Simplifying Progress

This is Sartorius

Company Presentation | 2021

SARTORIUS

Partner of life science research and the biopharmaceutical industry

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

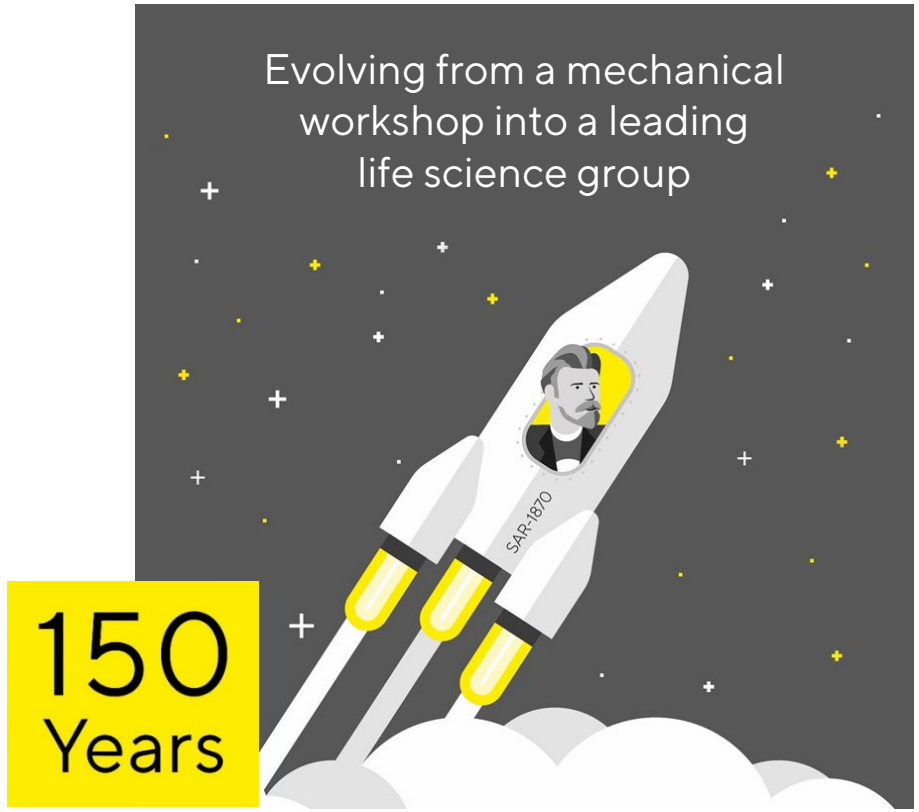
We are a magnet and dynamic platform for pioneers and leading experts in our field. We bring creative minds together for a common goal: technological breakthroughs that lead to better health for more people.

