutions Division (BPS) and synergies, especially from the combination of the acquired business with the existing product portfolio with a focus on cell and gene therapies. In particular, the products of Polyplus are key components in the manufacture of cell and gene therapies and provide access to a significant share in this growing, early-stage market. In addition, goodwill is expected to reflect other non-separable intangible assets, such as the know-how of the acquired workforce. Goodwill is not deductible for tax purposes.

Effects of the Acquisitions on the Group's Sales Revenue and Net Result in 2023

Since their first-time consolidation, the companies acquired in the course of the acquisition of the Polyplus Group contributed sales revenue of approximately €38.6 million to the sales of the Group. Excluding items from the preliminary purchase price allocation and financing expenses for this acquisition, Polyplus contributed an amount of approximately €13.6 million to the Group's net result since the acquisition date. If the acquisition had taken place as of January 1, 2023, sales revenue of the Group for 2023 would have amounted to around €3,430.7 million and the Group's net result would have amounted to around €234.5 million.

Since the entity is acting as a distributor, there would be no material effect on the Group sales revenues and net result if the acquisition of Sartonet had been completed as of January 1, 2023.

Notes to the Statement of Profit or Loss

9. Sales Revenue

Revenue is recognized according to IFRS 15, Revenue from Contracts with Customers. Revenue is disaggregated into the categories of "nature of products" and "geographical regions" as well as according to "type of revenue" (recurring/non-recurring) as shown in the following table. The categorization by "nature of products" corresponds to the reportable segments, as the identification of the reportable segments is based in particular on the different products sold. Regional disaggregation of revenue is based on the customers' location. The Group defines recurring revenue as revenue from consumables and services, while non-recurring revenue is primarily defined as instrument revenue.

			2023			2022
In millions of €	Group	Bioprocess Solutions	Lab Products & Services	Group	Bioprocess Solutions	Lab Products & Services
Sales revenue	3,395.7	2,678.2	717.5	4,174.7	3,326.5	848.2
EMEA	1,315.9	1,042.2	273.7	1,550.6	1,260.5	290.1
Americas	1,280.4	1,047.8	232.6	1,543.8	1,240.8	303.0
Asia | Pacific	799.4	588.2	211.2	1,080.3	825.2	255.1

			2023			2022
In millions of €	Group	Bioprocess Solutions	Lab Products & Services	Group	Bioprocess Solutions	Lab Products & Services
Sales revenue	3,395.7	2,678.2	717.5	4,174.7	3,326.5	848.2
Recurring sales revenue	2,340.8	2,022.0	318.8	2,921.0	2,535.5	385.5
Non-recurring sales revenue	1,054.9	656.1	398.7	1,253.7	791.0	462.8

The Group produces and sells instruments and consumables as well as related services in its two segments BPS and LPS. The Group satisfies its performance obligations depending on the goods to be transferred and the services promised. Most of the revenues from the sale of products are recognized at the point in time where the customer obtains control over the goods. Typically, this is when the significant risks and rewards of ownership of the goods are transferred to the customer. Therefore, the point in time may vary depending on the agreement with the individual customer.

For complex products that require installation at the customer's site, revenue is recognized upon formal customer acceptance. To a low extent, revenue is recognized over time in the customer-specific project business. In these cases, revenue is recognized according to project progress, which is measured based on the percentage of costs to date compared to total estimated contract costs. The amount of actual costs incurred to date appropriately reflects the progress and the transfer of control to the customer, as the Group has a right to reimbursement of costs to date plus an appropriate margin if the project is canceled by the customer without cause. Revenue from services is generally recognized when the services are performed or have been performed. If the services are performed continuously over a period of time, the Group recognizes the related revenue over time. In this case, revenue is generally recognized pro rata in relation to the total contract period. Product sales are typically accompanied by the legally required warranty. Any material extended warranties are accounted for as separate performance obligations.

According to the general payment terms, customer payments are due in the short term, typically within 30 to 60 days. To some extent, the Group obtains advance payments, e.g., to avoid credit risks. Therefore, the Group regularly has contract liabilities (payments received on account of orders). In addition, the Group recognizes contract liabilities in connection with service contracts (deferred revenues) when customers pay in advance.

The contracts typically do not contain significant financing components. The Group uses the practical expedient provided by IFRS 15 regarding the existence of a significant financing component. This means that a financing component is only taken into consideration when the length of time between the transfer of goods or services and the receipt of consideration is expected to exceed one year and the effect is material.

The aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period amounted to €1,609.7 million (2022: €1,998.3 million). The Group expects that these unsatisfied performance obligations will, for the most part, be satisfied in 2024.

There were no extraordinary changes in the carrying amounts of the contract liabilities and contract assets in the reporting period. Revenue in the amount of €235.2 million was recognized in the reporting period that was included in the contract liability balance at the beginning of the reporting period (2022: €249.1 million).

The balances of trade receivables and contract assets are presented in Note 29. For details on the impairment losses on trade receivables and contract assets recognized in the reporting period, see Note 40. The following table shows the balances of the Group's contract liabilities.

In millions of €	Line item in statement of financial position	Carrying amount Dec. 31, 2023	Carrying amount Dec. 31, 2022
Deferred revenue	Other liabilities	85.2	76.5
Payments received on account of orders	Trade payables	193.0	247.1
Total contract liabilities		278.2	323.5

10. Functional Costs

The statement of profit or loss is prepared according to the function of expense method, also known as "cost of sales." The expenses are allocated to the respective functional areas of production, sales and distribution, research and development, as well as to general administration.

Expenses relating to cross-functional initiatives or projects are assigned to the respective functional costs based on an appropriate allocation principle.

The "Cost of sales" item includes the cost of products sold and the cost of merchandise sold. In addition to directly attributable expenses, such as raw materials and supplies, employee benefits expenses, and energy expenses, cost of sales also includes overheads that can be attributed to the manufacturing area, and the corresponding depreciation and amortization.

The selling and distribution expenses relate in particular to the costs of the sales organization, distribution, and marketing.

Research and development expenses comprise the cost of research and product and process development, provided they are not capitalized.

The "General administrative expenses" item primarily comprises employee benefits expense and the cost of materials of the general administrative area.

All profit and loss items that cannot be allocated to one of the functional areas mentioned are recognized as other operating income and expenses. These essentially include effects from currency translation, allowances on trade receivables, and extraordinary income and expenses.

Since fiscal 2023, extraordinary income and expenses are generally allocated to the respective functions. The prior year's figures have been adjusted accordingly. For this purpose, the following reclassifications were made from other operating income and expenses to the functional costs:

In millions of €	2022
Cost of sales	−18.4
Selling and distribution expenses	−3.9
Research and development expenses	−1.3
General administrative expenses	−13.1
Other operating income and expenses	36.7

Income from grants related to expenses is recognized as other income when there is reasonable assurance that the conditions associated with the grants will be complied with and the grants will be received.

The total expenses incurred by the functional areas for materials and employee benefits are as follows:

Raw Materials and Supplies

In millions of €	2023	2022
Expenses for raw materials and supplies and for purchased goods (incl. changes in inventories)	683.9	774.7
Cost of purchased services	268.5	294.9
	952.5	1,069.7

Employee Benefits

In millions of €	2023	2022
Wages and salaries	953.2	912.3
Social security	206.2	198.2
Expenses for retirement benefits and pensions	22.0	23.4
	1,181.5	1,133.9

11. Other Operating Income and Expenses

In millions of €	2023	2022
Currency translation gains	54.4	74.4
Income from the decrease in allowances for bad debts	5.1	6.2
Income from grants	6.2	3.9
Other income	8.0	9.8
Other operating income	73.8	94.3
Currency translation losses	-70.8	-125.4
Extraordinary expenses	-23.0	-23.7
Allowances for bad debts	-8.1	-7.6
Other expenses	-15.6	-25.8
Other operating expenses	-117.5	-182.4
Other operating income and expenses	-43.7	-88.1

The item reported as income from grants discloses the grants for expenses (essentially related to research and development projects), which are recognized as income as soon as there are sufficiently reliable indications that the necessary prerequisites have been met.

Since fiscal 2023, only those extraordinary income and expenses are reported under other operating income and expenses that cannot be allocated to the functional areas. The prior year's figures have been adjusted accordingly (see Note 10). For details about the types of extraordinary income and expenses, see Note 5.

In 2023, currency translation gains include €0.6 million (2022: €50.3 million) from the reclassification of amounts in relation to hedging relationships that had previously been recognized in equity (see Note 37).

12. Financial Result

In millions of €	2023	2022
Interest and similar income	4.6	1.0
- of which from affiliated companies	0.5	0.1
Income from derivative financial instruments	6.2	5.3
Income from valuation of contingent considerations and similar agreements	74.4	148.9
Other financial income	18.6	42.9
Financial income	103.9	198.2
Interest and similar expenses	-142.6	-34.5
Expenses for derivative financial instruments	-2.9	-12.5
Interest for pensions and other retirement benefits	-2.3	-0.7
Share of profit or loss of associates	-6.5	0.0
Impairment of investments in non-consolidated entities	-20.0	0.0
Expenses from adjustments for hyperinflation (IAS 29)	-4.7	0.0
Other financial charges	-42.8	-33.6
Financial expenses	-221.8	-81.3
Financial result	-118.0	116.9

Other financial expenses and income include the effects of compound interest and the measurement of loans and other financial liabilities denominated in foreign currencies. The income from the valuation of contingent considerations results to the extent of €70.4 million from the remeasurement of the contingent consideration in connection with the acquisition of BIA Separations (prior year: €148.0 million). See Note 35 for details about this liability.

In fiscal 2023, the Group acquired a subsidiary based in Türkiye (see Note 8). Türkiye was assessed as a hyperinflationary economy in the reporting period 2023 and, therefore, IAS 29, Financial Reporting in Hyperinflationary Economies, was applied. The net gains or losses from the inflation of material non-monetary assets and liabilities, as well as equity and all items in the income statement, were recognized in the financial result. The general consumer price index of the Turkish Statistical Institute was applied (index as of May 2023: 1,300.6 and as of end of 2023: 1,859.4). An inflation adjustment was also made for the sales entity in Argentina in the period 2023. The general consumer price index of the "indec" was used (Instituto Nacional de Estadística y Censos; index as of end of 2022: 1,134.6 and as of end of 2023: 2,816.1). The effect in the prior year was not material.

13. Income Taxes

In millions of €	2023	2022
Current income taxes	-101.0	-278.1
Deferred taxes	5.1	9.5
Of which from tax losses	1.6	-9.7
Of which from temporary differences	3.5	19.2
	-95.9	-268.6

Current income taxes are calculated based on the particular national taxable income for the year, as well as according to national tax regulations. In addition, current taxes may contain adjusted amounts to cover any tax payments or refunds for years not yet assessed.

The following table explains the differences between the tax expense expected and the income tax expenses reported for the particular fiscal year. The expected tax rate is determined based on a weighted average tax rate applied to the pre-tax income of the Group.

In millions of €	2023	2022
Expected tax rate	23.6%	25.7%
Expected tax expense	-91.1	-304.1
Effects from intragroup dividends and other non-deductible expenses	-28.0	-11.4
Tax-free income and tax credits	32.3	58.6
Deductible temporary differences and tax losses not capitalized	-14.0	-7.0
Current taxes from previous years	-0.5	-7.8
Effects from the use of previously not recognized losses and temporary differences	7.1	6.2
Withholding and other income taxes with different tax base	-2.2	-2.6
Other	0.6	-0.6
Income taxes	-95.9	-268.6
Effective tax rate	24.8%	22.7%

The decrease in the effective tax rate in the prior year is particularly due to the effect from the remeasurement of the contingent consideration in connection with the acquisition of BIA Separations (see

Notes 12 and 35). The corresponding income is not taxable and, therefore, results in a decrease in the tax rate in relation to the profit before tax reported in these consolidated financial statements. In 2023, this effect is overcompensated by opposing items, such as non-tax-deductible expenses in connection with subsidiaries and associated companies.

14. Earnings per Share

IAS 33, Earnings per Share, requires earnings per share to be calculated separately for each class of share. The undiluted earnings per share (basic EPS) are calculated based on the number of shares outstanding during the period. Treasury shares are not included in the calculation of the average number of shares outstanding.

	2023	2022
Ordinary shares		
Basis for calculating basic earnings per ordinary share (net profit after non-controlling interest), in millions of €	102.5	339.0
Weighted average number of shares outstanding	34,226,009	34,226,009
Basic earnings per ordinary share, in €	2.99	9.91
Weighted average number of shares outstanding for calculating the diluted earnings per share	34,226,009	34,226,009
Diluted earnings per ordinary share, in €	2.99	9.91
Preference shares		
Basis for calculating basic earnings per preference share (net profit after non-controlling interest), in millions of €	102.7	339.0
Weighted average number of shares outstanding	34,189,853	34,189,853
Basic earnings per preference share, in €	3.00	9.92
Weighted average number of shares outstanding for calculating the diluted earnings per share	34,189,853	34,189,853
Diluted earnings per preference share, in €	3.00	9.92

Notes to the Statement of Financial Position

15. Goodwill and Intangible Assets

Goodwill

In millions of €	Goodwill
Gross book values at Jan. 1, 2022	1,362.0
Currency translation	20.7
Acquisitions through business combinations	336.2
Gross book values at Dec. 31, 2022	1,718.9
Impairment losses at Jan. 1, 2022	0.0
Currency translation	0.0
Impairment losses 2022	0.0
Impairment losses at Dec. 31, 2022	0.0
Net book values at Dec. 31, 2022	1,718.9
Gross book values at Jan. 1, 2023	1,718.9
Currency translation	−15.4
Acquisitions through business combinations	1,713.8
Gross book values at Dec. 31, 2023	3,417.3
Impairment losses at Jan. 1, 2023	0.0
Currency translation	0.0
Impairment losses 2023	0.0
Impairment losses at Dec. 31, 2023	0.0
Net book values at Dec. 31, 2023	3,417.3

The additions in fiscal 2023 were attributable to the acquisitions of the Polyplus Group and of Sartonet (see Note 8). The additions in the prior period were attributable to the acquisitions of ALS Automated Lab Solutions GmbH, the Chromatography business of Novasep, and Albumedix Ltd.

Owing to the integration of our businesses in the Bioprocess Solutions and Lab Products & Services divisions and our respective positioning as a total solutions provider, goodwill is monitored at the level of these cash-generating units and tested annually for impairment according to IAS 36 (impairment test).

Thus, goodwill is allocated to the segments as follows:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Bioprocess Solutions	3,048.4	1,339.2
Lab Products & Services	368.9	379.7
	3,417.3	1,718.9

In 2023, the Group's financial targets were not achieved and consequently the outlook for 2025 was suspended in the fourth quarter. As in previous years, the annual impairment tests were conducted on 30 November. The calculations measure the recoverable amount on the basis of the value in use of the particular cash-generating unit. The cash flow forecasts consider previous experience and are generally based on the current projections of Group management for a period of four years. The average annual revenue growth rates for the detailed planning period derived from the Group's updated medium-term planning are in the upper single-digit to double-digit (BPS) and mid to high single-digit percentage range (LPS) with moderate increases in the EBITDA margin. For the Bioprocess Solutions Division, calculations were based on an average terminal growth rate of 2.5% for the fiscal years after 2027. This terminal growth rate is derived from long-term inflation and market expectations, which forecast medium-term growth rates in the high upper single-digit to double-digit range for the biopharmaceutical market targeted by the division. The major growth drivers will include the aging population, the increase in population, and improved access to pharmaceuticals in emerging-market countries, as well as the ongoing paradigm shift toward the utilization of single-use products in the manufacture of biopharmaceuticals. The increasing relevance of new modalities, such as in the area of cell and gene therapies, is considered an additional growth driver for the product portfolio of the bioprocess division. For the Lab Products & Services Division, a terminal growth rate of 1.5% was used for fiscal years after 2027.

