

Business Development of Bioprocess Solutions

Strong increase in sales and earnings

Growth driven by all product areas and regions

Expected normalization of demand as of mid-2022

Division sales
€3,326.5m
In constant FX: +15.9%

Order intake
€3,122.7m
In constant FX: -14.0%

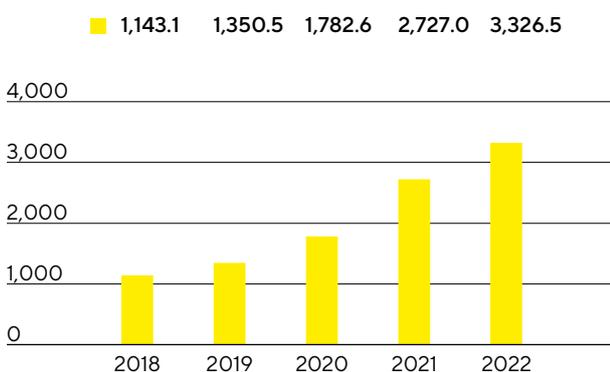
Underlying EBITDA margin
35.7%
-0.5 percentage points



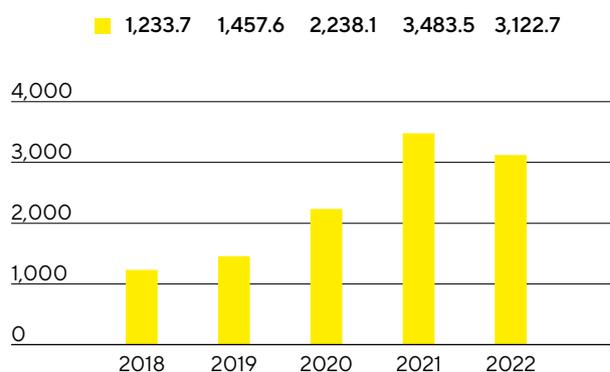
Sales Revenue and Order Intake

Following the exceptionally high growth rates in 2020 and 2021, the Bioprocess Solutions Division again grew at a double-digit rate in the reporting year by 15.9% in constant currencies to €3,326.5million (reported: +22.0%). This includes around 2 percentage points of non-organic growth from acquisitions. All product areas contributed to this good development, while the Covid-19-related business declined significantly compared to the previous year.

Sales Revenue 2018 to 2022
€ in millions



Order Intake 2018 to 2022
€ in millions



Sales Revenue and Order Intake

€ in millions	2022	2021	in % reported	in % cc ¹
Sales revenue	3,326.5	2,727.0	22.0	15.9
Order intake	3,122.7	3,483.5	-10.4	-14.0

¹ In constant currencies

In 2022, the Bioprocess Solutions Division increased its sales revenues in all business regions. In the EMEA region, which accounted for around 38% of the division's sales, revenues increased by 10.6% to €1,260.5million compared with a strong prior-year base. The Americas region again showed particularly strong growth, with an increase of 22.0% to €1,240.8million. The region accounted for 37% of total sales. The Asia|Pacific region, which accounted for 25% of the division's sales, also posted significant double-digit growth of 16.5% to €825.2million. (All growth rates for the regional development are in constant currencies unless otherwise stated.)

As expected, order intake declined year over year against the backdrop of noticeable demand normalization and significantly lower Covid-19-related business, reaching €3,122.7million (in constant currencies: -14.0%; reported: -10.4%). Excluding the Covid-19-related business, order intake would have grown slightly. In the two previous years, the division had recorded exceptionally high growth rates due to changed ordering patterns and strong demand from coronavirus vaccine manufacturers.

Sales by Region

€ in millions	2022	2021	in % reported	in % cc
EMEA	1,260.5	1,130.5	11.5	10.6
Americas	1,240.8	913.1	35.9	22.0
Asia Pacific	825.2	683.5	20.7	16.5

Earnings

Underlying EBITDA of the Bioprocess Solutions Division increased by 20.5% to €1,188.4million. The corresponding margin of 35.7% was close to the high level of the prior-year period of 36.2%. The 2021 margin had been positively influenced by a partially delayed cost development, for example, as a result of deferred new hires in relation to sales revenue growth because of the pandemic and low business travel activity. As planned, these cost positions normalized in 2022 and had a dampening effect on profitability. Price effects on the procurement and customer sides largely offset each other.