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

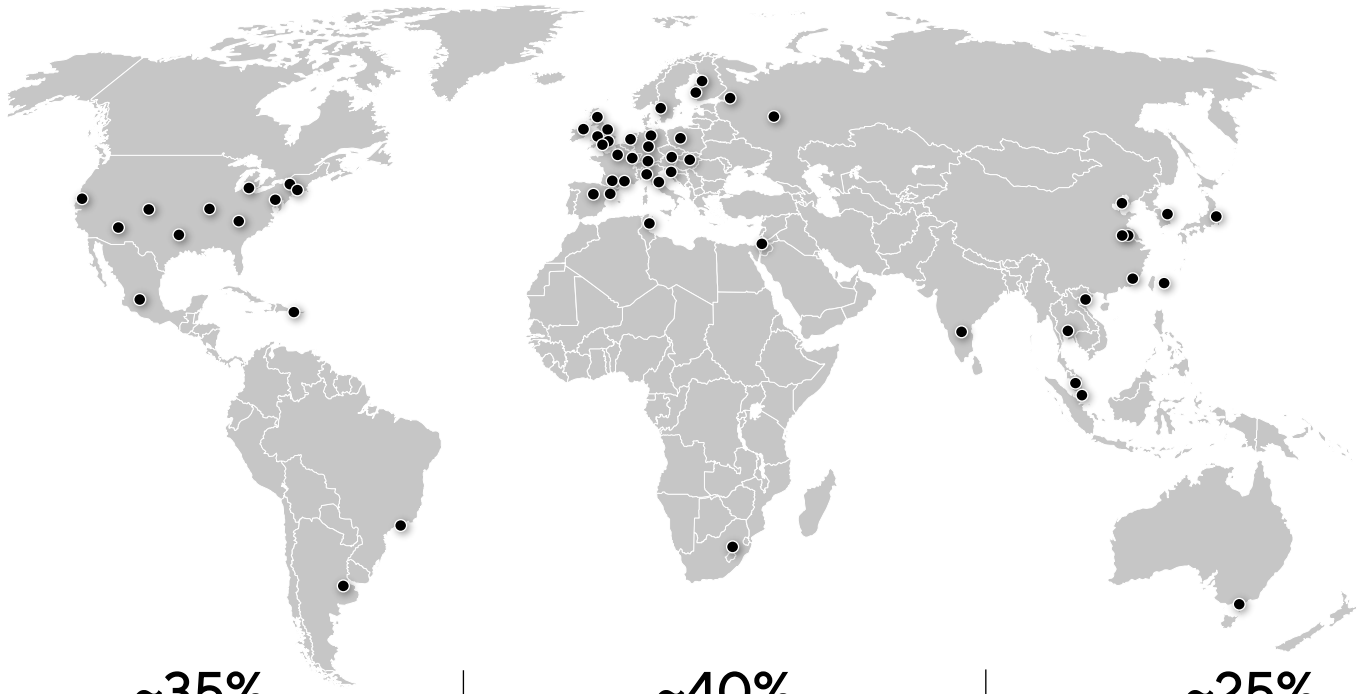
60+
Locations worldwide,
headquartered in Göttingen, Germany

10,600+
Employees[1]

~€2.3bn
Sales revenue[1]

29.6%
EBITDA margin[1,2]

~€23.6bn
Sartorius AG market capitalization;
included in relevant indices in Germany