The discount rates of the cash-generating units correspond to their weighted average cost of capital (WACC) and were determined as follows:

	2023 Before tax	2023 After tax	2022 Before tax	2022 After tax
Bioprocess Solutions	10.7%	8.5%	10.6%	8.4%
Lab Products & Services	10.7%	8.2%	10.9%	8.3%

In fiscal 2023, these impairment tests did not result in the recognition of impairment losses. Even realistic changes in the basic assumptions on which measurement of value in use is based would not result in the carrying amount of the cash-generating units exceeding their value in use.

Other Intangible Assets

In millions of €	Patents, licenses, technologies and similar rights	Brand names	Customer relationships	Capitalized development costs	Payments on account	Total
Gross book values at Jan. 1, 2022	938.0	57.7	384.6	288.4	0.4	1,669.1
Currency translation	17.1	1.7	1.8	−0.8	0.0	19.9
Acquisitions through business combinations	181.5	5.8	46.6	2.7	0.0	236.5
Capital expenditures	3.1	0.0	0.3	81.7	0.3	85.4
Disposals	−12.8	−0.6	−6.5	−2.3	−0.1	−22.3
Transfers	0.2	0.0	0.0	0.0	−0.2	0.0
Gross book values at Dec. 31, 2022	1,127.1	64.7	426.7	369.6	0.5	1,988.7
Amortization and impairment losses at Jan. 1, 2022	−244.4	−14.4	−188.3	−126.4	0.0	−573.5
Currency translation	−3.8	−0.4	0.0	0.3	0.0	−3.9
Amortization and impairment losses in 2022	−81.8	−3.2	−31.8	−33.8	0.0	−150.6
Disposals	12.8	0.6	6.5	2.5	0.0	22.4
Transfers	0.0	0.0	0.0	0.0	0.0	0.0
Amortization and impairment losses at Dec. 31, 2022	−317.2	−17.5	−213.5	−157.4	0.0	−705.6
Net book values at Dec. 31, 2022	809.9	47.2	213.2	212.2	0.5	1,283.1

In millions of €	Patents, licenses, technologies and similar rights	Brand names	Customer relationships	Capitalized development costs	Payments on account	Total
Gross book values at Jan. 1, 2023	1,127.1	64.7	426.7	369.6	0.5	1,988.7
Currency translation	−10.1	−1.3	−6.2	−1.1	0.0	−18.7
Acquisitions through business combinations	791.9	36.3	58.5	13.0	0.0	899.7
Capital expenditures	6.0	0.0	0.0	100.3	0.4	106.7
Disposals	−0.8	0.0	0.0	−0.2	−0.1	−1.2
Transfers	0.1	0.0	0.0	0.0	0.0	0.1
Gross book values at Dec. 31, 2023	1,914.2	99.7	479.1	481.6	0.8	2,975.3
Amortization and impairment losses at Jan. 1, 2023	−317.2	−17.5	−213.5	−157.4	0.0	−705.6
Currency translation	4.2	0.4	2.9	0.1	0.0	7.7
Amortization and impairment losses in 2023	−112.5	−4.1	−31.1	−32.6	0.0	−180.3
Disposals	0.8	0.0	0.0	0.0	0.0	0.8
Transfers	0.0	0.0	0.0	0.0	0.0	0.0
Amortization and impairment losses at Dec. 31, 2023	−424.6	−21.1	−241.7	−190.0	0.0	−877.4
Net book values at Dec. 31, 2023	1,489.6	78.6	237.3	291.6	0.8	2,097.9

Intangible assets acquired are reported at cost less accumulated, regular amortization calculated according to the straight-line method. The useful life of an intangible asset is the period over which this asset is expected to contribute directly or indirectly to the cash flows of the entity.

Costs incurred within the scope of the development of new products and methods are capitalized as internally generated intangible assets only if the criteria according to IAS 38.57 are met. The capitalization of internally-generated intangible assets includes a certain level of estimates and assumptions, e.g., the assessment of the technical feasibility of a development project, its expected market prospects, and the determination of useful lives.

The capitalized development costs essentially cover the costs attributable to the staff involved in R&D, raw materials and supplies, external services, and directly attributable overheads. Internally-generated intangible assets are amortized over their useful lives on a straight-line basis.

If an internally-generated intangible asset cannot be capitalized, the development costs are recognized as expenses in the period in which they are incurred. Costs for research activities are reported as expenses in the period in which they are incurred.

Amortization of intangible assets is based on the following periods of useful life:

Software	2 to 10 years
Technologies	3 to 20 years
Capitalized development expenses	4 to 6 years
Customer relationship	1 to 20 years
Brand name	2 years to an indefinite period

The brand name acquired in the Stedim transaction (carrying amount: €10.8 million) is considered to have an indefinite useful life as there is no foreseeable limit to the period over which it is expected to generate net cash inflows for the company. However, because of the integration of the "Stedim" brand into the name of the "Sartorius Stedim Biotech" sub-group and the name of that sub-group's parent entity, the relevant cash flows cannot be measured separately. The recoverability of the brand name was considered at the next higher level of the cash-generating unit (CGU), i.e., the Bioprocess Solutions Division.

The useful lives of the remaining brand names acquired through business combinations are estimated at up to 20 years.

Amortization of intangible assets is allocated to the corresponding functions in the statement of profit or loss. For capitalized development costs, amortization is reported in the cost of sales.

In fiscal 2023, impairment losses of €4.5 million were recognized on intangible assets. This includes an amount of €2.6 million in relation to capitalized development expenses in the Bioprocess Solutions Division (prior year: €9.9 million, thereof LPS: €6.0 million, BPS: €3.9 million).

16. Property, Plant and Equipment

In millions of €	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Payments on account and construction in progress	Total
Gross book values at Jan. 1, 2022	722.0	367.9	248.1	319.8	1,657.7
Currency translation	2.4	1.0	-0.7	3.0	5.7
Acquisitions through business combinations	10.7	17.4	1.0	3.7	32.8
Capital expenditures	45.5	45.6	47.7	312.1	450.9
Disposals	-1.6	-10.1	-33.1	-0.1	-44.9
Transfers	56.9	46.2	14.4	-115.5	2.0
Gross book values at Dec. 31, 2022	835.9	468.0	277.5	522.9	2,104.2
Depreciation and impairment losses at Jan. 1, 2022	-139.1	-175.1	-146.4	0.0	-460.6
Currency translation	0.2	-0.1	0.5	0.0	0.5
Amortization and impairment losses in 2022	-33.7	-41.5	-29.5	0.0	-104.8
Disposals	1.1	9.2	31.8	0.0	42.1
Transfers	-1.7	0.9	-0.8	0.0	-1.7
Depreciation and impairment losses at Dec. 31, 2022	-173.3	-206.6	-144.4	0.0	-524.4
Net book values at Dec. 31, 2022	662.5	261.4	133.0	522.9	1,579.7
Net book values of right-of-use assets at Dec. 31, 2022	121.9	1.9	11.2	0.0	134.9
Total book values property, plant & equipment at Dec. 31, 2022	784.4	263.3	144.2	522.9	1,714.8

In millions of €	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Payments on account and construction in progress	Total
Gross book values at Jan. 1, 2023	835.9	468.0	277.5	522.9	2,104.2
Currency translation	–8.6	–5.9	–3.6	–6.5	–24.6
Acquisitions through business combinations	9.1	6.2	1.3	9.6	26.2
Capital expenditures	38.7	34.9	51.8	356.9	482.4
Disposals	–0.6	–6.1	–5.9	–0.2	–12.8
Transfers	170.2	45.1	8.9	–224.2	–0.1
Gross book values at Dec. 31, 2023	1,044.6	542.1	330.0	658.6	2,575.3
Depreciation and impairment losses at Jan. 1, 2023	–173.3	–206.6	–144.4	0.0	–524.4
Currency translation	1.7	2.2	2.0	0.0	5.9
Amortization and impairment losses in 2023	–38.8	–51.0	–34.5	–0.1	–124.4
Disposals	0.3	4.5	5.4	0.0	10.2
Transfers	0.0	0.0	0.0	0.0	0.0
Depreciation and impairment losses at Dec. 31, 2023	–210.1	–250.9	–171.5	–0.1	–632.6
Net book values at Dec. 31, 2023	834.5	291.2	158.5	658.5	1,942.7
Net book values of right-of-use assets at Dec. 31, 2023	120.1	2.4	15.7	0.0	138.2
Total book values property, plant & equipment at Dec. 31, 2023	954.6	293.6	174.2	658.5	2,080.9

The item “Property, plant and equipment” is reported at cost and, if subject to depreciation, reduced by regular depreciation. Impairment tests are conducted when impairment indicators are identified. The straight-line method is applied to depreciation reported in the consolidated financial statements.

Depreciation of property, plant, and equipment is based on the economic useful life. The following assumptions for the useful life are typically applied:

Buildings	15 to 50 years
Machinery	5 to 15 years
Factory and office equipment	3 to 13 years

Depreciation is presented in the statement of profit or loss according to how the assets are used: in the cost of sales, selling and distribution expenses, research and development expenses, administrative expenses, or other operating expenses.

Borrowing costs are expensed as incurred unless they are directly attributable to the acquisition, construction, or production of a qualifying asset and are therefore part of the cost of that asset.

Grants related to assets are generally deducted from the cost of assets.

17. Leases

Lease accounting follows IFRS 16, Leases. For the financing structure of the Sartorius Group, leases are not of high relevance. In fiscal 2023 and in the past, the Group invested heavily in its sites. The main considerations for leases are therefore generally of a practical nature, for example, with regard to the company’s management of IT hardware or fleet management. Accordingly, leases of IT hardware and cars represent the major number of the Group's lease contracts. The lease term of such leases is generally fixed, typically extending to between three and five years.

Furthermore, at some sites, the Group has leases of buildings, which are negotiated and managed locally. These contracts may contain extension options, which are included in the lease term according to IFRS 16 when the Group is reasonably certain that the option will be exercised. The Group does not act as a lessor to a material extent.

According to IFRS 16, a lessee generally recognizes a right-of-use asset as well as a lease liability, which represents its obligation to make lease payments. The Group makes use of the exemptions for short-term leases and leases of low-value assets and recognizes the corresponding lease payments as an expense generally on a straight-line basis over the particular lease term. Accordingly, no right-of-use assets and no lease liabilities are recognized for these leases. Furthermore, taking IFRS 16 under consideration, no right-of-use assets and no liabilities are recognized for leases between Group entities. The Group does not apply this Standard to leases of intangible assets.

In the statement of financial position, the Group presents right-of-use assets according to the nature of the underlying lease assets under "Property, plant and equipment." Right-of-use assets are recognized at cost less accumulated depreciation and any impairment losses. The cost of the right-of-use assets comprises the present value of the future lease payments, any payments paid upon or before commencement of the lease, any initial direct costs, and costs for dismantling or removing the lease asset. The right-of-use assets are typically depreciated over the lease term. If the transfer of legal ownership of a lease asset is planned at the end of the lease term, the right-of-use asset is depreciated over the economic useful life of the lease asset. In the statement of profit or loss, depreciation is recognized within functional costs.

The lease liabilities are disclosed separately on the face of the statement of financial position. Lease liabilities are initially recognized at an amount equal to the present value of the future lease payments. The lease payments generally do not include any payments in relation to non-lease components. In general, the specific applicable incremental borrowing rate of the Group is used for discounting. Subsequently, the carrying amount of the lease liabilities is increased by interest expenses and reduced by lease payments. Interest expenses are reported in the financial result and, to the extent they are paid, in the financing section of the cash flow statement together with "Interest paid."

As of December 31, 2023, lease liabilities stood at €147 million (2022: €144 million). The maturities of the future lease payments are presented in Note 39. The undiscounted cash outflows for leases to which the Group is committed but that have not yet commenced as of the reporting date amount to €30.0 million (prior year: immaterial). The composition of the right-of-use assets included in "Property, plant and equipment" as of December 31, 2023, as well as of the preceding reporting date and the main changes, are presented in the table below.

In millions of €	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Total
Gross book values at Jan. 1, 2022	141.9	4.4	26.8	173.1
Currency translation	0.1	0.0	0.0	0.1
Acquisitions through business combinations	3.6	0.0	0.0	3.6
Additions	50.4	0.8	7.6	58.8
Disposals	–4.3	0.0	–1.6	–5.9
Transfers	–2.4	0.4	0.0	–2.0
Gross book values at Dec. 31, 2022	189.4	5.5	32.8	227.8
Depreciation and impairment losses at Jan. 1, 2022	–46.6	–2.5	–15.3	–64.4
Currency translation	0.1	0.0	0.1	0.1
Amortization and impairment losses in 2022	–23.7	–1.0	–6.9	–31.7
Disposals	1.0	0.0	0.5	1.5
Transfers	1.7	–0.1	0.0	1.6
Depreciation and impairment losses at Dec. 31, 2022	–67.6	–3.6	–21.6	–92.8
Net book values at Dec. 31, 2022	121.9	1.9	11.2	134.7

In millions of €	Land, buildings and improvements	Technical machinery and equipment	Factory and office equipment and other equipment	Total
Gross book values at Jan. 1, 2023	189.4	5.5	32.8	227.8
Currency translation	–4.0	0.0	–0.1	–4.1
Acquisitions through business combinations	8.1	0.7	0.6	9.4
Additions	24.7	0.7	13.2	38.6
Disposals	–8.5	–0.7	–2.3	–11.6
Transfers	0.0	0.0	–0.1	–0.1
Gross book values at Dec. 31, 2023	209.8	6.1	44.0	260.0
Depreciation and impairment losses at Jan. 1, 2023	–67.6	–3.6	–21.6	–92.8
Currency translation	1.8	0.0	0.1	1.9
Amortization and impairment losses in 2023	–28.9	–0.9	–7.8	–37.6
Disposals	4.9	0.8	0.9	6.6
Transfers	0.0	0.0	0.1	0.1
Depreciation and impairment losses at Dec. 31, 2023	–89.7	–3.7	–28.4	–121.8
Net book values at Dec. 31, 2023	120.1	2.4	15.7	138.2

The table below shows the interest expenses presented in the financial result, the total cash outflows for existing leases, and expenses recognized for short-term leases and leases of low-value assets during the reporting period. No material expenses were recognized for variable lease payments in the reporting period.

