This is Sartorius Stedim Biotech

Company Presentation | January 2020
Partner of the biopharmaceutical industry

We empower engineers to simplify and accelerate progress in bioprocessing. In this way, we enable new and better pharmaceuticals to be manufactured and help keep medications affordable.
Sartorius Stedim Biotech in brief

- **35+** Locations worldwide, headquartered in Aubagne, France
- **6,203** Employees
- **~€1,44bn** Sales revenue
- **29.3%** EBITDA margin¹
- **~€15.0bn** Market capitalization²

As of December 31, 2019, according to preliminary figures ¹Underlying EBITDA ²As of January 28, 2020; free float 25.7%
Strong company values as 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
Attractive market environment with strong growth opportunities

- **Favorable demographics**: 9bn people by 2050; >2bn 60 yrs or older
- **Rise of biosimilars**: ~30% CAGR for biosimilar sales 2018–2022
- **Strong R&D pipeline; advances in gene and cell therapy**: >40% share of biologics in the pharma R&D pipeline

~8% CAGR for biopharma market 2018–2025
What are biopharmaceuticals?

<table>
<thead>
<tr>
<th>Chemical drugs</th>
<th>Biopharmaceuticals</th>
<th>Active Agent</th>
<th>Manufacturing</th>
<th>Administration</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small molecules</td>
<td></td>
<td>Chemical synthesis</td>
<td>Mainly oral</td>
<td>• First-time or improved treatment of serious illnesses, such as cancer, multiple sclerosis, rheumatism</td>
</tr>
<tr>
<td>Biopharmaceuticals</td>
<td>Large molecules &gt; 20,000 atoms</td>
<td>Cell culture processes with living cells</td>
<td>Mainly intravenous</td>
<td></td>
<td>• Targets only diseased cells; fewer side effects</td>
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<td></td>
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<td>• New vaccines</td>
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</table>
The manufacture of biopharmaceuticals is complex
The consequence: Biotech medications are extremely expensive

**HUMIRA®**
Annual revenue of $18 billion; is used to treat rheumatism and other inflammatory autoimmune diseases, such as Crohn’s disease and psoriasis
Manufacturer: Abbvie

Cost per annual treatment
€21,300 in Germany

Source: Abbvie

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

Cost per treatment
$2,100,000 in the USA

Source: Novartis

**First biosimilars recently out on the market:**
- Imraldi® from Biogen up to 40% less expensive
- Hyrimoz® from Sandoz around 21% less expensive
- Amgevita® from Amgen about 18% less expensive
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 set-up costs

... enhance the product yield
Our solution: Innovative technologies for all phases of active ingredient production

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

**Application areas**
- Biopharmaceutical manufacturing
- Quality control and testing
The widest offering of solutions in the industry

**Upstream**
Production of the desired drug
- Culture media preparation
- Seed cultivation
- Scale-up
- Production

**Downstream**
Isolation & filling of the desired drug
- Final filling
- Cryo-preservation
- Sterile filtration
- Concentration
- Virus removal filtration
- Polishing
- Viral clearance
- Clarification and centrifugation
Single-use production systems are becoming increasingly prevalent

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

**Single-Use**
- 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

Fluid Management #1

Fermentation #1

Filtration #3
Acquisitions strengthen and differentiate the portfolio

Acquisition criteria

- Portfolio: Complementary products or technologies
- Market position: Either among the Top 3 or unique selling point
- Integration: Management capacity; cultural fit
- Price: Fair valuation; reach Sartorius' profitability level in 2-3 years
Recent investments: Infrastructure prepared for further growth

Aubagne, France
Capacity extension for single-use bag production

Yauco, Puerto Rico
Capacities for bag and filter production doubled

Göttingen, Germany
Expansion of capacities for filter production; new Application Center

Beijing & Shanghai, China
Production of aseptic bags and new center for validation services
Sales revenue more than doubled over the last five years

Sales CAGR  **+17.0%**

EBITDA-margin\(^1\) **+8.4pp**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales revenue</th>
<th>EBITDA(^1) margin in %</th>
</tr>
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<tbody>
<tr>
<td>2011</td>
<td>€20.9</td>
<td>+10.3%</td>
</tr>
<tr>
<td>2012</td>
<td>€21.5</td>
<td>+10.8%</td>
</tr>
<tr>
<td>2013</td>
<td>€23.0</td>
<td>+15.9%</td>
</tr>
<tr>
<td>2014</td>
<td>€23.5</td>
<td>+19.4%</td>
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<tr>
<td>2015</td>
<td>€26.2</td>
<td>+20.4%</td>
</tr>
<tr>
<td>2016</td>
<td>€27.5</td>
<td>+4.1%</td>
</tr>
<tr>
<td>2017</td>
<td>€27.3</td>
<td>+13.7%</td>
</tr>
<tr>
<td>2018</td>
<td>€28.2</td>
<td>+17.0%</td>
</tr>
<tr>
<td>2019</td>
<td>€29.3</td>
<td>+11%–14%</td>
</tr>
<tr>
<td>2020e</td>
<td>~€29.5</td>
<td>~30.0</td>
</tr>
<tr>
<td>2025e</td>
<td>~€30.0</td>
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</tbody>
</table>

Sales growth and CAGR 2011 – 2019 in constant currencies; 2019 preliminary figures as of December 31, 2019 \(^1\) Excluding extraordinary items
Thank you very much for your attention