Our mission

We empower scientists and engineers to simplify and accelerate progress in life science and bioprocessing, enabling the development of new and better therapies and more affordable medicine.

Our vision

We are a magnet and dynamic platform for pioneers and leading experts in our field. We bring creative minds together for a common goal: technological breakthroughs that lead to better health for more people.
Pacesetter for More Than 150 Years

1870  Florenz Sartorius, a 24-year-old, continues to develop a weighing technology that reduces the time for balance beam stabilization, substantially accelerating lab experiments as a result.

1927  A joint venture with Nobel Prize laureate Richard Zsigmondy expands the Sartorius product portfolio to include membrane filters.

Back then as today, our innovative product solutions are helping to accelerate research work, simplify manufacturing processes and improve quality of results.
Sartorius in Brief

60+
Locations worldwide, headquartered in Göttingen, Germany

~14,000
Employees\(^1\)

~€3.45bn
Sales revenue\(^2\)

34.1%
EBITDA margin\(^2,3\)

~€37.4bn
Sartorius AG market capitalization\(^1\);
listed on the DAX and TecDAX

~33%
Sales revenue
Americas

~41%
Sales revenue
EMEA

~26%
Sales revenue
Asia | Pacific

---

1 As of December 31, 2021, 2 FY 2021, 3 Underlying EBITDA
Strong Company Values Are the Basis of All Our Activities

- **Sustainability**: Growing profitably and acting responsibly towards all stakeholders
- **Openness**: Driving change and progress internally and externally
- **Enjoyment**: Working in an energetic and rewarding environment
Strategic Focus on the Biopharma Market

Bioprocess Solutions Division

Molecule development

Cell line and process development

Upstream & downstream production

Quality | Testing | Validation

Lab Products & Services Division
Megatrends in Our Target Markets Offer Strong Growth Opportunities

Growing and aging population

9 billion people by 2050

World population over age 60 in 2050

>2bn

World population over 60 in 2021

~1bn

Biologics are gaining importance

Sales share of biologics in 2026

~37%

Sales share of biologics in 2021

~34%

~10% CAGR for the biopharma market in 2021–2026

What Are Biopharmaceuticals?

**Active agent**
- **Small molecules**
  - Chemical drugs
  - Biopharmaceuticals

**Manufacturing**
- **Chemical synthesis**

**Administration**
- **Mainly oral**
  - Mainly intravenous

**Advantages**
- First-time or improved treatment of serious illnesses, such as cancer, multiple sclerosis, rheumatism
- Targets only diseased cells; fewer side effects
- New vaccines

**Large molecules**
- > 20,000 atoms
  - Cell culture processes with living cells
The Development and Manufacture of Biopharmaceuticals Are Complex
Only One Out of 10,000 New Drug Candidates Reaches the Market

Schematic example of biologic drug discovery with data from the Association of the British Pharmaceutical Industry
The Consequence: Biotech Medications Are Extremely Expensive

HUMIRA®
Annual revenue of ~$20.7 billion; is used to treat rheumatism and other inflammatory autoimmune diseases, such as Crohn’s disease and psoriasis
Manufacturer: Abbvie

Cost per annual treatment
>€20,000 in Germany

Source: Abbvie

First less expensive biosimilars out on the market:
- Imraldi® from Biogen
- Hyrimoz® from Sandoz
- Amgevita® from Amgen

ZOLGENSMA®
Currently the world’s most expensive medical drug; gene therapy used to treat spinal muscular atrophy
Manufacturer: Novartis

Cost per treatment
~$2,000,000 in the U.S.

Source: Novartis
Our Ambition: Reduce Costly Trial & Error in Drug Discovery

Our laboratory tools support researchers ...