In millions of €	2023	2022
Interest expenses for leases	5.3	3.8
Expenses for short-term leases	4.0	4.0
Expenses for leases of low-value assets	5.9	7.8
Repayment of lease liabilities	37.0	29.9
Total cash outflows for leases	52.2	45.5

18. Deferred Taxes

	Deferred tax assets		Deferred tax liabilities		Changes recognized in profit or loss
In millions of €	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2023	Dec. 31, 2022	
Other intangible assets	6.6	4.5	429.3	221.8	14.0
Tangible assets	2.0	0.0	38.6	24.0	–10.1
Inventories	49.7	52.6	1.1	0.0	–3.3
Receivables and other current assets	3.3	2.3	2.4	1.7	–0.6
Provisions	15.8	13.6	0.4	0.0	2.3
Liabilities	21.1	23.3	2.8	0.0	–3.3
Taxable losses carried forward	8.6	5.3	0.0	0.0	1.6
Interest carry-forwards	2.8	0.0	0.0	0.0	2.9
Tax on investments in subsidiaries	0.0	0.0	4.0	5.7	1.7
Total	109.9	101.5	478.7	253.1	5.1
Offset	–26.0	–18.0	–26.0	–18.0	
Total (net)	83.9	83.6	452.7	235.2	

Deferred tax assets and liabilities are determined based on temporary differences between the carrying amounts and the tax bases of assets and liabilities, including differences from consolidation. In addition, loss and interest carry-forwards and tax credits are considered. Measurement is based on the tax rates expected to be effective in the period in which the asset is realized, the liability is settled, or the loss or interest carry-forwards are used. Changes in deferred tax assets and liabilities are reflected in income taxes in the statement of profit or loss. The exceptions are changes that are to be recognized in other comprehensive income directly in equity, as well as effects from acquisitions.

In principle, tax rates and tax rules are used that have been enacted or substantively enacted at the reporting date. Deferred tax assets are recognized to the extent that it is probable that taxable profit at the level of the relevant tax authority will be available for the utilization of the deductible temporary differences or losses carried forward.

The Group operates in various tax jurisdictions and therefore has to determine tax positions under respective local tax laws and tax authorities' views, which can be complex and subject to different interpretations by taxpayers and local tax authorities. The amount of uncertain tax positions is determined on the basis of the best estimate of expected tax payments.

In 2021, more than 130 countries agreed on the introduction of a minimum taxation (so-called Pillar Two) for multinational groups with global sales revenues exceeding €750 million. See Note 2 for the impact on the Group.

Deferred tax assets have to be recognized for all deductible temporary differences and unused tax losses to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences and unused tax losses can be utilized. As future developments are uncertain and partly beyond management's control, assumptions are necessary to estimate future taxable profits as well as the period in which deferred tax assets will be recovered.

Estimates are revised in the period in which there is sufficient evidence to revise the assumption. If management considers it probable that all or a portion of a deferred tax asset cannot be realized, a corresponding valuation allowance is taken into account.

Deferred Tax Assets

For losses of €146 million to be carried forward (prior year: €141 million), no deferred tax amounts were recognized because of the lack of foreseeability of future taxable profits. Of these unused tax losses, €3.5 million can still be carried forward for a limited time (prior year: €6.0 million), of which €3.0 million will expire in the next five years (prior year: €4.1 million). In addition, the Group had unused interest carry-forwards in the amount of €11.9 million (prior year: €3.0 million) for which deferred tax assets amounting to €2.8 million were recognized (prior year: €0.0 million). Furthermore, no deferred tax assets were recognized for deductible temporary differences amounting to €11 million (prior year: €20 million).

Deferred tax assets of about €5 million (prior year: about €3 million) relate to companies that reported losses in the year under review or in the prior reporting period. These losses carried forward were reported as assets to the extent that it is assumed that taxable profits will be available in the future, against which the unused tax losses and the deductible temporary differences can be offset. This is assumed especially in cases where the losses resulted from one-time or special items.

Deferred Tax Liabilities

The deferred tax liabilities in connection with intangible assets essentially relate to assets acquired in business combinations and, consequently, are mainly linked to customer relationships and technologies.

For temporary differences in connection with shares in subsidiaries, which amounted to €86 million (prior year: €87 million), deferred tax liabilities were not recognized on these differences, as the Group controls the development of the temporary differences and the realization of such liabilities is not expected within the foreseeable future.

19. Inventories

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Raw materials and supplies	373.9	454.8
Work in progress	244.0	239.9
Finished goods and merchandise	409.2	466.1
Payments on account	9.7	18.3
	1,036.7	1,179.1

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Gross amount of inventories	1,169.4	1,278.8
Write-downs	–132.7	–99.7
Net amount of inventories	1,036.7	1,179.1

Raw materials and supplies, including merchandise, are reported under "Inventories" at average cost. In principle, finished goods and work in progress are reported at cost of conversion. This cost includes direct costs attributable to these materials and the appropriate portion of production and material handling overheads, general administrative expenses, and depreciation and/or amortization of non-current assets, provided that these expenses are caused by production.

Inventories must be measured at the lower of cost and net realizable value. The net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary for marketing, sales, and distribution. Where inventory risks exist, such as the risk of reduced shelf life as a result of storage periods or limited usability, inventories are marked down accordingly.

20. Issued Capital

The issued capital of Sartorius AG is divided into 37,440,000 bearer ordinary shares and 37,440,000 non-voting preference shares, each with a calculated par value of €1.00. Preference share owners receive an increased dividend (surplus dividend) of €0.01 per preference share from the distributable profit; however, the dividend must amount to at least €0.02 per preference share. All shares are fully paid up.

Sartorius AG exercised the authority granted at the Annual Shareholders' Meeting on June 21, 2000, to repurchase treasury shares in the amount of €16,082 K pursuant to Section 71 (1), no. 8 of the German Stock Corporation Act (AktG). As required by IAS 32, treasury shares were deducted from equity and capital reserves. These shares are held in particular as currency for future acquisitions of companies. From October 27, 2000, to the reporting date, a total of 831,944 ordinary shares were repurchased at an average price of €11.27 and a total of 840,983 preference shares at an average price of €7.98. Following the stock split carried out in 2016, 3,213,991 ordinary shares and 3,250,147 preference shares remain as treasury stock, representing a proportion of €6,464 K (8.6 %) of the share capital. As in the prior year, no treasury shares were purchased in fiscal 2023.

In December 2015, 25,000 ordinary shares and 25,000 preference shares were issued to the CEO and Executive Board Charmain Dr. Joachim Kreuzburg in accordance with his 2014 remuneration agreement. In November 2020, 13,785 ordinary shares and 13,785 preference shares were issued to the CEO and Executive Board Chairman Dr. Joachim Kreuzburg in accordance with his 2019 remuneration agreement. In December 2023, Dr. Alexandra Gatzemeyer and Dr. René Fáber were granted additional remuneration in shares that were transferred on January 1, 2024. Dr. Gatzemeyer was granted 1,496 ordinary shares and 1,186 preference shares. Dr. Fáber was granted 1,923 ordinary shares and 1,525 preference shares.

21. Reserves

Capital Reserves

Capital reserves include the amounts generated above the nominal amount in previous years, when Sartorius AG issued shares. As part of the stock split, an amount of €51.3 million was reclassified from capital reserves to issued capital.

In fiscal 2023, capital reserves rose by €0.6 million (prior year: €1.3 million) due to the employee benefits expense to be offset in connection with the share-based remuneration agreements with members of the Executive Board.

Cash Flow Hedging Reserves

Amounts recognized in other comprehensive income as part of an effective hedging relationship are transferred to the cash flow hedging reserves. In particular, these are fluctuations in the fair value of currency and interest hedges as well as their respective tax effects. The cumulative amount transferred to other comprehensive income as of the reporting date stands at €–3.2 million (prior year: €–15.2 million).

Pension Reserves

Actuarial gains and losses from defined benefit plan commitments, including their respective tax effects, are included in pension reserves. For further details, see Note 23.

22. Non-Controlling Interest

The Sartorius Stedim Biotech sub-group headquartered in Aubagne, France, accounts for the majority of non-controlling interest in the Sartorius Group. The latter holds approximately 74% of the capital and 85% of the voting rights in this sub-group. The following subsidiaries account for further non-controlling interest amounts:

- ALS Automated Lab Solutions GmbH, Jena, Germany (share capital of the Group: 62.5%)
- Sartorius CellGenix GmbH, Freiburg i. B., Germany (76%)
- Sartorius Korea Biotech, Seoul, South Korea (79%)
- Sartorius Thailand, Bangkok, Thailand (33%)

In 2023, the Group purchased 25% of the shares in the entity Sartorius CellGenix GmbH for a purchase price of approximately €66.7 million in cash. The corresponding cash flow is presented within cash flow from financing activities. The financial liability that had been recognized for the corresponding put option of the non-controlling interest amounting to €66.1 million (as of December 31, 2022) was reclassified to retained earnings. The impact on the non-controlling interest and the equity attributable to the owners of the parent company is presented in the statement of changes in equity.

In fiscal 2023, the Group also acquired an additional 10% of the share capital in Sartorius Korea Biotech LLC for a purchase price of approximately €20.8 million. The cash flow is presented within cash flow from financing activities. The Group now owns 79% of the share capital and voting rights of the entity.

Sartorius Thailand is consolidated due to contractual arrangements over the exercise of voting rights that ensure control.

In millions of €	2023	2022
Cumulative non-controlling interest as of Dec. 31		
Sartorius Stedim Biotech	647.1	597.2
Sartorius CellGenix GmbH	26.0	52.0
Other	16.9	19.9
	690.1	669.1
Profit or loss allocated to non-controlling interest		
Sartorius Stedim Biotech	81.8	231.3
Sartorius CellGenix GmbH	0.6	1.3
Other	2.6	2.3
	84.9	235.0
Dividends paid to non-controlling interest		
Sartorius Stedim Biotech	35.0	30.6
Sartorius CellGenix GmbH	0.0	0.0
Other	1.2	1.6
	36.2	32.3

The following condensed financial information refers to the Sartorius Stedim Biotech Group:

Condensed Statement of Financial Position

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Non-current assets	6,324.8	3,394.2
Current assets	1,415.1	1,671.2
	7,739.9	5,065.4
Equity	2,673.2	2,514.2
Non-current liabilities	4,129.4	1,515.3
Current liabilities	937.3	1,035.9
	7,739.9	5,065.4

Condensed Statement of Profit or Loss and Other Comprehensive Income

In millions of €	2023	2022
Sales revenue	2,775.5	3,492.7
Profit before tax	401.1	1,130.4
Income taxes	–89.0	–250.5
Net profit for the period	312.1	879.9
Other comprehensive income after tax	–23.1	–6.2
Total comprehensive income	289.1	873.7

Condensed Statement of Cash Flows

In millions of €	2023	2022
Cash flow from operating activities	746.4	612.3
Cash flow from investing activities	–2,722.7	–957.5
Cash flow from financing activities	1,986.1	220.7
Change in cash and cash equivalents	9.8	–124.5
Cash and cash equivalents at the beginning of the period	107.1	223.6
Net effect of currency translation on cash and cash equivalents	–0.3	8.0
Cash and cash equivalents at the end of the period	116.6	107.1

The following condensed financial information refer to Sartorius CellGenix GmbH:

Condensed Statement of Financial Position

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Non-current assets	94.7	98.4
Current assets	49.7	47.3
	144.4	145.7
Equity	108.5	106.2
Non-current liabilities	26.2	31.1
Current liabilities	9.7	8.5
	144.4	145.7

Condensed Statement of Profit or Loss and Other Comprehensive Income

In millions of €	2023	2022
Sales revenue	32.6	32.0
Net profit for the period	2.3	2.8

23. Pension and Employee Benefits Provisions

Defined Contribution Plans

Most companies in the Group have defined contribution plans, frequently in the form of government-backed retirement insurances. In fiscal 2023, an amount of €64.5 million was recognized for defined contribution plans (prior year: €60.6 million).

Defined Benefit Plans

Pension provisions and similar obligations are recognized in accordance with IAS 19, Employee Benefits, applying the projected unit credit method. Under this method, obligations for pensions and other post-employment benefits are determined in accordance with actuarial valuations. In addition to known pensions and entitlements, these valuations rely on certain assumptions including discount rates, future salary and pension increases, and mortality rates.

The assumed discount factors reflect the returns provided by prime corporate (industrial) bonds with fixed coupons, matching maturities, and denominated in the relevant currencies on the reporting date. If such corporate bonds are not available with matching long-term maturities or are insufficiently available, their matching interest rates are determined by extrapolation.

Due to changing market and economic conditions, the underlying key assumptions may differ from actual developments and may lead to significant changes in pension and other post-employment benefit obligations. All resulting differences are shown directly in other comprehensive income of the respective period according to IAS 19 and do therefore not affect profit or loss. The actuarial losses, which were transferred to the pension reserves, essentially resulted from a change in the discount rate and totaled €–21.0 million (prior year: €–21.2 million).

An amount of €43.5 million (prior year: €44.1 million) relates in particular to the net amount of pension provisions for retirement pension plans in Germany. These provisions are based on direct commitments to employees under defined benefit pension plans. Under these commitments, the employees earn benefits for each year of service rendered to the company. The pension benefits are generally not funded by assets. A substantial portion of these provisions relates to Sartorius AG. In this case, the obligations measured pertain, firstly, to the General Pension Plan ("Allgemeine Versorgungsordnung") for employees whose employment commenced prior to January 1, 1983. Secondly, individual commitments have been made to current and former Executive Board members and executives.

Measurement of the post-employment benefit obligations of the German Group companies is based on the following actuarial assumptions:

	2023	2022
Discount rate	3.10%	3.16%
Future salary increases	3.00%	3.00%
Future pension increases	2.10%	2.10%

Concerning the assumptions on mortality and invalidity, the actuarial tables (RT) 2018 G compiled by Klaus Heubeck were used.

The following parameters were used for the French companies:

	2023	2022
Discount rate	3.70%	3.60%
Future salary increases	2.25%	2.25%

The amounts reported in the statement of profit or loss and in the statement of comprehensive income consist of the following:

In millions of €	2023	2022
Service cost	1.4	2.6
Net interest cost	1.6	0.6
Components of defined benefit costs recognized in profit or loss	3.0	3.2
Return on plan assets (excl. interest)	–0.1	–0.2
Actuarial gains | losses	–0.1	–19.4
Components of defined benefit costs recognized in other comprehensive income	–0.2	–19.6
Total defined benefit costs	2.9	–16.4

In the statement of profit or loss, the current service cost is disclosed according to the assignment of employees to the respective functions.

The net amount or present value included in the consolidated statement of financial position arising from the Group's obligation in respect of defined benefit plans is as follows:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Present value of obligations	80.5	79.3
Fair value of the plan assets	24.0	21.8
Net liability	56.5	57.5

Defined Benefit Obligation

In millions of €	2023	2022
Present value of obligations as of Jan. 1	79.3	97.4
Current service cost	2.2	3.5
Past service cost	−0.8	−0.9
Interest cost	2.3	0.9
Actuarial gains | losses	−0.2	−19.5
Currency translation differences	0.6	0.9
Retirement benefits paid in the reporting year	−4.7	−8.3
Employer contributions	0.5	0.6
Employee contributions	0.7	0.8
Change in the scope of consolidation	0.0	0.0
Contributions by the plan participants	0.3	3.1
Other changes	0.2	0.7
Present value of obligations as of Dec. 31	80.5	79.3

The actuarial gains and losses of the defined benefit obligation are allocated as follows:

In millions of €	2023	2022
Experience adjustments	−0.2	4.0
Changes in demographic assumptions	−0.9	−5.5
Changes in financial assumptions	0.9	−18.0
Total	−0.2	−19.5

Plan Assets

In millions of €	2023	2022
Plan assets at Jan. 1	21.8	22.0
Interest income	0.7	0.3
Return on plan assets (excl. interest)	0.1	0.2
Actuarial gains | losses	−0.2	−0.1
Group contribution & payments	−2.7	−6.9
Employee contributions	0.7	0.8
Currency translation differences	0.6	0.7
Employer contributions	2.6	3.3
Contributions by the plan participants	0.3	3.2
Other changes	0.2	−1.7
Plan assets as of Dec. 31	24.0	21.8

Composition of Plan Assets

Plan assets essentially consist of insurance contracts with insurance companies in Germany and Switzerland. An amount of €7.6 million (prior year: €6.3 million) is held by local banks as securities for subsidiaries in South Korea.

