

Simplifying Progress

Welcome to Sartorius

February 2024

SARTORIUS

Our ambition: Better health for more people

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.

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.




Sartorius in 2023 numbers

~€3,4bn	Sales revenue	
28.3%	Profit margin ¹	

14,500+	Employees	
60+	Locations worldwide	
150+	Years of experience	

¹ Underlying EBITDA margin



~€560mn	Investments in capacities	
2045	Target for climate neutrality	

14,500 employees united by strong values

Sustainability

Growing profitably and acting responsibly towards all stakeholders



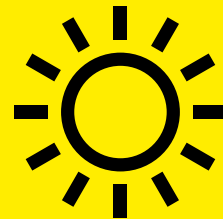
Openness

Driving change and progress internally and externally



Enjoyment

Working in an energetic and rewarding environment



113

Nationalities

54%

Younger than 40 years

39%

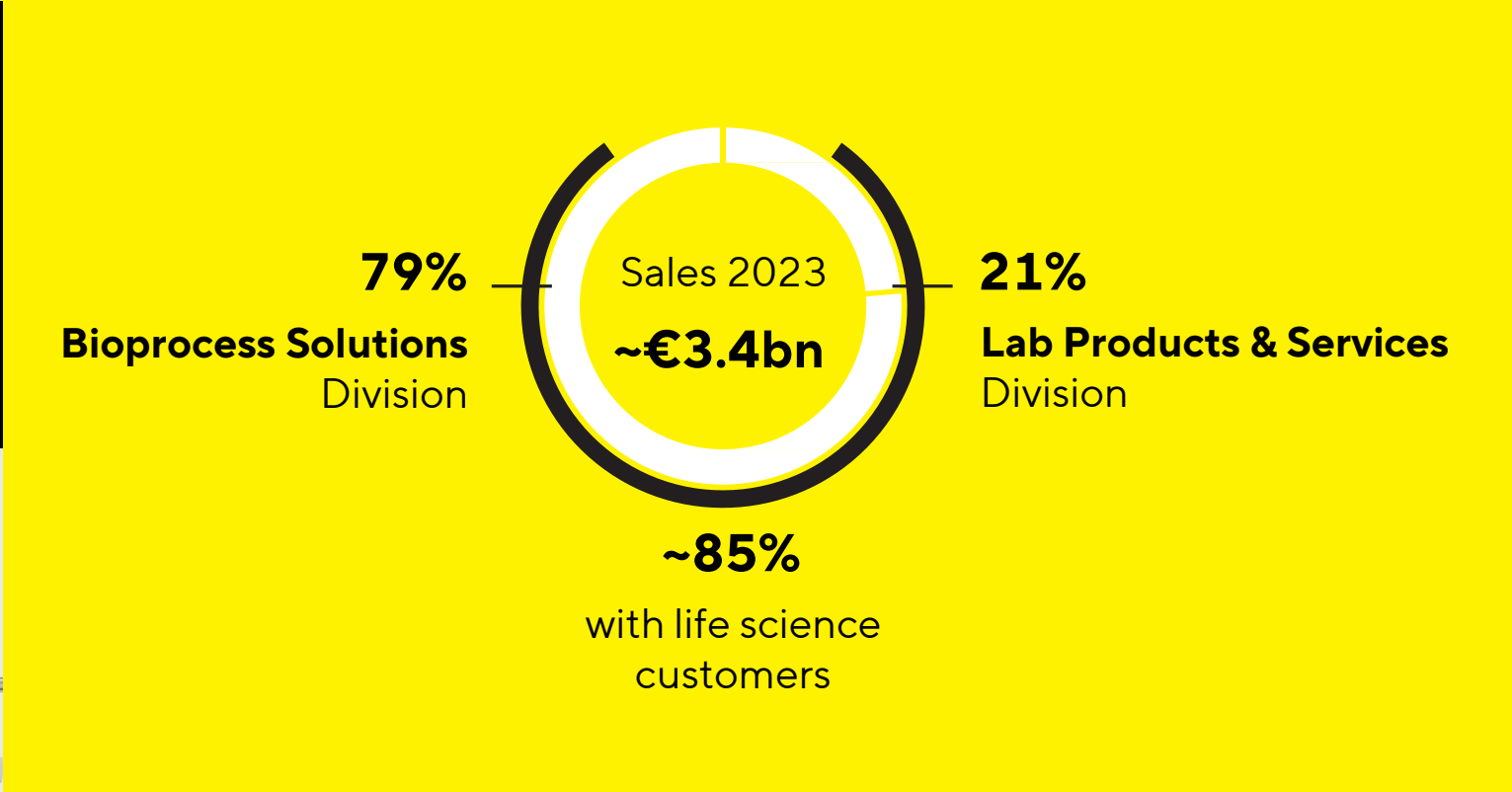
Women

55%

Joined since 2019

Two divisions with a clear focus on the life science industry

Offers a wide array of innovative technologies for the manufacture of biopharmaceuticals and vaccines as well as cell and gene therapeutics