~35%
Sales revenue
Americas

~40%
Sales revenue
EMEA

~25%
Sales revenue
Asia | Pacific

1 As of December 31, 2020, 2 Underlying EBITDA

Strong company values are the basis of all our activities

Sustainability

Growing profitably and acting responsibly towards all stakeholders

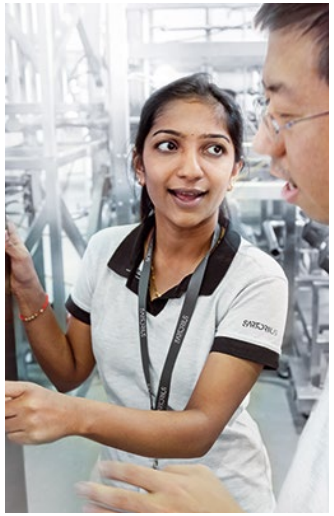
Openness

Driving change and progress internally and externally

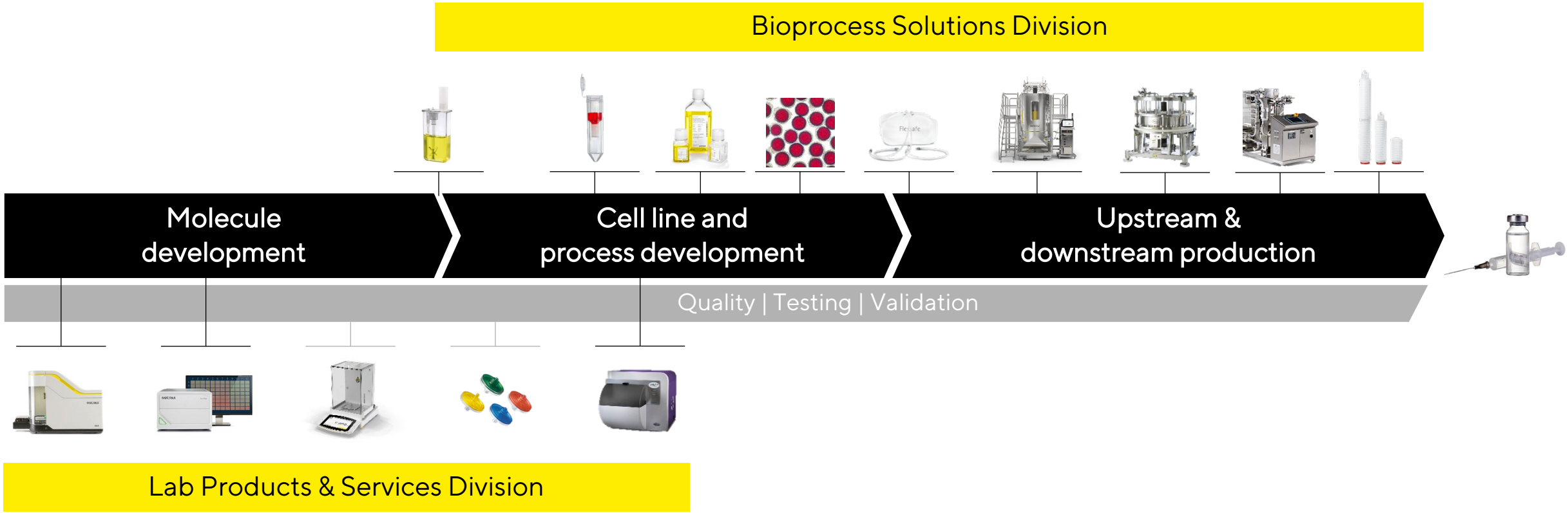
Enjoyment

Working in an energetic and rewarding environment




Strategic focus on the biopharma market



Attractive market environment with strong growth opportunities

Favorable demographics	~9bn people by 2050; >2bn 60 years or older