Risks

The defined benefit plans do not entail any significant entity-specific or plan-specific risks. Due to the rather low coverage of the defined benefit obligation by plan assets, liquidity risks arise in principle, which are immaterial for the Group due to their low monetary amount.

Sensitivity Analysis

An increase or a decrease in the actuarial assumptions would have the following impacts on the defined benefit obligations for the year ended December 31, 2023 (a plus sign before the number indicates an increase in the obligation):

Demographic assumptions

Change in life expectancy	−1 year	+1 year
Effect	−3.6	2.9

Financial assumptions

Change in discount rate	−100 bps	+100 bps
Effect	8.8	−7.1
Change in future salary increase	−50 bps	+50 bps
Effect	−2.3	2.6
Change in future pension increase	−25 bps	+25 bps
Effect	−2.4	2.5

Present value of the defined benefit obligations for the year ended December 31, 2022:

Demographic assumptions

Change in life expectancy	−1 year	+1 year
Effect	−2.9	3.0

Financial assumptions

Change in discount rate	−100 bps	+100 bps
Effect	9.1	−7.3
Change in future salary increase	−50 bps	+50 bps
Effect	−2.1	2.3
Change in future pension increase	−25 bps	+25 bps
Effect	−2.4	2.5

The sensitivity analysis presented above may not be representative of the actual change in the defined benefit obligation, as it is unlikely that changes in assumptions occur in isolation. Furthermore, the present value of the defined benefit obligation was calculated using the same method that was applied in calculating the defined benefit obligation liability recognized in the statement of financial position (projected unit credit method).

Maturity Analysis

The undiscounted cash flows from defined benefit obligations can be allocated to maturities as follows:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
< 1 year	4.9	4.8
1-5 years	20.8	18.4
6-10 years	30.3	28.9
> 10 years	141.6	145.3

The weighted average duration of the defined benefit obligations is 13.0 years (prior year: 13.8 years).

For fiscal 2024, payments of €6.3 million for defined benefit plan commitments are expected (prior year: €6.2 million). These cover contributions to plan assets and payment of retirement benefits.

24. Other Provisions

Provisions are recognized if a legal or constructive obligation or liability to third parties exists and if an outflow of resources is probable and the expected obligation can be reliably estimated. The amount recognized for a provision represents the best estimate of the obligation at the reporting date.

To determine the amount of the obligations, certain estimates and assumptions need to be applied, including an evaluation of the probability that such an obligation could occur, and the amount of costs incurred. Typically, significant uncertainties are involved in the determination of provisions related to onerous contracts, warranty costs, closure of business locations, asset retirement obligations, and legal proceedings.

Non-Current Provisions

In millions of €	Payments to employees on early retirement plan	Other	Total
Balance at Jan. 1, 2022	6.3	7.0	13.3
Change in the scope of consolidation	0.0	3.2	3.2
Currency translation	0.0	−0.2	−0.2
Consumption	−2.9	−0.4	−3.3
Reversals | Utilization	0.0	−1.2	−1.2
Additions	3.4	2.5	6.0
Balance at Dec. 31, 2022	6.8	13.4	20.2

In millions of €	Payments to employees on early retirement plan	Other	Total
Balance at Jan. 1, 2023	6.8	13.4	20.2
Currency translation	0.0	−0.1	−0.1
Consumption	−3.0	−0.4	−3.4
Reclassifications	0.0	−1.1	−1.1
Reversals | Utilization	0.0	−0.5	−0.5
Additions	3.9	2.7	6.6
Balance at Dec. 31, 2023	7.6	14.0	21.6

The non-current provisions comprise mainly provisions for partial retirement agreements, a type of early retirement plan, and employee bonuses for their company anniversaries. These obligations arise mainly at German Group companies. In addition, the long-term obligations in connection with the newly introduced so-called Long-Term Incentive Program ("LTI Program," see Note 42) are also reported under this position since fiscal 2022.

The early retirement plans are partial retirement plans that permit employees to work part-time for 3 to 5 years directly before they are due to retire at the legal retirement age and that are financially supported by the company. According to IAS 19, the expenses related to severance payments to be earned in future periods must be spread over the active employee's respective remaining period of service. Actuarial gains and losses, as well as past service costs, are to be recognized in profit or loss.

Bonuses for service anniversaries are generally granted to employees who have completed 20, 25, 30, and 40 years of service and cover additional special vacation as well as relatively small amounts of money.

Non-current provisions are reported at their present value on the reporting date. The discount rate is 3.8% (prior year: 2.9%) for employees on the early retirement plan and 3.7% (prior year: 3.2%) for provisions recognized for service anniversaries. In fiscal 2022 and 2023, the effect of compounding non-current provisions, including the effects of changes in the interest rate, were immaterial.

Current Provisions

In millions of €	Warranties	Other	Total
Balance at Jan. 1, 2022	34.7	23.7	58.4
Currency translation	0.6	−0.1	0.5
Change in the scope of consolidation	0.0	0.1	0.2
Consumption	−1.9	−1.6	−3.5
Reclassifications	2.1	−2.3	−0.2
Reversals	−11.0	−7.2	−18.2
Additions	23.9	5.3	29.2
Balance at Dec. 31, 2022	48.5	17.9	66.4

In millions of €	Warranties	Other	Total
Balance at Jan. 1, 2023	48.5	17.9	66.4
Currency translation	−0.7	−0.1	−0.8
Change in the scope of consolidation	0.0	0.1	0.1
Consumption	−1.9	−6.3	−8.1
Reclassifications	0.0	−0.2	−0.2
Reversals	−12.6	−8.6	−21.2
Additions	7.3	3.3	10.6
Balance at Dec. 31, 2023	40.7	6.2	46.9

Provisions for warranties cover expected replacement deliveries and repairs. Such provisions are recognized to cover individual risks, provided that their occurrence is more likely than not, as well as to cover general warranty risks based on past experience.

Other provisions include those for pending losses on onerous contracts and for uncertain obligations concerning employee benefits, as well as provisions for interest in connection with tax risks.

25. Other Liabilities

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Tax and social security	53.3	52.2
Other	96.5	97.3
Other liabilities	149.9	149.5

26. Employee Benefits

The liabilities for employee benefits reflect the following accruals for personnel expenses:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Variable benefits	46.5	67.9
Vacation and overtime	26.6	25.0
Other	19.3	21.5
Employee benefits	92.3	114.3

Financial Instruments | Financial Risks

Financial instruments are any contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Such financial instruments are recognized on the trade date. The following sections provide a comprehensive overview of the relevance of financial instruments to Sartorius and additional information on the items of the statement of financial position that include financial instruments.

Financial assets are primarily comprised of cash and cash equivalents, trade receivables, as well as derivatives with a positive fair value.

Financial liabilities of the Group mainly comprise bonds and loans from banks, trade payables, lease liabilities, and derivative financial instruments with a negative fair value. Furthermore, financial liabilities result from contingent consideration according to IFRS 3 and from written put options over non-controlling interests. Except for derivative financial instruments and contingent consideration, financial liabilities are measured at amortized cost using the effective interest method.

27. Financial Instruments: Material Accounting Policies

Financial instruments are accounted for according to IFRS 9, Financial Instruments. Under IFRS 9, the classification and measurement approach for financial assets reflects both the entity's business model (held-to-collect, held-to-collect-and-sell, other) within the scope of which assets are held and the contractual cash flow characteristics ("SPPI" criterion: solely payments of principal and interest). There were no reclassifications of financial instruments during the reporting period.

With regard to the impairment of financial assets, IFRS 9 sets out an expected-loss model. Financial assets are generally regarded as credit-impaired when there are objective indications that cast doubt on the probability of fully collecting the cash flows of the respective financial assets. At Sartorius Group, the simplified approach applied to trade receivables is of particular importance.

Aside from trade receivables, cash and cash equivalents are the most material financial assets on the Group's statement of financial position as of the reporting date, December 31, 2023. No impairment is recognized for these financial assets due to materiality considerations. As on the last reporting date, for the remaining financial assets that are measured at amortized cost, no impairment is recognized as of December 31, 2023, for the 12-month expected credit losses, given the Group's immaterial historical losses.

Derivatives such as forward contracts on foreign currencies are measured at fair value. In this context, the derivatives are recognized at fair value calculated applying recognized mathematical methods. The fair values are based on the market data available at the time the value of these derivatives is calculated. Instruments that are not designated as hedging instruments and to which no hedge accounting is applied are classified as held for trading. Changes in the fair values of derivative financial instruments are either recognized in profit or loss or, in the case of hedging relationships, in other comprehensive income.

The Group applies the hedge accounting rules of IFRS 9. The Group uses forward transactions to hedge cash flow risks that result from changes in foreign exchange rates in relation to sales of products and the production activities, and designates only the spot element of the hedging instrument.

Financial Assets

28. Cash and Cash Equivalents

The Group considers all highly liquid investments with up to three months' maturity from the date of acquisition to be cash or cash equivalents. These mainly comprise deposits in banks. Cash and cash equivalents are measured at cost. As of the reporting date on December 31, 2023, cash and cash equivalents stood at around €379.2 million (prior year: €165.9 million).

29. Current Trade and Other Receivables

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Trade receivables from third parties	333.3	470.3
Contract assets (IFRS 15)	16.7	13.8
Receivables from non-consolidated affiliates	0.5	0.4
Trade receivables	350.6	484.5

The carrying amounts of trade receivables approximate the receivables' fair value due to their short maturities. Contract assets result from customer-specific construction contracts that meet the criteria for recognition of revenue over time in accordance with IFRS 15 (see Note 9). The amount of trade receivables presented as of December 31, 2023, is reduced by €224.5 million as a result of factoring because substantially all risks and rewards in relation to the financial assets sold were transferred to the buyer (prior year: €240.0 million). In particular, credit risk and any foreign exchange rate risks were transferred completely.

Impairment losses on trade and other receivables are recognized using separate allowance accounts. For information on how these allowances were determined, see Note 40.

30. Other Financial Assets

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Derivative financial instruments	7.1	8.1
Loan receivables from affiliates	14.6	8.4
Miscellaneous other financial assets	15.0	30.9
Other financial assets	36.7	47.4

The carrying amount of derivatives represents the positive market values of currency hedges. The remaining other financial assets are measured at amortized cost, less any impairment losses, by application of the effective interest method.

Financial Liabilities

31. Loans and Borrowings and Lease Liabilities

In millions of €	Balance at Dec. 31, 2023	Of which non-current	Balance at Dec. 31, 2022	Of which non-current
Loans and borrowings	5,164.2	4,909.3	2,397.6	1,873.8
Lease liabilities	147.2	114.0	143.6	112.4
	5,311.4	5,023.3	2,541.2	1,986.2

In September 2023, the Group issued long-term, unsecured bonds with fixed coupons and with a total volume of €3 billion. The maturities are 3 (volume: €650 million; nominal interest rate: 4.250 %), 6 (€650 million; 4.375 %), 9 (€850 million; 4.500 %), and 12 years (€850 million; 4.875 %). In particular, the funds were used for the refinancing of the bridge financing taken out for the Polyplus acquisition and beyond for general corporate financing purposes. The interest rate level was partially hedged in advance, see Note 38.

An additional major pillar of financing for the Sartorius Group is the syndicated credit line of €800 million concluded in May 2022 with a maturity until 2028, which can be extended in spring 2024 for one year upon unanimous agreement of the parties. On the reporting date, this credit line is not utilized (prior year: €80 million). Further elements of the company's financing are various note loans ("Schuldscheindarlehen") placed in 2016, 2017, 2020, and 2022, respectively, with a total volume on the reporting date of approximately €1,505 million and original maturities of up to 13 years. Furthermore, the company has several current and non-current loans totaling around €635 million (prior year: €665 million).

These predominantly long-term financing instruments are supplemented by various short-term credit lines that are available until further notice totaling around €470 million (prior year: €475 million).

32. Other Non-Current Liabilities

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Liabilities for the acquisition of non-controlling interests	96.0	134.2
Contingent considerations	1.7	76.2
Other liabilities	15.9	5.9
Total	113.7	216.3

For the liabilities resulting from the contingent consideration agreements in connection with the acquisitions of BIA Separations and Xell as well as for the liabilities in connection with the potential acquisition of the remaining non-controlling interest in Sartorius CellGenix and ALS Automated Lab Solutions GmbH due to the put options of the owners, see Note 35.

33. Trade Payables

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Payments received on account of orders [1]	193.0	247.1
Trade payables to third parties	304.7	303.1
Payables to affiliated companies	1.8	1.8
Trade payables	499.5	551.9

1 Contract liabilities according to IFRS 15 (see Note 9).

34. Other Current Financial Liabilities

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Derivative financial instruments	2.2	11.3
Liabilities for the acquisition of non-controlling interests	0.0	66.1
Refund liabilities (IFRS 15)	26.1	29.5
Other	26.7	37.3
Other financial liabilities	55.0	144.2

In the prior year, the liabilities for the potential acquisition of non-controlling interests relate to Sartorius CellGenix GmbH (see Notes 22 and 35).

35. Carrying Amounts and Fair Values

The following table shows the carrying amounts and fair values of the Group's financial instruments according to IFRS 9 as of December 31, 2023, and as of December 31, 2022:

In millions of €	Category acc. to IFRS 9	Carrying amount Dec. 31, 2023	Fair value Dec. 31, 2023	Carrying amount Dec. 31, 2022	Fair value Dec. 31, 2022
Investments in non-consolidated subsidiaries	n/a	30.5	30.5	45.4	45.4
Financial investments	Equity instruments at fair value through profit or loss	8.1	8.1	4.4	4.4
Financial investments	Equity instruments at fair value through other comprehensive income	36.6	36.6	67.7	67.7
Financial investments	Debt instruments at fair value through profit or loss	27.5	27.5	26.4	26.4
Financial assets	Measured at amortized cost	12.0	12.0	7.0	7.0
Financial assets (non-current)		114.8	114.8	150.9	150.9
Contract assets (IFRS 15)	n/a	16.7	16.7	13.8	13.8
Trade receivables	Debt instruments at fair value through other comprehensive income	81.5	81.5	213.9	213.9
Trade receivables	Measured at amortized cost	252.3	252.3	256.7	256.7
Trade receivables		350.6	350.6	484.5	484.5
Receivables and other assets	Measured at amortized cost	29.6	29.6	39.3	39.3
Derivative financial instruments in hedge relationships [1]	n/a	7.1	7.1	8.1	8.1
Other financial assets (current)		36.7	36.7	47.4	47.4
Cash and cash equivalents	Measured at amortized cost	379.2	379.2	165.9	165.9
Loans and borrowings	Financial liabilities at cost	5,164.2	5,252.3	2,397.6	2,241.5
Trade payables	Financial liabilities at cost	306.5	306.5	304.9	304.9
Trade payables | payments received for orders (contract liabilities)	n/a	193.0	193.0	247.1	247.1
Trade payables		499.5	499.5	551.9	551.9
Derivative financial instruments in hedge relationships [1]	n/a	2.2	2.2	11.4	11.4
Other financial liabilities	Financial liabilities at fair value through profit or loss	1.7	1.7	76.2	76.2
Other financial liabilities	Financial liabilities at cost	164.7	157.9	273.0	258.6
Other financial liabilities		168.7	161.9	360.5	346.2

1 The amounts include the non-designated portion of the derivatives with a total amount of -€4.0 million (prior year: -€6.2 million).