Specializes in equipment and technologies for life science research and pharmaceutical laboratories

Enabling the discovery and production of biopharmaceuticals

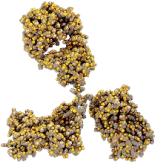
Bioprocess Solutions Division



Lab Products & Services Division

The promises of biologics: From established to new concepts

What are biopharmaceuticals?



Consist of complex molecules



Obtained from living cells in cell culture processes

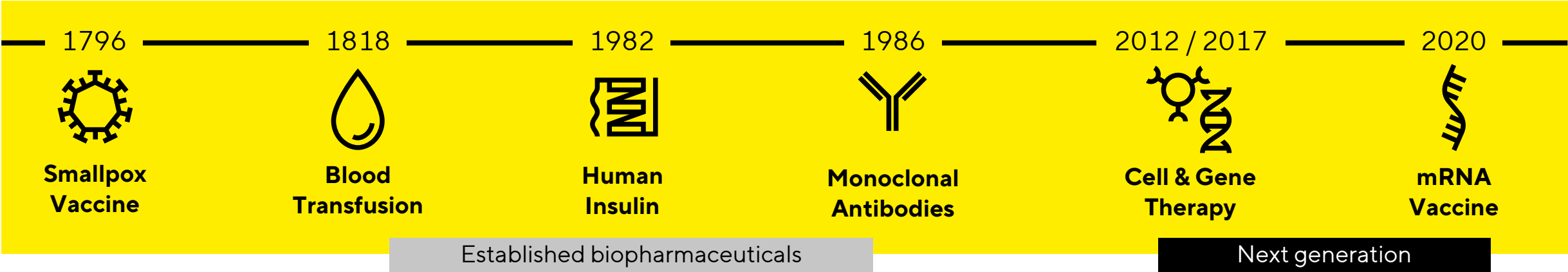


Administered mainly intravenous



Advantages

- Target only diseased cells
- Have fewer side effects
- Allow first-time or improved treatment of illnesses, e.g. cancer, multiple sclerosis, rheumatism