Rise of biosimilars	~30% CAGR for biosimilar sales in 2020–2025
Strong R&D pipeline; advances in gene and cell therapy	>40% share of biologics in the pharma R&D pipeline

~10% CAGR for biopharma market 2020–2025

What are biopharmaceuticals?

	Active agent	Manufacturing	Administration
Chemical drugs	 Small molecules	 Chemical synthesis	 Mainly oral
Biopharmaceuticals	 Large molecules > 20,000 atoms	 Cell culture processes with living cells	 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

Our products are widely used in the development and production of biologics against COVID-19

200+ companies developing coronavirus vaccines

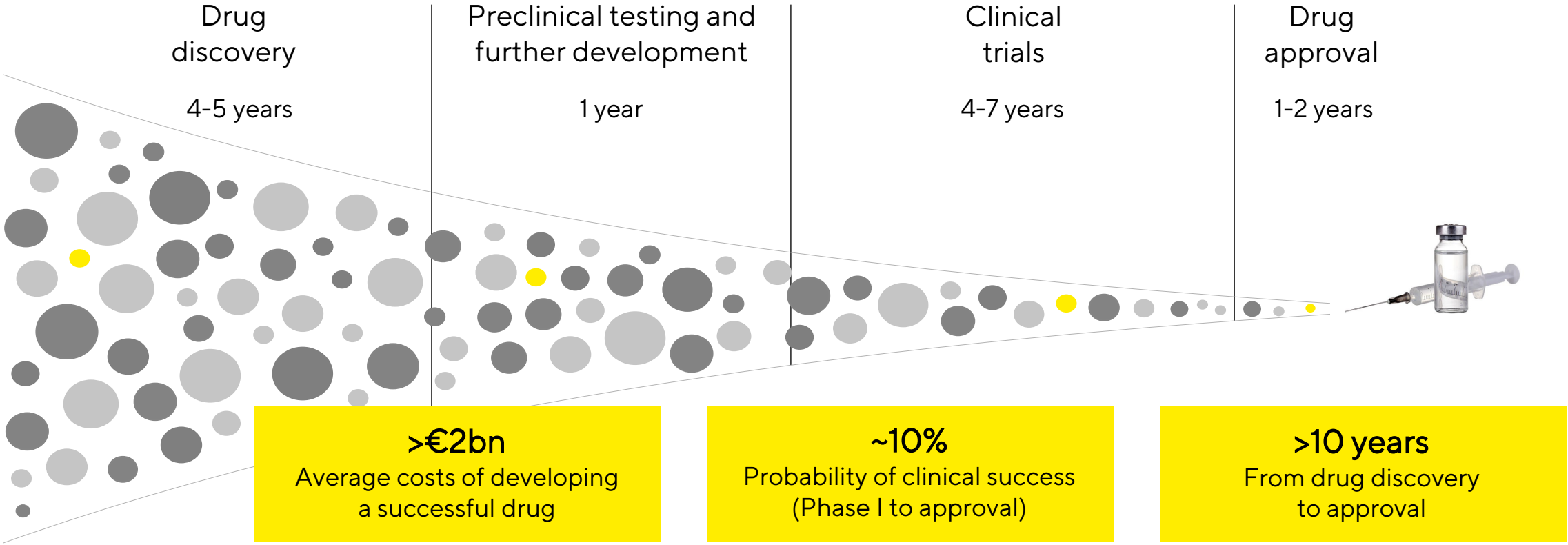
The majority work with Sartorius products