The fair values of the financial instruments were determined on the basis of the market information available on the reporting date, and are to be allocated to one of the three levels of the fair value hierarchy in accordance with IFRS 13.

Level 1 financial instruments are measured on the basis of prices quoted on active markets for identical assets and liabilities. In Level 2, financial instruments are measured on the basis of input factors that can be derived from observable market data or on the basis of market prices for similar instruments. Level 3 financial instruments are measured on the basis of input factors that cannot be derived from observable market data.

The financial instruments recognized at fair value as at December 31, 2023, relate, among other things, to the contingent considerations in connection with the acquisitions of BIA Separations and Xell. Since the valuations depend, among other factors, on the predicted sales performance of the acquired businesses, the valuations are regarded as Level 3 inputs. The valuations are performed using updated valuation parameters on the reporting date.

In connection with the acquisition of BIA Separations, the parties agreed on three tranches of earn-out payments based on the sales performance of the acquired entity over the five fiscal years subsequent to the acquisition. Depending on this sales performance, the sellers are entitled to receive additional shares in Sartorius Stedim Biotech S.A. Besides the expected future sales performance and therefore the assumed number of shares to be transferred, the valuation of this contingent consideration considers also the expected future share price of Sartorius Stedim Biotech S.A. As of the reporting date on December 31, 2023, the fair value of the remaining contingent consideration liability was measured at €1.7 million. The change since December 31, 2022 (value: €72.1 million) mainly reflects adjusted sales and sales expectations, respectively. Furthermore, the share price of Sartorius Stedim Biotech S.A. and the discount rates applied to calculate the present value of the future obligation were adjusted to reflect the market rates on December 31, 2023. The difference between the valuation as of December 31, 2022, and the reporting date amounts to €70.4 million and was recognized in the financial result.

The key input parameters for the valuation are the sales revenue expectations for the plan years as well as the share price of Sartorius Stedim Biotech S.A. at the respective valuation date. The valuation results are less sensitive to realistic changes in other valuation parameters, e.g., the discount rates applied. Assuming 20 % higher (lower) sales revenues in each of the remaining relevant years of the plan period would result in an increase in the liability to be reported at the reporting date by approximately €1.7 million (decrease by approximately €1.1 million). If the share price had been 20 % higher (lower) at the reporting date, the liability would have been €0.3 million higher (€0.3 million lower). The actual future outcomes may differ from these sensitivities, which are determined by changing only the respective key input parameter in isolation. The lower end of the bandwidth of possible outcomes of the remaining variable third tranche of this contingent consideration is zero, while the upper limit cannot be quantified due to settlement in shares.

For the contingent consideration agreed in connection with the acquisition of WaterSep BioSeparations, which is due in 2024, no material financial liability was recognized on the reporting date of December 31, 2023. The value change since December 31, 2022 amounting to €3.0 million was recognized in the financial result.

In connection with the acquisition of Xell AG, the sellers were granted two additional earn-out components, which are due in 2024 and 2026 and depend on sales revenues in the years 2022 to 2025. On the reporting date of December 31, 2023, the fair value amounts to €0.1 million. The change since December 31, 2022 (value: €1.1 million) was recognized in the financial result. The lower (upper) end of the bandwidth of possible outcomes of the remaining second component of this contingent consideration remains zero (€18.3 million).

The remaining financial instruments recognized at fair value on the reporting date are mainly trade receivables of the entities participating in the factoring program that are therefore part of a portfolio that is “held-to-collect-and-sell,” as well as derivatives in the form of forward contracts. These trade receivables are valued in the same way as trade receivables measured at amortized cost due to their short contractual maturities and immaterial credit risks. The derivatives were measured on the basis of their quoted exchange rates and market yield curves (Level 2).

The investment in the Swedish BICO Group AB (shareholding of about 10 %) acquired in December 2022 is measured at fair value according to IFRS 9. Due to the stock exchange listing on Nasdaq Stockholm, the fair value is measured regularly on the basis of the current share price on the reporting date (Level 1). The value changes of this investment are recognized in other comprehensive income in accordance with the policy choice provided by IFRS 9 due to the volatility resulting from the stock exchange listing. On the reporting date, the fair value of the investment amounted to €36.6 million (prior year: €67.7 million). In fiscal 2023, the Group did not receive any dividends from BICO. The value change recognized in other comprehensive income in 2023 amounts to about -€31.1 million (prior year: €16.5 million).

The remaining “financial investments” measured at fair value are measured on the basis of the most recent reliable indicators available as of the reporting date, e.g., on the basis of the most recent financing round, the latest investor’s updates, or at historical cost of acquisition (Level 3).

For the bonds issued in 2023, the respective market prices on the reporting date are used as an indicator of fair value (Level 1). The fair values disclosed for the remaining financial liabilities recognized at amortized cost, especially liabilities to banks and those related to note loans (“Schuldscheindarlehen”), were measured on the basis of the yield curve, taking the current indicative credit spreads into account (Level 2).

The liabilities for the acquisitions of the remaining non-controlling interests in ALS Automated Lab Solutions GmbH and Sartorius CellGenix GmbH are reported under “Other financial liabilities” and are measured using the effective interest rate method, with any changes recognized directly in equity. Subsequent to the acquisition of additional 25 % of the shares in the latter entity in fiscal 2023 (see Note 22), the liability for the remaining shares, which depends on sales revenue in the years 2023 to 2025 and is due in 2026, amounts to €78.9 million on the reporting date. Assuming 10 % higher (lower) sales revenues in each of the remaining years of the plan period would result in an increase in the liability to be reported at the reporting date of approximately €4.2 million (decrease of approximately €3.8 million). The liability for the acquisition of the non-controlling interest in ALS Automated Lab Solutions GmbH, which depends on sales revenue in 2025 and is also due in 2026, amounts to €17.1 million on the reporting date. Assuming 10 % higher (lower) sales revenues in each of the remaining years of the plan period would result in an increase in the liability to be reported at the reporting date of approximately €1.5 million (decrease of approximately €1.3 million).

The fair values of the remaining financial assets and liabilities to be disclosed approximate the carrying amounts because of their predominantly short maturities. The maximum default risk is reflected by the carrying amounts of the financial assets recognized in the statement of financial position.

The Group recognizes transfers between the levels of the fair value hierarchies at the end of the reporting period during which the change has occurred. In the current reporting period, there were no transfers between the levels.

36. Net Result for Financial Instruments

The net gains and losses of the various categories of financial instruments are presented in the following table:

Category acc. to IFRS 9 in millions of €	2023	2022
Financial assets at amortized cost	1.3	19.3
Financial assets and liabilities at fair value through profit or loss	70.9	151.3
Debt instruments at fair value through other comprehensive income	−20.1	−2.4
Equity instruments at fair value through other comprehensive income	−31.1	16.5
Financial liabilities at cost	−23.3	−16.2

The net result of financial assets measured at amortized cost primarily consists of currency translation effects as well as changes in allowances.

The net result of financial assets and liabilities measured at fair value through profit or loss consists primarily of changes in the fair value of derivative financial instruments as well as of interest income and expenses for these instruments, and of changes in the value of contingent consideration in connection with business combinations (see Note 35).

The valuation gains and losses for the investment in BICO Group AB recognized in other comprehensive income is separately presented under equity instruments at fair value through other comprehensive income (see Note 35). The net result of the remaining financial instruments at fair value through other comprehensive income consists of income and expenses in connection with trade receivables that are not solely held to collect contractual cash flows, but may also be sold under the factoring program.

The net result of liabilities measured at amortized cost mainly consists of the effects of foreign currency translation.

The total interest income and expenses for financial assets and liabilities that are not recognized at fair value through profit and loss are as follows:

In millions of €	2023	2022
Interest income	5.6	2.5
Interest expenses	–125.8	–27.7

Capital and Financial Risk Management

Capital Management

In the Sartorius Group, capital is managed in order to maximize earnings of the company's stakeholders by optimizing the ratio of equity to liabilities.

Furthermore, we ensure that all Group companies operate under the premise of the going-concern principle. The financial liabilities described in Note 31 are regarded as managed capital, as are the cash and cash equivalents and equity capital.

Goals of Financial Risk Management

The Treasury Management unit of the Group coordinates access to national and international financial markets. In addition, the Treasury Management unit monitors and controls financial risks, which essentially entail currency, interest rate, liquidity, and credit risks.

The Sartorius Group strives to minimize the impact of currency and interest rate risks using (derivative) financial instruments. Hedging transactions and their control are carried out by different staff members. Derivative financial instruments are traded for hedging purposes only.

37. Management of Exchange Rate Risks and Hedge Accounting

Management of Exchange Rate Risks

The Group is exposed to currency risks, as approximately 60% of its sales revenue is generated in foreign currencies and, of this amount, approximately three-quarters is generated in U.S. dollars. At the same time, Sartorius' global manufacturing network enables the company to offset the lion's share of sales revenues received in foreign currency within the Group against costs likewise incurred in foreign currency. The remaining net currency exposures are hedged according to a cash flow at risk (CfaR) model within the limits of a risk budget with derivative financial instruments. The resulting hedge ratios reach up to 80% for the relevant currencies, respectively. The Group generally follows a rolling hedging strategy of up to 12 months in advance. These hedging measures are reviewed at regular intervals in the light of current market risk parameters and adapted where necessary.

On the basis of the material forward contracts concluded by the end of the reporting date, the Group secures the right, and simultaneously creates the obligation, to buy or sell an established foreign currency amount on the exercise date at a specific exchange rate against the euro, independently of the actual exchange rate on that date. The profit or loss resulting from the difference between the current and the previously agreed exchange rate is generally recognized as income or expense in the statement of profit or loss.

The following table shows the forward transactions as of the reporting date:

December 31, 2022	Currency	Volume in millions	Maturity	Fair value in millions of €
Forward contract	USD	549.1	2023	−3.3
	USD	549.1		−3.3
Forward contract	JPY	6,690.0	2023	0.7
	JPY	450.0	2024	−0.1
	JPY	7,140.0		0.6
Forward contract	CHF	8.0	2023	0.0
	CHF	8.0		0.0
Forward contract	GBP	5.0	2023	−0.1
	GBP	5.0		−0.1
Forward contract	SEK	87.0	2023	−0.5
	SEK	87.0		−0.5

December 31, 2023	Currency	Volume in millions	Maturity	Fair value in millions of €
Forward contract	USD	411.1	2024	2.9
	USD	411.1		2.9
Forward contract	JPY	5,490.0	2024	1.5
	JPY	5,490.0		1.5
Forward contract	CHF	1.1	2024	0.0
	CHF	1.1		0.0
Forward contract	GBP	65.6	2024	0.5
	GBP	65.6		0.5
Forward contract	SEK	168.0	2024	0.3
	SEK	168.0		0.3
Forward contract	SGD	65.6	2024	−0.2
	SGD	65.6		−0.2
Forward contract	AUD	8.5	2024	−0.1
	AUD	8.5		−0.1

Sartorius uses a cash flow at risk (CfaR) model to measure foreign currency risk. The basis for the analysis of foreign currency risks are the expected cash inflows and outflows in foreign currencies (so-called net exposures). The total foreign currency risk to which all absolute values of the net exposures are aggregated is as follows at the reporting date for the following 12 months:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Foreign currency exposure	1,143.2	1,100.4
Of which short positions	146.3	189.9

The risk position of the Group is reflected by the CfaR that remains after considering all hedging activities of the Group. The CfaR approach takes into account the impact of possible currency fluctuations on the cash flows in foreign currencies (against the euro) on the basis of probability distributions. In this context, the covariances of the foreign currencies weighted with the net exposures serve as input factors for the estimation of portfolio volatility, which is decisive for determining the CfaR. Correlations between the currencies are taken into account in this method as risk is reduced in the risk aggregation.

The possible negative impact on EBITDA is determined for each currency based on actual exchange rates and net exposures with a confidence level of 95% for the next 12 months. The following table presents the possible negative impact for the Group as determined by the CfaR approach for the following 12 months:

In millions of €	Dec. 31, 2023	Dec. 31, 2022
Cash flow at risk	30.6	32.7

Hedge Accounting

Derivative financial instruments are measured at the time of acquisition at cost and at fair value on subsequent reporting dates. The changes in value of the derivative financial instruments are generally recognized in the statement of profit or loss on the reporting date.

If the derivative financial instruments are used to hedge cash flow risks arising from exchange rate risks and a qualifying hedging relationship exists based on the criteria of IFRS 9, the valuation adjustments for the effective portion are recognized in other comprehensive income. Only the change in the spot element of the forward contracts used as cash flow hedges are regularly designated. Amounts accumulated in equity are reclassified to profit or loss in other income and other expenses (see Note 11) in the same periods in which the hedged items affect profit or loss. The changes in the cash flow hedging reserves are shown in the statement of changes in equity and in the statement of comprehensive income. The non-designated or ineffective part is recognized immediately in profit or loss in the financial result.

The critical terms match method is used to test the effectiveness of a hedging relationship; in other words, the economic relationship between the hedging instrument and the underlying hedged item is determined based on the consistency of the significant contractual features of the transactions. To this extent, the Group conducts a qualitative assessment. Hedge ineffectiveness may possibly arise if the timing of future transactions deviates from the original assumptions or the credit risk of the counterparties of the forward contract changes.

The following table shows the impact of foreign currency hedges on the net worth, financial position, and earnings of the Group:

Currency	Carrying amount (assets) Dec. 31, 2022 in millions of €	Carrying amount (liabilities) Dec. 31, 2022 in millions of €	Hedge ratio	Change in value of hedging instruments in millions of €	Change in value of hedged items in millions of €	Nominal amount in each foreign currency in millions	Maturity: 1 - 6 months	Maturity: 7 - 12 months	Maturity after one year	Average exercise price
USD	10.3	-7.4	100%	2.8	2.8	549.1	390.4	158.7	0.0	1.09
CHF	0.0	0.0	100%	0.0	0.0	8.0	8.0	0.0	0.0	0.99
JPY	1.2	-0.5	100%	0.7	0.7	7,140.0	5,490.0	1,200.0	450.0	138.90
GBP	0.0	-0.1	100%	-0.1	-0.1	5.0	5.0	0.0	0.0	0.88
SEK	0.0	-0.5	100%	-0.5	-0.5	87.0	87.0	0.0	0.0	10.52

Currency	Carrying amount (assets) Dec. 31, 2023 in millions of €	Carrying amount (liabilities) Dec. 31, 2023 in millions of €	Hedge ratio	Change in value of hedging instruments in millions of €	Change in value of hedged items in millions of €	Nominal amount in each foreign currency in millions	Maturity: 1 - 6 months	Maturity: 7 - 12 months	Average exercise price
USD	8.0	-0.3	100%	7.6	7.6	411.1	193.6	217.5	1.10
SGD	0.3	-0.2	100%	0.2	0.2	65.6	33.2	32.4	1.46
CHF	0.0	0.0	100%	0.0	0.0	1.1	1.1	0.0	0.94
JPY	1.1	0.0	100%	1.1	1.1	5,490.0	3,120.0	2,370.0	146.77
GBP	0.2	-0.4	100%	-0.2	-0.2	65.6	32.7	32.9	0.88
SEK	0.4	0.0	100%	0.4	0.4	168.0	88.0	80.0	11.42
AUD	0.0	-0.1	100%	-0.1	-0.1	8.5	8.5	0.0	1.66

In the statement of financial position, hedging instruments with a positive fair value are disclosed under "Financial assets (non-current)" and "Other financial assets (current)," while instruments with a negative fair value are reported under "Other financial liabilities (non-current)" and "Other financial liabilities (current)."