Many biotech medications are highly effective, but very expensive

Rheumatism

Monoclonal antibodies



~€12,000

Annual cost of treatment in GER

Blood cancer

CAR-T cell therapy



~€280,000

Cost per treatment in Europe

Hemophilia

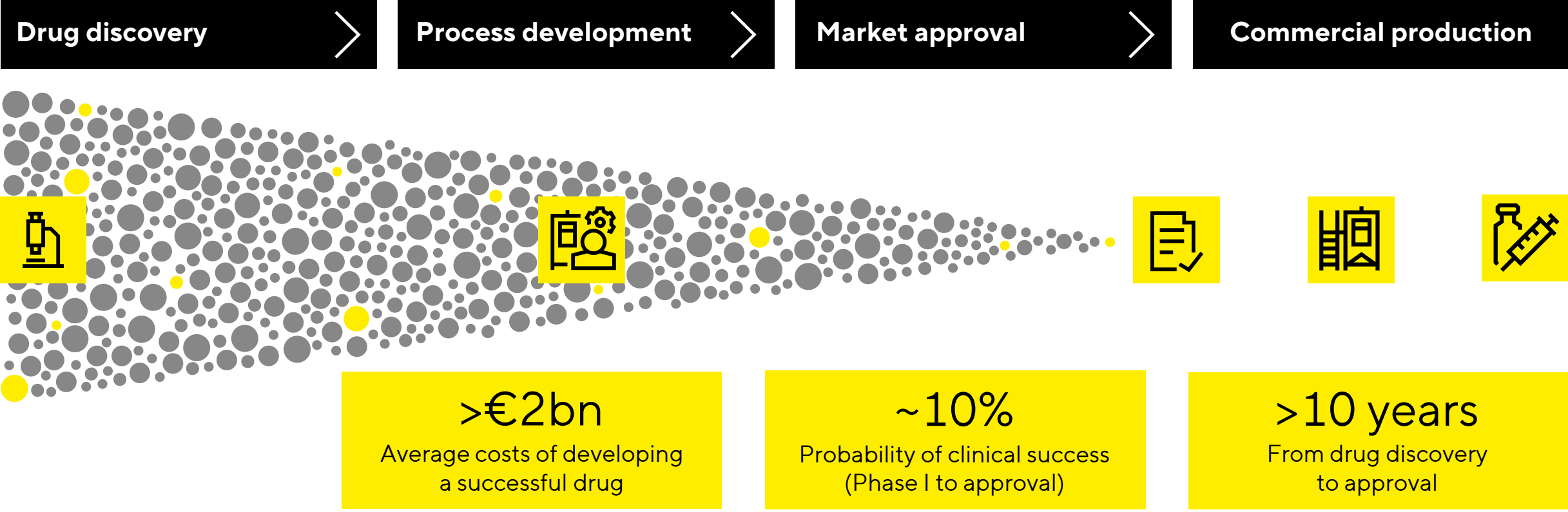
Gene therapy



~\$3.5mn

Cost per treatment in the USA


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

Helping researchers in the labs to accelerate drug discovery

 Our ambition
Reduce costly trial & error

 Our solutions
Powerful bioanalytical tools and lab essentials



- Understand diseases**
- Conduct experiments**
- Make better use of data**
- Identify molecules**
- Develop new drugs**



Live cell analysis



Cell characterization



Protein analysis



Cell selection



Pipetting



Weighing



Filtration



Water purification

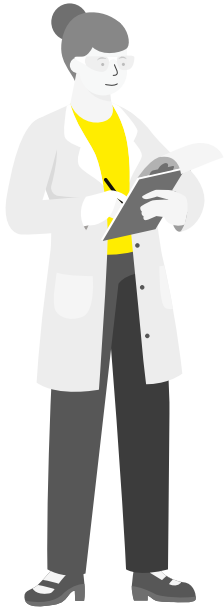
Once discovered also the manufacture of biologics remains complex



Providing technologies to increase productivity in bioprocessing

 Our ambition
More efficient bioprocessing

 Our solutions
Technologies for all phases of drug manufacturing



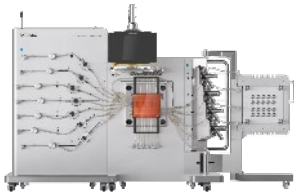
- Set up safe and flexible processes**
- Increase resource and material efficiency**
- Reduce investments**
- Enhance product yield**