Pandemic crisis with significantly different effects

- High demand related to the development and production of vaccines and therapeutics against COVID-19; consequences from delays in other clinical trials not clear yet
- Impact by softer macroeconomic environment; positive effects on products that are used for testing

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 $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

First biosimilars 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

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 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 → **Cell line development**

Identification / validation → Library screening → Lead optimization → Candidate characterization

Gene cloning → Cell line selection → Cell line characterization → Cell banking

Key products

IncuCyte

iQue

Octet

Sartoclear Dynamics

MyCap

Supporting products

Picus NxT

Cubis

Microsart

Centrisart

SARTORIUS

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

Application areas

- Biopharmaceutical manufacturing
- Quality control and testing

Filtration

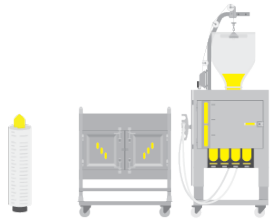
Cell culture technology & media

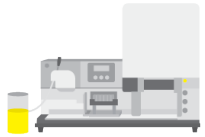
Fluid management

Purification

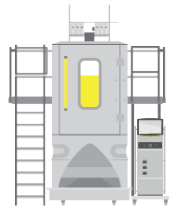
The widest offering of solutions in the industry

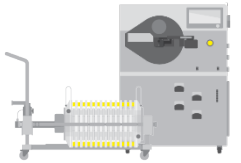
Upstream
Production of the desired drug


Culture media preparation

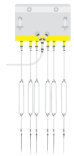

Seed cultivation


Scale-up


Production

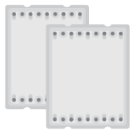

Clarification & centrifugation

Downstream
Isolation and filling of the desired drug

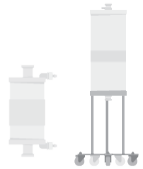

Final filling

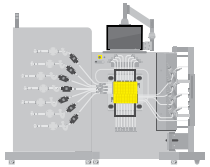

Cryo-preservation

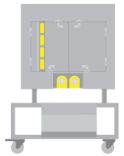

Sterile filtration


Concen-tration

Virus removal filtration


Polishing


Chromato-graphy


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

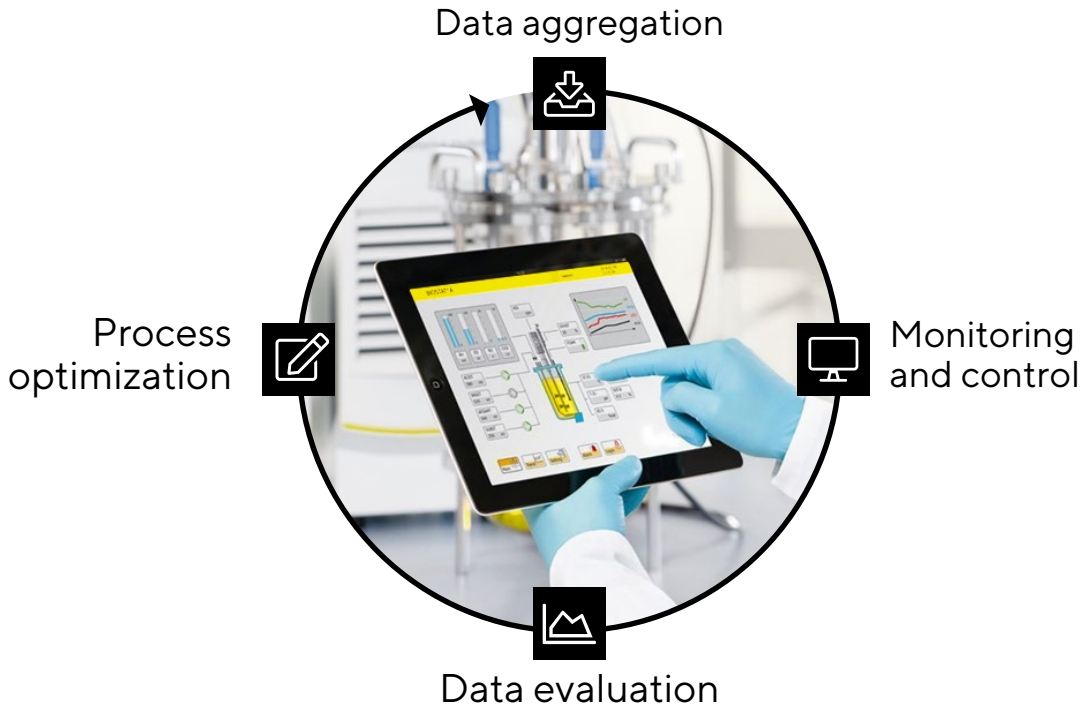
- \+ Faster setup and lower investment throughout the entire life cycle
- \+ Lower consumption of water and energy
- \+ Reduced risk of cross-contamination