38. Interest Risk Management

In September 2023, the Group issued long-term, unsecured, fixed-rate bonds with a total volume of €3 billion and maturities of 3, 6, 9 and 12 years (see Note 31) via Sartorius Finance B.V., which was founded for financing purposes. To hedge interest rate risk for the period until the bond issuance, the Group had entered into interest rate swaps for a bond volume of €1.8 billion. The derivatives were designated as hedging instruments for the interest rate risk in connection with the planned bond issuance in accordance with IFRS 9. The changes in the value of the derivatives were thus initially recognized in other comprehensive income and are reclassified to profit or loss over the life of the bonds. At the time of the bond issuance, an amount of €6.3 million was recognized in other comprehensive income. Ineffectiveness in the amount of €1.7 million was recognized in the financial result. In fiscal 2023, an amount of €0.4 million was reclassified from the hedging reserve to the financial result.

The entire Sartorius Group is generally financed through Sartorius AG and Sartorius Finance B.V., which use internal Group loans to ensure the financing of all Group companies. The Sartorius Group is exposed to interest rate risks, as some funds are taken out at variable interest rates. As of December 31, 2023, the Group predominantly obtained financing at fixed interest rates (approx. 85%), meaning that interest rate risk is currently of minor significance for the Group's net worth, financial position, and earnings. Except for the interest rate hedge described above, as in the prior year, no interest rate hedges are currently being used to hedge against increasing interest rates.

As of December 31, 2023, the volume of variable interest loans was around €601.3 million (prior year: €439 million). For the financial instruments held as of the reporting date, a sensitivity analysis yields the following results: If the market interest rate had been 1.0 percentage point higher on the reporting date, this would have had an impact on annual profit before taxes of -€3.3 million resulting from the variable interest loans (prior year: -€3.3 million). If the market interest rate had been lower by 1.0 percentage point, the impact from the variable interest rate loans on the profit before taxes would have been €4.7 million (prior year: €0.9 million).

39. Liquidity Risk Management

The following table shows the liquidity analysis for financial liabilities, excluding derivatives, in the form of contractually agreed undiscounted cash flows based on conditions as of the reporting date:

In millions of €	Carrying amount Dec. 31, 2022	Cash flow Dec. 31, 2022	< 1 year	1 to 5 years	> 5 years
Loans and borrowings	2,397.6	2,598.3	564.0	1,504.4	529.8
Lease liabilities	143.6	171.5	36.3	77.4	57.8
Trade payables	304.9	304.9	304.9	0.0	0.0
Other liabilities (excluding derivatives)	349.2	357.7	133.0	224.7	0.1
Financial liabilities	3,195.3	3,432.4	1,038.2	1,806.5	587.7

In millions of €	Carrying amount Dec. 31, 2023	Cash flow Dec. 31, 2023	< 1 year	1 to 5 years	> 5 years
Loans and borrowings	5,164.2	6,522.3	449.1	2,692.4	3,380.8
Lease liabilities	147.2	192.4	40.2	85.8	66.4
Trade payables	306.5	306.5	306.5	0.0	0.0
Other liabilities (excluding derivatives)	166.5	168.1	52.8	104.8	10.5
Financial liabilities	5,784.4	7,189.4	848.7	2,883.0	3,457.7

The carrying amounts and cash flows for the derivatives are shown as follows:

In millions of €	Carrying amount Dec. 31, 2022	Cash flow Dec. 31, 2022	< 1 year	1 to 5 years	> 5 years
Gross fulfillment					
Forward contracts	11.4	11.4	11.3	0.1	0.0
Payment obligation			294.5	3.3	0.0
Payment claim			−283.2	−3.2	0.0
Derivatives	11.4	11.4	11.3	0.1	0.0

In millions of €	Carrying amount Dec. 31, 2023	Cash flow Dec. 31, 2023	< 1 year	1 to 5 years	> 5 years
Gross fulfillment					
Forward contracts	2.2	2.2	2.2	0.0	0.0
Payment obligation			247.2	0.0	0.0
Payment claim			–245.0	0.0	0.0
Derivatives	2.2	2.2	2.2	0.0	0.0

The Group controls liquidity risks by maintaining credit lines and additional facilities with banks, continuously tracking the forecasted and actual cash flows, and managing the maturity profiles of financial assets and liabilities.

It is not expected that cash outflows will occur at materially different reporting dates or in materially different amounts.

Local cash funds in certain countries (e.g., China and India) are only available to the Group for cross-border transactions subject to exchange controls. For the restrictions regarding local cash funds in Russia, see Note 4.

As in the previous year, all derivative financial instruments of the Group are subject to the German Master Agreement for Financial Futures with regard to offsetting of the cash flows. As of December 31, 2023, derivative financial assets amounted to €7.1 million (prior year: €8.1 million) and derivative financial liabilities amounted to €2.2 million (€11.4 million), which were subject to framework agreements. On a net basis, derivative financial assets would have amounted to €5.3 million (prior year: €1.9 million) and derivative financial liabilities would have amounted to €0.4 million (€5.1 million) on December 31, 2023.

The syndicated credit line amounting to €800 million at variable interest rates was not utilized as of December 31, 2023 (utilization prior year: €80 million). In addition, the Group had further bilateral credit lines at variable interest rates available until further notice amounting to around €470 million as of December 31, 2023 (prior year: €475 million). On the reporting date, no material amounts had been drawn under these credit lines (prior year: €100 million).

As of December 31, 2023, there were no financing agreements that require the Group to comply with financial key ratios, so-called financial covenants.

40. Credit Risk Management

Credit risk is the risk of financial loss to the Sartorius Group if a counterparty to a financial instrument fails to meet its contractual obligations. Credit risks arise in particular from trade receivables as well as from cash and cash equivalents and bank deposits. Moreover, the Group is exposed to credit risks arising from derivatives with a positive fair value and, to a low degree, to other contractual cash flows from debt securities.

Credit risk is managed centrally for the Group by the Treasury Management unit. The creditworthiness of banks and financial institutions as counterparties of the Group is continuously monitored in order to detect increases in credit risks at an early stage. If no new information is obtained, the Group assumes that its related financial assets still have only a low credit risk.

Customers are assigned to different risk limits, which are essentially based on business volume, past experience, and the net worth and financial situation of these customers. The management responsible for these customers regularly reviews compliance of their assigned customers with these credit limits. In some cases, advance payments are required for deliveries to avoid credit risks. There are no significant concentrations of credit risks arising from individual customers or regions.

For some trade receivables, the Group has collateral, such as guarantees, financial securities, and suretyship contracts to which the Group can resort under the contractual arrangements should a counterparty default on its payment obligations. No material collateral exists in relation to financial assets that are considered as credit-impaired on the reporting date.

Impairment of Financial Assets
Trade Receivables and Contract Assets

Trade receivables and contract assets, in particular, are required to be measured according to the model for recognition of expected credit losses.

The Sartorius Group applies the simplified impairment approach according to IFRS 9 for trade receivables and contract assets, thus taking lifetime expected credit losses into account. The impairment model starts with an analysis of the actual historical credit loss rates. These are adjusted, taking into consideration forward-looking information and the effects of current changes in the macroeconomic environment, if significant. Because of the Group's focus on the biopharma industry that has presented itself as largely stable and independent of macroeconomic developments, the Group does currently not see material impact from macroeconomic developments and forward-looking information on the expected credit losses (see also Note 4). Due to the immaterial level of historical credit losses, the Group continues to determine the expected credit losses for its portfolio of trade receivables as a whole. However, historical loss rates are analyzed regularly in more detail in order to apply different loss rates to different portfolios if necessary. Contract assets relate to projects for typical Sartorius customers so that the Group assumes that the loss rates applied to trade receivables appropriately approximate the loss rates of the contract assets. Accordingly, there is no further differentiation between trade receivables and contract assets.

On this basis, the allowances for trade receivables and contract assets were determined as follows for the year ended December 31, 2023, and as of the previous reporting date on December 31, 2022:

Dec. 31, 2022 in millions of €	Not due	1-30 days overdue	31-60 days overdue	61-90 days overdue	More than 90 days overdue	Total
Gross carrying amount of trade receivables	367.6	9.8	22.8	19.0	66.9	486.2
Gross carrying amount of contract assets	13.8	0.0	0.0	0.0	0.0	13.8
Impairment loss allowance	0.2	0.0	0.0	0.3	15.0	15.6

Dec. 31, 2023 in millions of €	Not due	1-30 days overdue	31-60 days overdue	61-90 days overdue	More than 90 days overdue	Total
Gross carrying amount of trade receivables	264.3	25.8	16.1	4.8	40.1	351.1
Gross carrying amount of contract assets	16.7	0.0	0.0	0.0	0.0	16.7
Impairment loss allowance	0.2	0.4	0.1	0.1	16.6	17.3

The impairments in the reporting period include those related to trade receivables measured at fair value through other comprehensive income, which amount to approximately €4.9 million (prior year: €4.1 million).

The expected credit losses are determined based on a loss rate of 0.05%. In addition, impairments are determined on the basis of individual assessments. Days overdue are one essential criterion in this context. A default is generally presumed when there is no longer any reasonable expectation of recovering a financial asset. In such a case, the respective receivables are derecognized.

The movements in the allowance for impairment losses on trade receivables and contract assets are presented below:

In millions of €	2023	2022
Valuation allowances at January 1	–15.6	–15.5
Net remeasurement of loss allowance recognized in profit or loss	–8.1	–7.6
Derecognition and consumption	1.1	1.4
Recoveries of amounts previously impaired	5.1	6.3
Currency effects	0.2	–0.1
Changes in scope of consolidation	–0.1	0.0
Valuation allowances at December 31	–17.3	–15.6

Cash and Cash Equivalents

Besides trade receivables, cash and cash equivalents were the most significant financial assets in the Group's statement of financial position as of December 31, 2023, as was the case in the previous year. The expected credit losses are monitored at regular intervals. Due to the high creditworthiness of the counterparties and the short maturities or contract terms, which are short by definition, any impairment that would theoretically have to be recognized for these financial assets is immaterial. Therefore, no impairment is recognized for cash and cash equivalents.

Other Financial Assets

For the other financial assets measured at amortized cost, as in the previous year, no impairment was recognized as of December 31, 2023 for the twelve months of expected credit losses due to immaterial historical credit losses. In the event of a significant increase in credit risk, which is generally presumed when a payment is more than 30 days past due, the lifetime expected credit losses are recognized for the respective financial asset. A default is generally presumed if there is no longer any reasonable expectation of recovering a financial asset. This is generally presumed when payments are more than 90 days past due. As of the reporting date, there are no indications of increases in credit risk to a material extent. The carrying amounts of the financial assets reflect the maximum credit loss for these assets at the end of the fiscal year.

41. Other Risks Associated with Financial Instruments

As of the reporting date December 31, 2023, the Sartorius Group was exposed to risks arising from the volatility of the share price of Sartorius Stedim Biotech S.A. because of the contingent consideration in connection with the acquisition of BIA Separations. Furthermore, risks result from the volatility of the share price of BICO Group AB. The Group's investment in this Swedish stock-listed company is measured at fair value through other comprehensive income on the reporting date in the consolidated financial statements. As of the reporting date, there were no other significant risks of volatility in share prices; only vested portions of share-based payments are linked directly to the price development of Sartorius stock (see Note 42).

For details on other types of risk, please refer to the Group Management Report.

42. Share-Based Payments

Within the Sartorius Group, share-based payments are made in the form of so-called phantom stock units at Sartorius AG as well as in the context of the so-called Long-Term Incentive Program (LTI Program).

In fiscal 2022, the Group introduced a new long-term remuneration component for selected employees at the higher management levels, the so-called LTI Program. At the beginning of a calendar year, each participant of this program is granted virtual preference shares of Sartorius AG that will be paid out in cash after four years. Accordingly, the payment for the tranche of virtual shares granted in 2022 (2023) is planned for the first quarter of 2026 (2027). The number of virtual shares varies with the performance achieved over the four years preceding the payout period. Goals are defined for the dimensions organic sales growth, underlying EBITDA margin, and CO_2 emission intensity, which are equally weighted. The measurement of the share-based payment obligations is based on the performance achieved to date, assumptions about future performance in the remaining years until payment, and the current share price. The income from granting and measuring the virtual shares amounted to €0.2 million in fiscal 2023 (prior year: expense: €0.6 million). The fair value of the obligation on the reporting date of December 31, 2023 amounted to €0.4 million (prior year: €0.6 million) and is reported under "Other non-current provisions" (see Note 24).

The phantom stock units are virtual options on the shares of Sartorius AG. Specifically, the company's phantom stock plan credits each member of the Executive Board at the beginning of every year with phantom stock units valued at an agreed amount. These phantom stock options may be exercised no earlier than four years after this sum has been credited and only if certain conditions with respect to the performance of Sartorius AG shares are met. If an Executive Board member exercises an option, the number of phantom stock units granted is evaluated at the current stock exchange price. The amount paid out is capped at 2.5 times the grant price. The fair value of the phantom stock units was measured using a Black-Scholes model and is disclosed as follows:

Components with a long-term incentive effect	Number of phantom stock units	Fair value at year-end on Dec. 31, 2023 in millions of €	Fair value at year-end on Dec. 31, 2022 in millions of €	Paid out in millions of €
Tranche for fiscal 2019	5,413	0.0	1.5	1.5
Tranche for fiscal 2020	3,332	1.1	1.2	0.0
Tranche for fiscal 2021	2,084	0.6	0.7	0.0
Tranche for fiscal 2022	1,646	0.4	0.5	0.3
Tranche for fiscal 2023	3,374	1.0	0.0	0.0
	15,849	3.1	3.9	1.8

In fiscal 2023, income relating to granting and measuring phantom stock units amounted to €0.7 million (prior year: €0.3 million). As in the prior year, no phantom stock units were exercisable on the reporting date. All phantom stock units granted in the reporting year were attributable to members of the Executive Board.

The members of the Executive Board were each granted a supplementary compensation component, which provides for transferring shares of the company to them. These share-based payments are subject to the rules of IFRS 2. Based on the agreed conditions, the resulting amounts are to be spread as an employee benefits expense from the respective grant date over the full vesting period of the respective plan. In fiscal 2023, an amount of €0.6 million (prior year: €1.3 million) was therefore recognized as an employee benefits expense resulting from the granting of shares. For further details on the phantom stocks and the share-based remuneration of the Executive Board members, please refer to the Remuneration Report.

Other Disclosures

The consolidated financial statements were prepared on a going-concern basis.

The exemption options provided by Section 264 (3) of the German Commercial Code (HGB) were applied to the annual financial statements reported by Sartorius Lab Holding GmbH, Sartorius Weighing Technology GmbH, and Sartorius Corporate Administration GmbH, all based in Göttingen, for the year ended December 31, 2023.