Media & reagents



Bioreactors & fermenters



Chromatography



Filtration



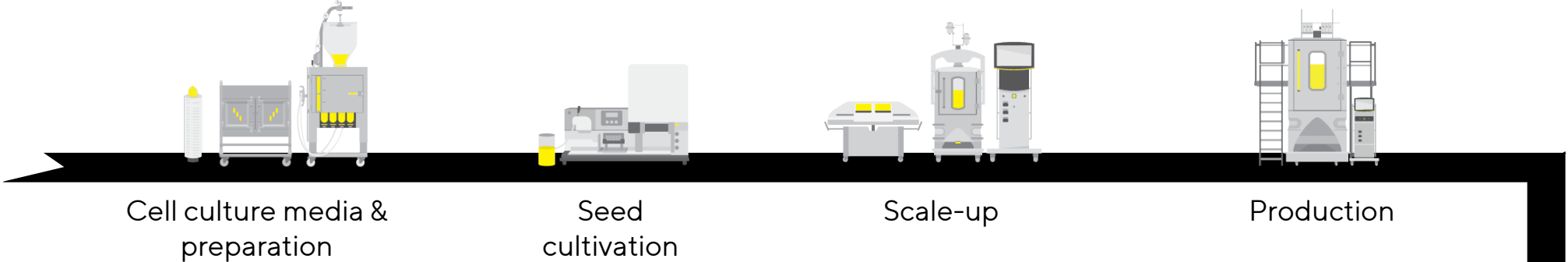
Fluid management



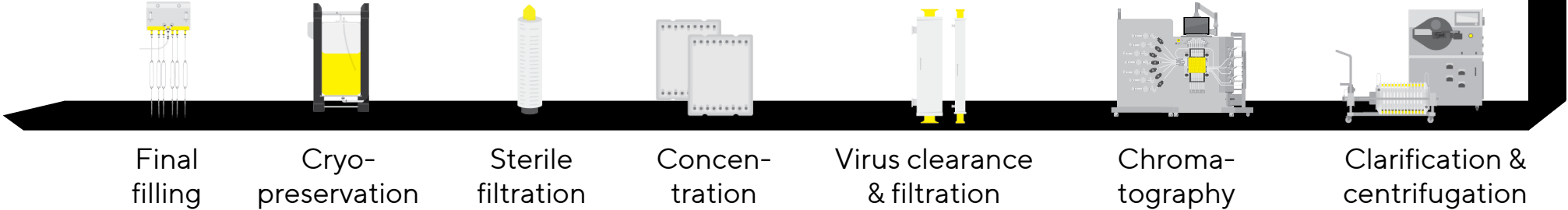
Data analysis

Offering integrated end-to-end manufacturing solutions

Upstream
Production of the desired drug




Downstream
Isolation and filling of the desired drug



Helping customers to reduce their environmental footprint



Single-use technologies



Process intensification




Data analytics



- No water-/energy-intensive cleaning
- Less cleanroom space, less energy usage
- Higher yields



Cell and gene therapies: New modalities, new challenges



Next generation biopharmaceuticals

Viral Vectors	mRNA	Stem Cells
Exosomes	DNA	New Vaccines

6,000+
~60

Innovative treatments for patients

Candidates in development¹

Approved therapies worldwide

¹ GlobalData, October 2023, CGT = Cell & Gene Therapies

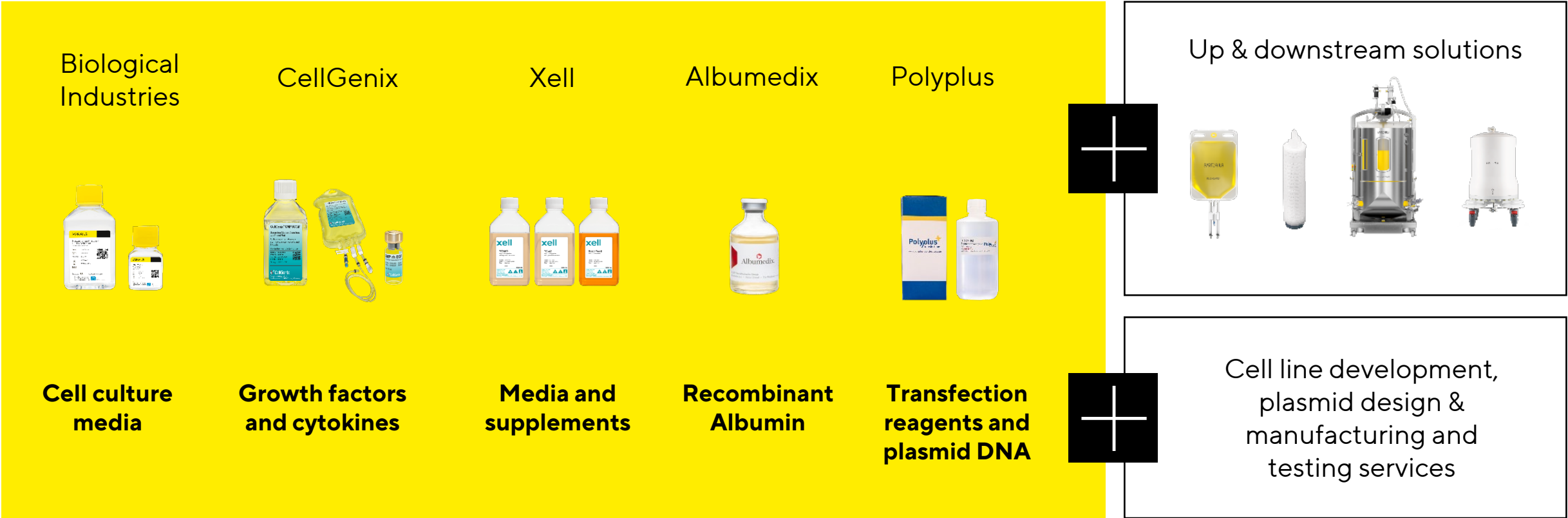


Enabling CGT: High need for innovation

- + **Robustness of production process**
- + **Yields, productivity, cost-per-dose**
- + **Time-to-market**
- + **Regulation under development**
- + **Manufacturing close to patients**