... in understanding diseases
... in conducting experiments and evaluating their data
... in identifying the right molecules and developing new medicines
## Our Solution: Technologies to Accelerate Drug Discovery and Development

### Molecule development

<table>
<thead>
<tr>
<th>Identification/validation</th>
<th>Library screening</th>
<th>Lead optimization</th>
<th>Candidate characterization</th>
</tr>
</thead>
</table>

### Cell line development

<table>
<thead>
<tr>
<th>Gene cloning</th>
<th>Cell line selection</th>
<th>Cell line characterization</th>
<th>Cell banking</th>
</tr>
</thead>
</table>

### Key products

- IncuCyte
- iQue
- Octet
- Sartoclear Dynamics
- MyCap

### Supporting products

- Picus NxT
- Cubis
- Microsart
- Centrisart
Our Goal: Simplify Manufacturing of Biopharmaceuticals

Our technologies empower engineers in the biopharma industry to...

... set up robust, flexible and safe processes for industrial production

... reduce setup costs

... enhance product yield
Our Solution: Innovative Technologies for All Phases of Drug Production

Products
Scalable easy-to-use technologies for the production of biopharmaceuticals and digital tools for biopharma data analytics

Application areas
- Biopharmaceutical manufacturing
- Quality control and testing

- Filtration
- Cell culture technology & media
- Fluid management
- Purification
The Widest Offering of Solutions in the Industry

**Upstream**
Production of the desired drug

- Culture media preparation
- Seed cultivation
- Scale-up
- Production
- Clarification & centrifugation

**Downstream**
Isolation and filling of the desired drug

- Final filling
- Cryo-preservation
- Sterile filtration
- Concentration
- Virus removal filtration
- Polishing
- Chromatography
- Viral clearance
Flexible Production Systems Are Becoming More and More Prevalent

Classic stainless steel plants

- High initial investment outlay
- High cleaning effort and expense
- Risk of contamination

Flexible systems with sterile bags

+ Faster setup and lower investment throughout the entire life cycle
+ Lower consumption of water and energy
+ Reduced risk of cross-contamination
Data Analytics Has Huge Potential for the Biopharmaceutical Industry

Sartorius supports its customers in the digitalization and automation of their processes with its leading software for analysis of bioprocess data.

- Enhanced process control and robustness
- Improved product quality
- Predictive process control

- Powerful solutions for modeling and optimizing development and manufacturing
- Helps provide insights derived from complex data sets
Leading Market Positions Worldwide in Both Segments

Fluid management | Fermentation | Filtration | Purification | Lab balances | Microbiological analysis | Lab filtration | Pipettes

#1 | #1 | #3 | #3 | #2 | #2 | #3 | #4
Acquisitions Strengthen and Differentiate the Sartorius Portfolio

Acquired technologies include

- Cell line and process development services
- Automated single-use centrifugation
- Bioprocessing software
- Cell culture media
- Chromatography and tangential flow filtration systems; microcarriers
- Multiple systems for cell and protein analysis
- Multiple solutions for production of cell and gene therapies and vaccines
Sales Revenue Has More Than Doubled Over the Last Five Years

Ø Sales CAGR ~19%
EBITDA Margin¹ +14 Pp

This is Sartorius
Sartorius 2025 Ambition and Initiatives

Strategic initiatives

Regional
- Participate in strong Chinese market growth
- Continue to outperform the important U.S. market

Portfolio
- Add high-impact innovations, e.g., digital tools
- Enhance process development capabilities
- Expand into adjacent applications

Operations
- Accelerate workflows across the organization through digitalization
- Extend manufacturing base in Asia

2025 targets

~€5bn Sales revenue

~34% EBITDA margin

2025 targets are based on 2020 currency exchange rates; EBITDA excluding extraordinary items
Substantial Investments in the Expansion of Global Capacities

Significant CAPEX ratios
CAPEX in millions of €; ratio in %

<table>
<thead>
<tr>
<th>Year</th>
<th>CAPEX (€)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>238</td>
<td>15.2</td>
</tr>
<tr>
<td>2019</td>
<td>226</td>
<td>12.3</td>
</tr>
<tr>
<td>2020</td>
<td>240</td>
<td>10.3</td>
</tr>
<tr>
<td>2021</td>
<td>400</td>
<td>11.8</td>
</tr>
<tr>
<td>2022e</td>
<td>~400</td>
<td>~14</td>
</tr>
</tbody>
</table>

This is Sartorius
Thank you.