The exemption options provided by Section 264b of the HGB were applied to the annual financial statements reported by SIV Weende GmbH & Co. KG, SIV Grone 1 GmbH & Co. KG, and Sartorius Lab Instruments GmbH & Co. KG, all based in Göttingen, for the year ended December 31, 2023.

Material Events after the Reporting Date

On February 7, 2024, Sartorius AG completed the placement of 613,497 preference shares held by the company excluding the subscription rights of existing shareholders. The preference shares were placed at a price of €326.00 per share. Gross proceeds amount to approximately €200 million. The placement preference shares were issued exclusively to institutional investors in the course of a private placement through an accelerated bookbuild and will be fully entitled to dividends from January 1, 2023.

The net proceeds from the placement of treasury shares will accelerate the deleveraging of the Sartorius Group beyond a strong operating cash flow as well as strengthen the strategic flexibility of the company as a whole.

Independent of the above, Sartorius' French listed sub-group Sartorius Stedim Biotech S.A. also carried out a capital increase on February 7, 2024, where 5,150,215 new shares with a volume of approximately €1.2 billion were placed in the course of an accelerated bookbuild. Sartorius AG has participated in this capital increase by acquiring 1,716,739 new SSB shares with a total volume of approximately €400 million at a placement price of €233.00. After completion of the capital increase, Sartorius AG's stake in Sartorius Stedim Biotech S.A. will amount to approximately 71.5 % of the share capital.

Taking these measures into account, the Group anticipates a reduction of net debt by around €1 billion.

No other material events occurred up to the end of the preparation of these consolidated financial statements.

Declaration According to Section 314 (1) No. 8 of the German Commercial Code (HGB)

The declaration relating to the German Corporate Governance Code prescribed by Section 161 of the German Stock Corporation Act (AktG) was submitted on December 7, 2023, and made available to the shareholders of Sartorius AG on the company's website at www.sartorius.com.

Members of the Supervisory Board and the Executive Board

The members of the Supervisory Board and the Executive Board are listed at the end of this section, as are the further additional disclosures pursuant to Section 285 no. 10 of the German Commerical Code (HGB).

Number of Employees

This table shows the average workforce employed during the fiscal year:

	2023	2022
Bioprocess Solutions	11,669	12,434
Lab Products & Services	3,340	3,272
Total	15,009	15,707

Auditors' Fee

In fiscal 2022 and 2023, the following fees were incurred by the Group for the auditors, KPMG AG:

In millions of €	2023	2022
Audits	1.2	1.0
Tax consultation services	0.0	0.0
Other attestation services	0.3	0.1
Other services	0.0	0.0
	1.4	1.2

The fees for statutory audits include the audit review fee of €0.2 million (prior year: €0.1 million) for the first-half financial report pursuant to Section 115 (5) of the German Securities Trading Act (WpHG), as well as other services directly prompted by the audit.

Related Companies and Persons

The Group companies included in the consolidated financial statements carry out business activities and transactions in related party relationships as defined by IAS 24. In particular, this concerns transactions with non-consolidated subsidiaries that are generally entered into on an arm's length basis. A long-term service contract exists with an affiliated company. For this contract, expenses of €15.6 million were incurred and reported in the consolidated financial statements in the reporting year (prior year: €15.7 million). Details on the transactions completed in the reporting year and the balances outstanding on the reporting date are provided in the relevant sections of these Notes to the Financial Statements, specifically in Note 29.

According to IAS 24, related persons are, among others, those individuals responsible for the planning, management, and control of a reporting entity. In particular, such persons include the members of the Executive Board and of the Supervisory Board of Sartorius AG. The total remuneration of the Supervisory Board members was €1.6 million (prior year: €1.0 million); that of the Executive Board members amounted to €4.9 million (prior year: €5.9 million). The remuneration of former managing directors and members of the Executive Board and their surviving dependents was €0.5 million (prior year: €0.7 million). The pension obligations to former managing directors and members of the Executive Board and their surviving dependents totaled €9.8 million (prior year: €9.0 million). For details on remuneration, please refer to the Remuneration Report. In addition to their Supervisory Board remuneration, the employee representatives who are employees of the Sartorius Group receive compensation that is not related to their service on the Supervisory Board.

The total remuneration of the Executive Board members according to IFRS is shown in the following table:

In millions of €	2023	2022
Short-term benefits (excl. share-based remuneration)	3.0	3.7
Post-employment benefits	0.6	0.7
Other long-term benefits	0.7	0.7
Share-based payments	1.3	1.1
Total remuneration	5.6	6.3

Partial payments on multi-year variable remuneration of the Executive Board members:

In millions of €	2023	2022
Balance as of Jan. 1 of a fiscal year	0.8	0.6
Partial payments deducted	-0.4	-0.3
Partial payments effected	0.0	0.4
Balance as of Dec. 31 of a fiscal year	0.3	0.8

The total remuneration of the Supervisory Board members is as follows:

In millions of €	2023	2022
Short-term benefits (excl. share-based remuneration)	1.6	1.0
Post-employment benefits	0.0	0.0
Other long-term benefits	0.0	0.0
Share-based payments	0.0	0.0
Total remuneration	1.6	1.0

Proposal for Appropriation of Profit

The Supervisory Board and the Executive Board will submit a proposal to the Annual Shareholders' Meeting to appropriate the retained profit of €283,012,753.53 reported by Sartorius AG for the year ended December 31, 2023 for dividend payments in the amount of €50,743,967.58 (€0.73 per ordinary share, €0.74 per preference share):

	€
Payment of a dividend of €0.73 per ordinary share	24,987,482.44
Payment of a dividend of €0.74 per preference share	25,756,485.14
Unappropriated profit carried forward	232,268,785.95
	283,012,753.53

Göttingen, February 7, 2024

Sartorius Aktiengesellschaft

The Executive Board

Dr. Joachim Kreuzburg

Dr. René Fáber

Dr. Alexandra Gatzemeyer

Independent Auditors’ Report

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Sartorius Aktiengesellschaft, Göttingen, Germany, and its subsidiaries (the Group) – which comprise the consolidated statement of financial position as of December 31, 2023, the consolidated statement of profit and loss, the consolidated statement of comprehensive income, consolidated statement of cash flows and the consolidated statement of changes in equity for the fiscal year from January 1 until December 31, 2023 and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the report on the position of the company and the Group (hereinafter referred to as the “group management report”) of Sartorius Aktiengesellschaft for the fiscal year from January 1 to December 31, 2023.

In accordance with the German legal requirements, we have not audited the content of the parts of the group management report mentioned in the section on “Other Information” of our independent auditor’s report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e(1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2023 as well as of the results of its operations for the fiscal year from January 1 to December 31, 2023 and

- the accompanying group management report as a whole provides an appropriate view of the Group’s position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities of and risks to future performance. Our opinion on the group management report does not cover the content of the group management report mentioned in the section “Other Information.”

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and the group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the EU Audit Regulation No. 537/2014 (referred to subsequently as “EU Audit Regulation”) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements and of the group management report” section of our auditor’s report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from January 1 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Acquisition of Polyplus

The accounting policies as well as the assumptions made are disclosed in the notes to the consolidated financial statements in note 8. Information on the acquisition of the Polyplus Group can also be found in the notes to the consolidated financial statements in note 8.

THE FINANCIAL STATEMENT RISK

The Sartorius Group acquired PolygenX A SAS, Illkirch-Graffenstaden, France, for a purchase price of €2,226 million on July 18, 2023. Taking into account the acquired net assets in the amount of €523 million, the provisional purchase price allocation resulted in goodwill of €1,703 million. Among other things, technologies in the amount of €790 million and customer relationships in the amount of €48 million were recognized as separate components of acquired net assets in the provisional purchase price allocation.

In accordance with IFRS 3, the identifiable assets acquired and liabilities assumed are generally measured at their fair value at the time of acquisition. Sartorius consulted an external expert to identify and measure the identifiable assets acquired and liabilities assumed as part of the provisional purchase price allocation.

Identifying and measuring the assets acquired and liabilities assumed is a complex undertaking involving discretionary assumptions on the part of the Executive Board. The significant assumptions, particularly in relation to the intangible assets recognized separately as part of the provisional purchase price allocation, concern sales planning and the development of margins, the useful lives assumed for each asset, value erosion and the cost of capital.

OUR AUDIT APPROACH

With the support of our own valuation specialists, we assessed, among other aspects, the appropriateness of the significant assumptions and of the identification and valuation methods. To this end, we first obtained an understanding of the acquisition by questioning employees in the Finance Department and examining the relevant contracts.

We checked the total purchase price against the purchase agreement and payment records.

We evaluated the expertise, competence and objectivity of the independent expert entrusted by Sartorius with preparing the purchase price allocation. Using our knowledge of Polyplus' business model, we also examined the process used to identify the assets acquired and liabilities assumed to evaluate its consistency with the requirements of IFRS 3. We examined the valuation methods applied for consistency with accounting policies.

We discussed the expected development of sales and margins used in the provisional purchase price allocation with those responsible for planning. We discussed the parameters used in measuring the intangible assets with the independent expert and viewed the documentation on which they were based. We compared the assumptions and data underlying the cost of capital – particularly the risk-free interest rate, market risk premium and beta factor – with our own assumptions and with publicly available data.

To evaluate mathematical accuracy, we reproduced selected calculations using a risk-oriented approach. Finally, we assessed whether the disclosures in the notes with respect to the acquisition of Polyplus are complete and appropriate.

OUR CONCLUSION

The process used to identify and measure the assets acquired and liabilities assumed is appropriate and consistent with the applicable accounting policies. The significant assumptions and data are appropriate in the context of the provisional nature of the purchase price allocation. The presentation in the notes to the consolidated financial statements is complete and appropriate.

Other Information

The legal representatives and/or the Supervisory Board are responsible for the other information. Other information comprises the following parts of the group management report, the content of which has not been audited:

- The non-financial group statement is included in the section of the same name in the group management report

- The corporate governance statement, in the section of the same name in the group management report

The other information additionally covers the remaining parts of the annual report. Other information does not encompass the consolidated financial statements, the content of the audited group management report disclosures, or our associated auditor's report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of audit conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information:

- Is materially inconsistent with the consolidated financial statements, with the group management report, or our knowledge obtained in the audit

- Otherwise appears to be materially misstated

In accordance with our engagement, we performed a separate audit of the Non-financial Group Statement. With regard to the nature, scope and results of this audit, we refer to our audit report of February 8, 2024.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The legal representatives are responsible for the preparation of the consolidated financial statements that company, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e(1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and results of operations of the Group. Furthermore, the legal representatives are responsible for the internal controls that they have determined are necessary to enable the preparation of consolidated financial statements that are free from material misstatements, whether due to fraud or error (i.e., manipulation of the financial statements and misappropriation of assets).

In preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group's ability to continue as a going concern. In addition, they have the responsibility for disclosing, as applicable, matters related to continuing as a going concern. Furthermore, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the legal representatives are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the position of the Group and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks to future performance. In addition, the legal representatives are responsible for such arrangements and measures (systems) they have deemed necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the financial reporting process used by the Group to prepare the consolidated financial statements and the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatements, whether due to fraud or error, and whether the group management report as a whole provides a suitable view of the position of the Group and is consistent, in all material respects, with the consolidated financial statements and the audit findings, complies with German legal requirements, and suitably presents the opportunities and risks to future performance, and to issue an auditor's report that includes our audit opinion on the consolidated financial statements and the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence financial decisions made on the basis of these consolidated financial statements and the group management report.

During the audit, we exercise professional judgment and maintain a critical attitude. We also:

- Identify and assess the risks of material misstatements in the consolidated financial statements and in the group management report, whether due to fraud or error; plan and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk that material misstatements resulting from fraudulent activities will not be detected is higher than the risk that material misstatements resulting from errors will not be detected, as fraudulent activities may involve collusion, forgery, intentional omissions, misleading representations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of the of accounting policies used by the legal representatives and the reasonableness of estimates made by the legal representatives and related disclosures.

- Conclude on the appropriateness of the legal representatives' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure, and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and results of operations of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision, and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the position of the Group that it provides.

- Perform audit procedures on the prospective information presented by the legal representatives in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the legal representatives as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information or on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and discuss with them all relationships and other matters that may reasonably be thought to bear on our independence and, where relevant, the actions taken or safeguards implemented to address threats to our independence.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance Engagement for the Electronic Reproductions of the Consolidated Financial Statements and the Group Management Report Prepared for the Purposes of Disclosure Pursuant to Section 317(3a) of the German Commercial Code (HGB)

In accordance with Section 317(3a) of the German Commercial Code (HGB), we have performed a reasonable assurance engagement to determine whether the reproductions of the consolidated financial statements and the group management report (hereinafter also referred to as "ESEF documents") contained in the file "sartoriusag.zip" (SHA256 -hash value: 04101aae5fd3bad37 dd2fe40561acb173dfd23b8a2a186d3d59f58452adbf1cb) and prepared for disclosure purposes comply in all material respects with the requirements of Section 328(1) of the German Commercial Code regarding the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance engagement only extends to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor any other information contained in the above-mentioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the group management report contained in the aforementioned electronic file and prepared for publication purposes complies in all material respects with the requirements of Section 328(1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the aforementioned file beyond this reasonable assurance conclusion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the fiscal year from January 1 to December 31, 2023 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Group Management Report" above.

We conducted our audit of the reproductions of the consolidated financial statements and the group management report contained in the aforementioned provided file in accordance with Section 317 (3a) of the German Commercial Code (HGB) and in compliance with the IDW Auditing Standard: Audit of Electronic Reproductions of Financial Statements and Management Reports Prepared for Disclosure Purposes in Accordance with Section 317(3a) of the HGB (IDW PS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Accordingly, our responsibilities are further described below. Our auditing practice has applied the quality management standard: Requirements for Quality Management in Auditing Practice (IDW QMS 1 (09.2022)).

The company's legal representatives are responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the group management report in accordance with Section 328(1) sentence 4 No. 1 of the German Commercial Code (HGB) and for the tagging of the consolidated financial statements in accordance with Section 328(1) sentence 4 No. 2 of the German Commercial Code (HGB).

In addition, the company's legal representatives are responsible for the internal controls they consider necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328(1) of the German Commercial Code (HGB) for the electronic reporting format.

The Supervisory Board is responsible for overseeing the process of preparation of the ESEF documents as part of the financial reporting process.

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of Section 328(1) HGB, whether due to fraud or error. During the audit, we exercise professional judgment and maintain a critical attitude. We also:

- Identify and assess the risks of material non-compliance with the requirements of Section 328(1) HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance conclusion

- Obtain an understanding of internal control relevant to the assessment of the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of these controls

- Evaluate the technical validity of the ESEF documents, i.e. whether the provided electronic file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815 in the version applicable on the reporting date relating to the technical specification for this electronic file

- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and the audited group management report

- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with Articles 4 and 6 of Commission Delegated Regulation (EU) 2019/815 in the version applicable on the reporting date provides an appropriate and complete machine-readable XBRL copy of the XHTML reproduction

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on March 29, 2023. We were engaged by the Supervisory Board on October 11, 2023. We have been the group auditor of Sartorius Aktiengesellschaft without interruption since the 2015 fiscal year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

In addition to the consolidated financial statements, we audited the annual financial statements of Sartorius Aktiengesellschaft and carried out various audits of annual financial statements of subsidiaries. In addition, we audited interim financial statements. Furthermore, contractual audits were performed, such as the review of the Non-financial Group Statement as well as the audit of the Remuneration Report and the issue of a comfort letter.