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

#1

Fermentation

#1

Filtration

#3

Purification

#3

Lab balances

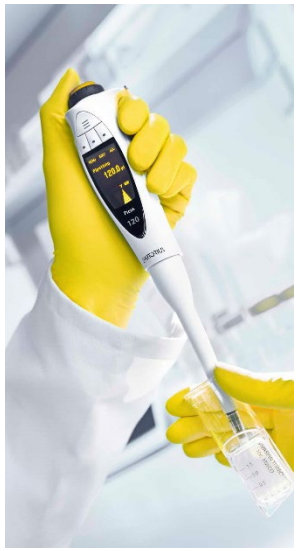
#2

Microbiological analysis

#2

Lab filtration

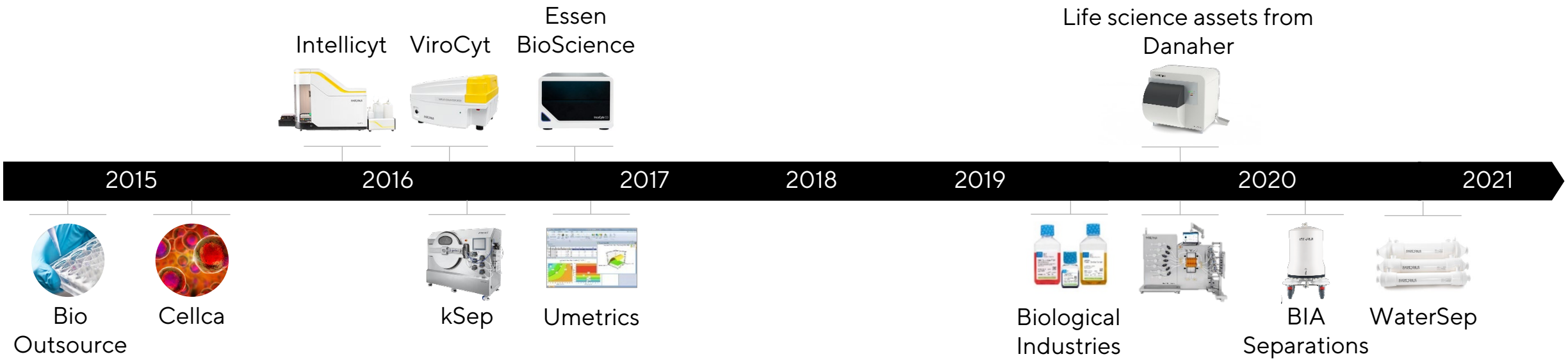
#3



Pipettes

#4

Acquisitions strengthen and differentiate the Sartorius portfolio

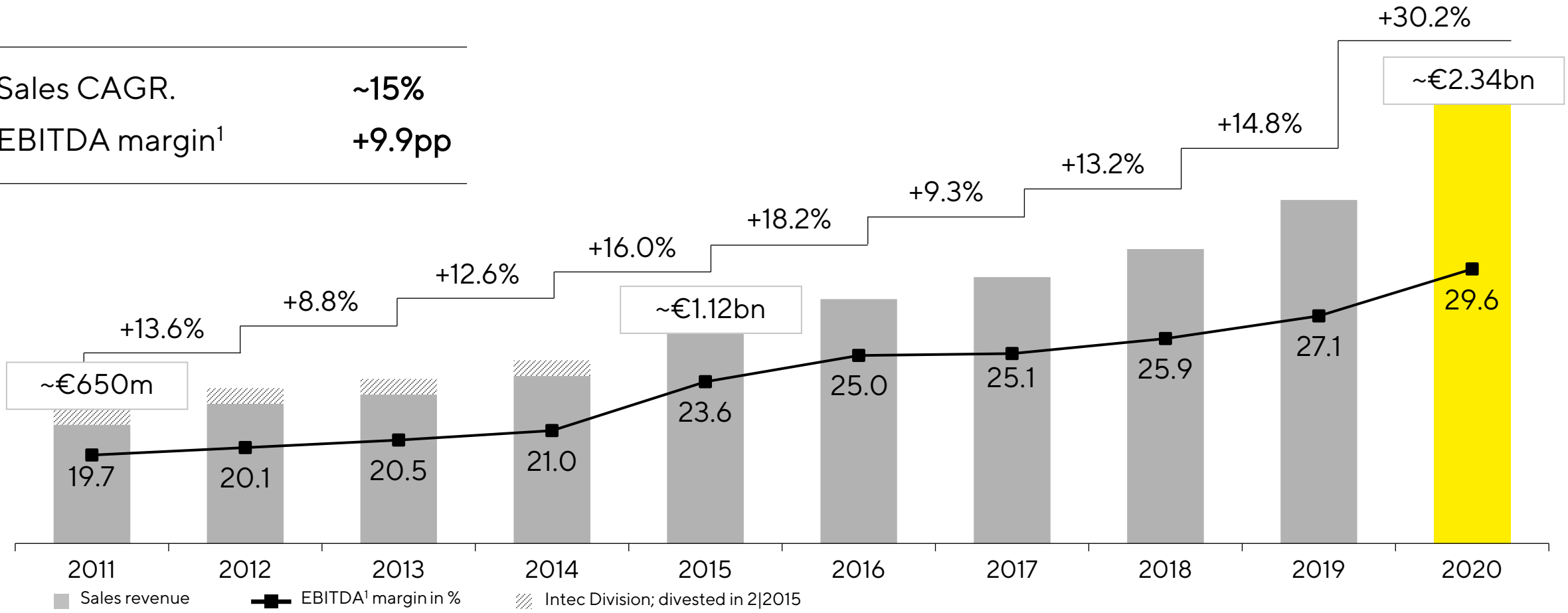


Acquired technologies include

- Automated multi-parallel microbioreactor
- Aseptic single-use sampling system
- 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

Sales revenue has doubled over the last five years

Sales CAGR.	**~15%**
EBITDA margin[1]	**+9.9pp**



Sales growth and CAGR 2011-20 for continued operations, in constant currencies; 1 Excluding extraordinary items

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

~ 32%

EBITDA margin

2025 targets are based on 2017 currency exchange rates; non-organic sales growth is taken into account for companies acquired from 2018 onwards; EBITDA excluding extraordinary items;

Expansion of production capacities will be significantly accelerated and extended

Guxhagen, Germany
Capacity expansion for bioreactors and other equipment for the production of biopharmaceuticals; integration of a Customer Interaction Center

Göttingen, Germany
New facility for membrane production; 12,000 m² extension for existing R&D capacities

Marlborough, MA, USA
New Customer Interaction Center

Yauco, Puerto Rico
Buildup of cell culture media production; expansion of membrane, filter and bag manufacture in Yauco

Beijing, China
New cleanroom for bag production; more space for filter manufacture; new Customer Interaction Center

Songdo, South Korea
Construction of a new 25,000 m² site for cell culture media production, laboratories and application center

Thank you.