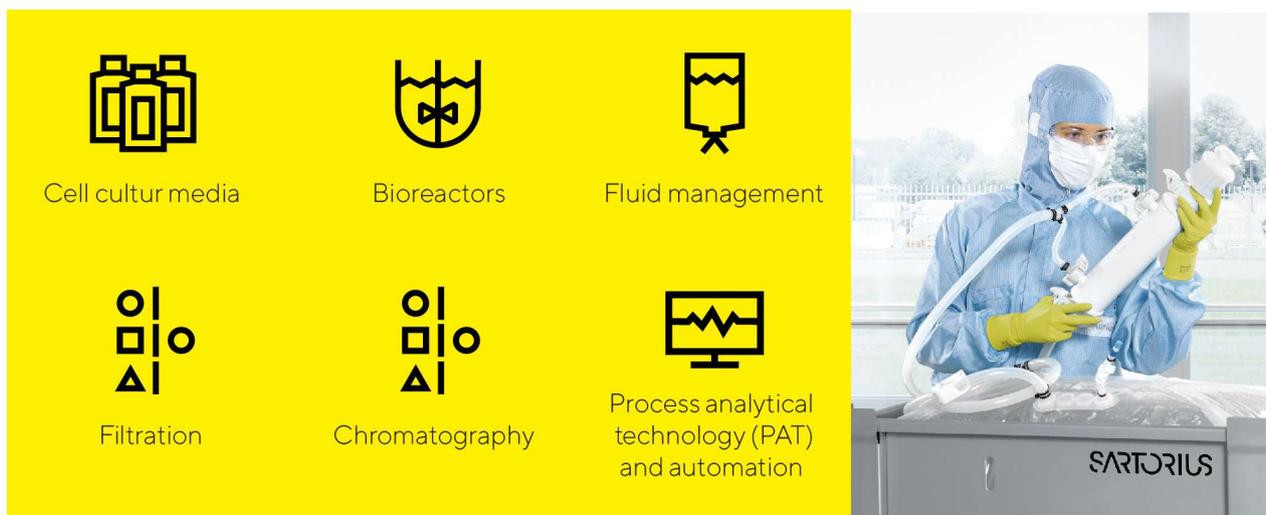
Underlying EBITDA and EBITDA Margin

	2022	2021
Underlying EBITDA in millions of €	1,188.4	986.3
Underlying EBITDA margin in %	35.7	36.2

In the year under review, the Bioprocess Solutions Division recorded extraordinary items of -€46.5million relative to -€32.1million a year earlier. These items predominantly consisted of expenses in connection with the most recent acquisitions as well as for various cross-divisional projects.

Products and Sales

The Bioprocess Solutions Division markets products and services for the entire added-value chain in biopharmaceutical production and preceding process development. The division's portfolio includes cell lines, cell culture media, bioreactors, a wide range of products for separation, purification and concentration, and products and systems for storage and transportation of intermediate and finished biological products.



Sartorius expanded its product portfolio in the Bioprocess Solutions Division by making two acquisitions in 2022:

- By acquiring the business from Novasep in February 2022, Sartorius added a complementary offering to its chromatography portfolio. The acquired portfolio includes chromatography systems primarily suited for small biomolecules such as oligonucleotides, peptides, and insulin, as well as innovative systems for the continuous production of biopharmaceuticals.
- The acquisition of Albumedix, a leading provider of solutions based on recombinant human albumin, completed at the end of September 2022, adds an important component to Sartorius' portfolio in the production of innovative biopharmaceuticals, especially for modalities such as cell therapies, viral therapies, and vaccines.

During 2022, the Bioprocess Solutions Division launched a scalable and ready-to-use disposable membrane for separating monoclonal antibodies as an alternative to classical resin-based column chromatography for the affinity purification step. Furthermore, the division introduced a computer-based application for optimizing cell culture development that enables substantial time and cost savings. The application is part of a cloud-based software ecosystem for analyzing and managing data along the biopharma value chain and makes it possible to maximize insights from in vitro experiments by using simulations in virtual bioreactors.

Sales Activities

The Bioprocess Solutions Division markets its product portfolio directly. Sales activities for key accounts are coordinated and supported by global key account management.

After the gradual lifting of pandemic-related travel and contact restrictions, sales representatives continued to interact directly with many customers using digital communication tools. Video conferencing and

augmented reality continue to be used for such direct interactions, for example, when demonstrating products, conducting training sessions, and bringing systems into service. One focus aimed at strengthening the sales force is on expanding the company's international presence. A further focus is on the ongoing enhancement of sales effectiveness, for example, through specialized training for employees.

Product Development

Development activities at Sartorius essentially focus on technology areas such as membranes, which are the core component of the filter products; various technology platforms, such as single-use containers for fluid management in biopharmaceutical processes and sensors; and control technologies for processes such as fermentation and cell cultivation. Additional focal areas comprise developments in materials and components that include plastics, elastomers, and intelligent polymers; expanded data analysis; and cell line development.

The largest product development site is located in Göttingen, Germany, where a new product development building is scheduled to begin operations in the first quarter of 2023. Further important activities take place in France, India, the USA, and the UK, as well as in Sweden, Israel, Slovenia, and other locations in Germany.

Production and Supply Chain Management

Bioprocess Solutions has a very well developed global production network that was expanded at many sites in 2022. The largest production facilities are located in Germany, France, and Puerto Rico. Beyond these locations, this division also manufactures in the UK., Switzerland, Tunisia, India, the United States, China, Israel, and in Slovenia. Recent acquisitions have added sites in France and the UK.

The supply chain situation remained challenging in 2022, but has eased somewhat overall compared with 2021. Delivery times for most products have normalized, and the availability of electronic components and some chemical raw materials also improved over the course of the year. The prices of many primary products used by Sartorius did increase, however, in some cases significantly.

With regard to its energy supply, the company has taken extensive measures in Germany in order to become as independent as possible from the availability of gas, if necessary.

Sartorius has expanded production capacity in all business regions, such as China, Tunisia, and Puerto Rico. Additional production employees were hired for this purpose.

To meet the growing demand for consumables in China, the expansion of the clean room in Beijing was brought into operation in 2022. This significantly expanded the local production capacity for sterile disposable bags. In addition to bags, the company has recently started producing other types of filters in the expanded clean rooms.

Following the opening of a significantly expanded application, validation, and service center for biopharma customers at the Shanghai site in 2021, the company opened new application centers in Yantai, China, and Bangalore, India, in the reporting year. These enable customers to test complex systems at a Sartorius site first before they are delivered to and set up at their plant facilities.