Other Matters – Use of the Auditor's Report

Our auditor's report must always be read in connection with the audited consolidated financial statements, the audited group management report, and the audited ESEF documents. The consolidated financial statements and the group management report converted into the ESEF format – including the versions to be entered in Germany's Company Register – are merely electronic reproductions of the audited consolidated financial statements and the audited group management report and do not replace them. In particular, the ESEF report and our opinion in it must be used only in conjunction with the audited ESEF documents provided in electronic form.

Information on the Supplementary Audit

We have issued this audit report for the *consolidated financial statements* and *group management report* and for the electronic reproductions of the *consolidated financial statements* and *group management report*, submitted for audit for the first time in the file "sartoriusag.zip" SHA256-hash value: 04101aae5fd3bad37 dd2fe40561acb173dfd23b8a2a186d3d59f58452adbf1cb) and prepared for disclosure purposes, on the basis of our dutifully performed audit completed on February 8, 2024 and our supplementary audit completed on February 14, 2024, which related to the first-time submission of the ESEF documents.

German Public Auditor Responsible for the Engagement

Haiko Schmidt is the German Public Auditor (Wirtschaftsprüfer) responsible for conducting the audit.

Hanover, February 8, 2024/Limited to the review of the ESEF documents
mentioned in the note on the supplementary audit: February 14, 2024

KPMG AG
Wirtschaftsprüfungsgesellschaft

Schmidt (German Public Auditor)	Hartke (German Public Auditor)

Executive Board and Supervisory Board

During Fiscal 2023

Executive Board

Dr. Joachim Kreuzburg
Dipl.-Ingenieur (Graduate Engineer)
CEO and Chairman
Executive for Labor Relations
Corporate Strategy, Human Resources, Corporate Research, Legal Affairs & Compliance, Communications and Sustainability
Interim lead of Finance, Information Technology, Data Management, Corporate Sourcing until March 31, 2024
Born April 22, 1965
Resident of Göttingen, Germany
Member since November 11, 2002
"Sprecher" (Spokesman) from May 1, 2003, to November 10, 2005
Chairman since November 11, 2005
Appointed until November 10, 2025

Dr. René Fáber
Dipl.-Chemiker (Graduate Chemical Engineer)
Bioprocess Solutions Division
Born July 18, 1975
Resident of Göttingen, Germany
Member since January 1, 2019
Appointed until December 31, 2026

Dr. Alexandra Gatzemeyer
Ph.D. in Chemistry
Lab Products & Services Division
Born July 8, 1979
Resident of Bodenrode-Westhausen, Germany
Member since May 1, 2023
Appointed until April 30, 2026

Exited during Fiscal 2023:

Rainer Lehmann
Dipl.-Kaufmann (Graduate in Business Administration)
Finance, IT and Business Processes
Born March 2, 1975
Resident of Brightwaters, New York, USA
Member from March 1, 2017 until October 31, 2023

John Gerard Mackay
B.Sc. Honors Degree in Biochemistry
Master of Education
Lab Products & Services Division
Born May 11, 1962
Resident of Glasgow, Scotland, UK
Member from January 1, 2019 until June 15, 2023

Supervisory Board

Dr. Lothar Kappich
Dipl.-Ökonom (Graduate Economist)
Chairman
Freelance Consultant, formerly Managing Director of ECE Projektmanagement GmbH & Co. KG in Hamburg, Germany
Resident of Hamburg, Germany

Manfred Zaffke
Dipl.-Volkswirt (Graduate Political Economist)
Vice Chairman
Project Secretary responsible for special tasks at the German Metalworkers' Union (IG Metall) branch office of the southern Lower Saxony/Harz region in Northeim, Germany
Resident of Osterode am Harz, Germany

Annette Becker
Personalfachkauffrau (HR Specialist)
Chairwoman of the Employees' Council of Sartorius Corporate Administration GmbH in Göttingen, Germany
Vice Chairwoman of the Group Employees' Council of Sartorius AG in Göttingen, Germany
Resident of Gleichen, Germany

Professor David Raymond Ebsworth, Ph.D.
B.Sc. in Chemistry and German; Ph.D. in Comparative Industrial Relations
Consultant, especially in the Healthcare and Financial Investment Industry
Resident of Overath, Germany

Dr. Daniela Favoccia
Attorney and Partner of the Hengeler Mueller partnership of lawyers in Frankfurt am Main, Germany
Resident of Frankfurt am Main, Germany

Petra Kirchhoff
Dipl.-Volkswirtin (Graduate Political Economist)
Head of Corporate Communications and Investor Relations
Sartorius Corporate Administration GmbH in Göttingen, Germany
Resident of Göttingen, Germany

Dietmar Müller
Betriebswirt (VWA Göttingen) (Business Economist)
Chairman of the Employees' Council of Sartorius Stedim Biotech GmbH in Göttingen, Germany
Chairman of the Group Employees' Council of Sartorius AG in Göttingen, Germany
Resident of Gleichen, Germany

Ilke Hildegard Panzer
M.Sc. in Engineering, Computer and Systems Engineering
Freelance Consultant in the Healthcare Innovation Industry
Resident of Fredonia, Wisconsin, USA

Frank Riemensperger
Dipl.-Informatiker (Graduate Degree in Computer Science)
Founder and Managing Director of 440.digital GmbH in Dietzenbach, Germany
Consultant and Investor in Digital Companies
Resident of Dietzenbach, Germany

Hermann Jens Ritzau
Chairman of the Employees' Council of Sartorius Lab Instruments GmbH & Co. KG in Göttingen, Germany
Member of the Group Employees' Council of Sartorius AG in Göttingen, Germany
Resident of Katlenburg-Lindau, Germany

Prof. Dr. Klaus Rüdiger Trützschler
Dipl.-Wirtschaftsmathematiker (Graduate Business Mathematician)
and Dipl.-Mathematiker (Graduate Mathematician)
Freelance Business Consultant
Resident of Essen, Germany

Sabrina Wirth
B.A. in Social Science
Political Secretary for Organizational Policy in the District Management of the German Metalworkers' Union (IG Metall) District of Lower Saxony and Saxony-Anhalt in Hanover, Germany
Resident of Nienburg/Weser, Germany

Committees of the Supervisory Board

Executive Task Committee
Dr. Lothar Kappich (Chairman)
Annette Becker
Prof. Dr. Klaus Rüdiger Trützschler
Manfred Zaffke

Audit Committee
Prof. Dr. Klaus Rüdiger Trützschler (Chairman)
Dr. Lothar Kappich
Dietmar Müller
Manfred Zaffke

Conciliation Committee
Dr. Lothar Kappich (Chairman)
Annette Becker
Prof. Dr. Klaus Rüdiger Trützschler
Manfred Zaffke

Nomination Committee
Dr. Lothar Kappich (Chairman)
Dr. Daniela Favoccia
Prof. Dr. Klaus Rüdiger Trützschler

Positions Held by the Members of the Executive Board during Fiscal 2023

Dr. Joachim Kreuzburg

Positions held within the Group:
On the Conseil d'Administration (Board of Directors) of:

- Sartorius Stedim Biotech S.A.[1], France, Chairman

On the Supervisory Board of:

- Sartorius Corporate Administration GmbH, Germany, Chairman (since November 1, 2023)

On the Beirat (Advisory Board) of:

- LabTwin GmbH, Germany, Chairman

On the Board of Directors of:

- Sartorius North America, Inc., USA, Chairman

External positions:
On the Supervisory Board of:

- Carl Zeiss AG, Germany

On the Verwaltungsrat (Administrative Board) of:

- Ottobock Management SE, Germany

On the Wirtschaftsbeirat (Economic Advisory Board) of:

- Norddeutsche Landesbank, Germany (until December 31, 2023)

Dr. René Fáber

Positions held within the Group:
On the Conseil d'Administration (Board of Directors) of:

- Sartorius Stedim Biotech S.A.[1], France (Directeur Général)

On the Supervisory Board of:

- Sartorius Stedim Biotech GmbH, Germany, Chairman

On the Beirat (Advisory Board) of:

Sartorius CellGenix GmbH, Germany, Chairman

1 publicly listed

On the Board of Directors of:

- Sartorius Stedim (Shanghai) Trading Co., Ltd., China
- Sartorius Stedim Biotech (Beijing) Co., Ltd., China, Vice Chairman (since July 25,2023)
- Albumedix Ltd., UK
- Sartorius Stedim BioOutsource Ltd., Scotland, UK (since December 18, 2023)
- Sartorius Korea Biotech LLC, South Korea
- Sartorius Korea Operations LLC, South Korea
- Sartorius Stedim Japan K.K., Japan (until March 26, 2023)
- Sartorius Stedim North America Inc., USA (since Novermber 1, 2023)

On the Comité Exécutif (Executive Committee) of:

- Sartorius Stedim FMT S.A.S., France, Chairman

On the Advisory Board of:

- Sartorius BIA Separations d.o.o., Slovenia, Chairman

External positions:
On the Beirat (Advisory Board) of:

- Curexsys GmbH, Germany

Dr. Alexandra Gatzemeyer[1]

Positions held within the Group:
On the Supervisory Board of:

- Sartorius Corporate Administration GmbH, Germany, Vice Chairwoman

On the Board of Directors of:

- Sartorius BioAnalytical Instruments, Inc., USA (since October 1, 2023)
- Sartorius Corporation, USA (since November 1, 2023)
- Sartorius Biohit Liquid Handling Oy, Finland (since October 1, 2023)
- Sartorius Scientific Instruments (Beijing) Co., Ltd., China, Vice Chairwoman (since July 25, 2023)
- Sartorius ForteBio (Shanghai) Co., Ltd., China (since May 10, 2023)
- Sartorius Lab (Shanghai) Trading Co., Ltd., China (since July 4, 2023)
- Sartorius (Shanghai) Trading Co., Ltd., China (since September 8. 2023)
- Sartorius Korea LLC, South Korea (since October 25, 2023)
- Biological Industries Israel Beit Haemek Ltd., Israel (until December 7, 2023)

On the Comité Exécutif (Executive Committee) of:

- Sartorius France S.A.S., France, Chairwoman

External positions:
None

1 The information on mandates relate to the period of membership of the Executive Board during Fiscal 2023.

Exited during Fiscal 2023:

Rainer Lehmann[1]
Positions held within the Group:
On the Supervisory Board of:

- Sartorius Corporate Administration GmbH, Germany, Chairman (since April 1, 2023)

On the Board of Directors of:

- Sartorius Corporation, USA
- Sartorius North America, Inc., USA
- Sartorius Stedim North America Inc., USA
- Sartorius BioAnalytical Instruments, Inc., USA
- Sartorius DC BPS Americas, Inc., USA (since February 2, 2023)
- Sartorius DC LPS Americas, Inc., USA (since February 2, 2023)
- Sartorius Stedim Filters, Inc., Puerto Rico

External positions:
On the Unternehmerbeirat (Employers' Advisory Board) of:

- Gothaer Versicherungsbank VVaG, Germany

On the Regionalbeirat (Regional Advisory Board) of:

- Commerzbank AG[2], Germany

John Gerard Mackay[1]

Positions held within the Group:
On the Board of Directors of:

- Sartorius BioAnalytical Instruments, Inc., USA
- Sartorius Biohit Liquid Handling Oy, Finland
- Sartorius Stedim BioOutsource Ltd., Scotland, UK
- Sartorius Scientific Instruments (Beijing) Co., Ltd., China, Vice Chairman
- Sartorius Hong Kong Ltd., China (until May 16, 2023)
- Sartorius ForteBio (Shanghai) Co., Ltd., China (until May 9, 2023)
- Sartorius (Shanghai) Trading Co., Ltd., China
- Sartorius Japan K.K., Japan (until March 22, 2023)
- Sartorius Korea LLC, South Korea

External positions:
On the Board of Directors of:

- BICO Group AB (publ)[1], Sweden (since May 11, 2023)

1 The information on mandates relate to the period of membership of the Executive Board during Fiscal 2023.
2 publicly listed

Positions Held by the Members of the Supervisory Board during Fiscal 2023

Dr. Lothar Kappich
Positions held within the Group:
On the Conseil d'Administration (Board of Directors) of:

- Sartorius Stedim Biotech S.A.[1], France

External positions:
None

Manfred Zaffke
Positions held within the Group:
None

External positions:
On the Supervisory Board of:

- Demag Cranes & Components GmbH, Germany
- Konecranes Holding GmbH, Germany

Annette Becker
Positions held within the Group:
None

External positions:
On the Verwaltungsrat (Administrative Board) of:

- BKK Technoform, Germany (since September 5, 2023)

Professor David Raymond Ebsworth, Ph.D.
Positions held within the Group:
None

External positions:
On the Board of Directors of:

- Verona Pharma plc[1], UK, Chairman
- Actimed Therapeutics Ltd., UK, Chairman
- Kyowa Kirin International plc, UK, Chairman
- Interpharma Investments Ltd., British Virgin Islands (until March 31, 2023)

On the Supervisory Board of:

- Synlab AG[1], Germany, Chairman

1 publicly listed

On the Verwaltungsrat (Administrative Board) of:

- Opterion Health AG, Switzerland, Chairman

Dr. Daniela Favoccia
None

Petra Kirchhoff
Positions held within the Group:
None

External positions:
On the Stock Exchange Council (Börsenrat) of:

- The Hanover Stock Exchange of Lower Saxony (Niedersächsiche Börse zu Hannover), Germany

Dietmar Müller
Positions held within the Group:
None

External positions:
Deputy member of the General Assembly of:

- Gesellschaft für Gemeindeentwicklung und Wirtschaftsförderung Gleichen mbH (company for community and business development), Germany

Ilke Hildegard Panzer
None

Frank Riemensperger
Positions held within the Group:
None

External positions:
On the Supervisory Board of:

- DRM Datenraum Mobilität GmbH, Germany
- Drägerwerk Verwaltungs AG, Germany (since May 5, 2023)
- Dräger Safety Verwaltungs AG, Germany (since May 5, 2023)

Hermann Jens Ritzau
None

Prof. Dr. Klaus Rüdiger Trützschler
Positions held within the Group:
None

1 publicly listed

External positions:
On the Supervisory Board of:

- Zwiesel Kristallglas AG, Germany, Chairman (until December 31, 2023)

On the Beirat (Advisory Board) of:

- Odenwald Faserplatten GmbH, Germany (until June 20, 2023)

Sabrina Wirth
Positions held within the Group:
None

External positions:
On the Beirat (Advisory Board) of:

- Investitions- und Förderbank Niedersachsen (NBank), Germany (since April 1, 2023)

Declaration of the Executive Board

We declare to the best of our knowledge that the consolidated financial statements for fiscal 2023 present a true and fair view of the actual net worth, financial situation and profitability of the Group in accordance with the accounting standards used in preparing these statements. We also certify that the progress of the Group's business, including its business performance and its situation, are represented accurately in the Group Management Report in all material respects and present the most important opportunities and risks of the Group's future development during the fiscal year.

Göttingen, February 7, 2024

Sartorius Aktiengesellschaft

The Executive Board

Dr. Joachim Kreuzburg

Dr. René Fáber

Dr. Alexandra Gatzemeyer