Creating a technology platform for cell and gene therapy applications



How we innovate



Own Product Development

in areas of core competencies

Separation

Cell cultivation technologies

Lab analysis

Automation



Acquisitions

of complementary technologies

Media & reagents

Chromatography

Bioanalytical instruments



Cooperations

with partners leading in their fields

Nanoparticles

Bioprinting

Artificial intelligence

Cell models

Recent focus; selected projects

Resilient global setup, well prepared for further growth


Customer proximity


Redundant capacity


Operational excellence


Global resilience



Ann Arbor, Michigan, USA
Bioanalytical products & services



Songdo, South Korea
Media, bags, filtration, labs, training



Freiburg, Germany
Cell culture components



Göttingen, Germany
Filter production, product development




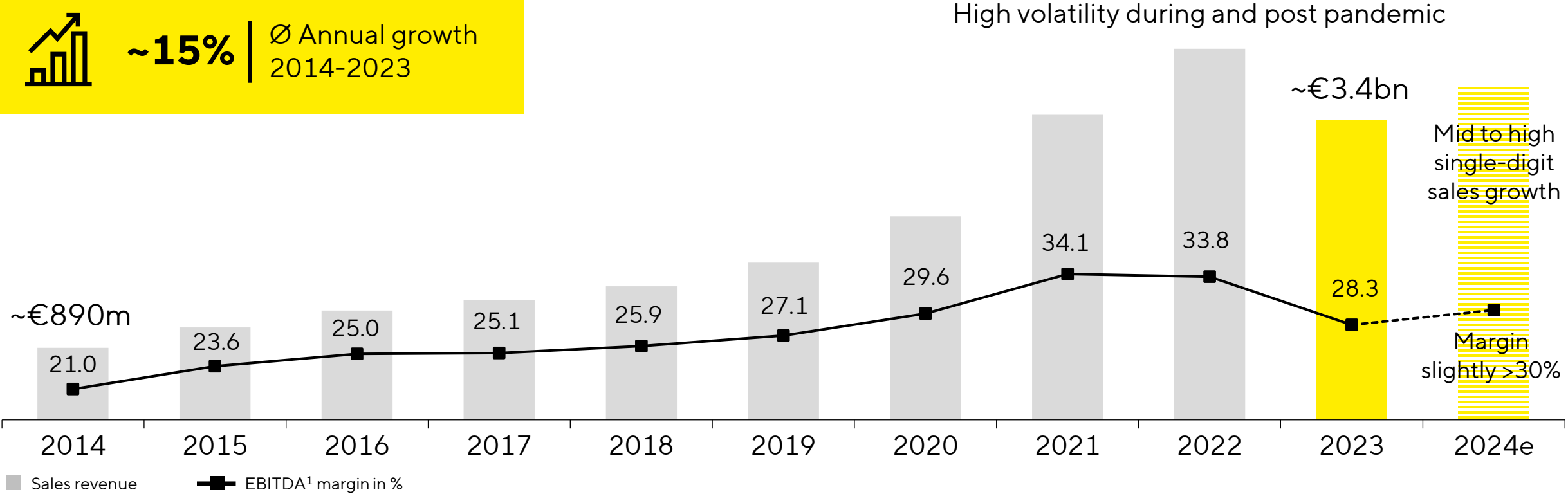
Aubagne, France
Clean rooms, product development, labs

 **~€500 mn**
Planned investment
2024

Expansion of production & R&D capacities; selected current projects


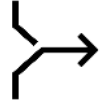


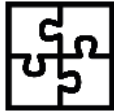




Strong financial track record; profitable growth expected for 2024


~15% | Ø Annual growth 2014-2023



Sales CAGR for continued operations, in constant currencies; EBITDA margin excluding extraordinary items

Ambitious midterm targets backed by strong market fundamentals

 <p>Growing and aging world population</p>	 <p>Clear strategy</p>	 <p>Ambition to 2028</p> <p>Low double-digit avg. annual sales growth¹</p> <p>~34% Underlying EBITDA margin</p>
 <p>Expanding market for biopharmaceuticals incl. biosimilars</p>	 <p>Competitive, integrated product portfolio</p>	
 <p>Dynamic market segment of novel therapies</p>	 <p>Strong, customer-focused team</p>	
 <p>High need for innovation</p>	 <p>Powerful and resilient production and R&D infrastructure</p>	

¹ Thereof around a fifth through acquisitions

Broad and ambitious sustainability agenda in implementation

2030 mid-term targets

~10% av. reduction of CO ₂ eq emission intensity p.a. (Scopes 1-3)	Zero avoidable ¹ emissions in Scopes 1 and 2	100% electricity from renewable sources
>75% revenue with products designed according to circularity principles ²	Zero operational waste to landfill	35 av. annual Employee Net Promoter Score

2045 long-term target

Net-zero emissions

Decarbonization of the entire supply chain in collaboration with suppliers and customers



1 Process emissions from membrane manufacturing are currently considered unavoidable based on available technology, 2 Including product and transport packaging

Simplifying Progress

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