

A male scientist with dark hair, wearing safety glasses and a white lab coat over a blue shirt, is focused on adjusting a complex piece of scientific equipment. He is wearing blue nitrile gloves. The equipment has various wires and components. The background is a bright, clean laboratory setting.

capital Markets Day 2022

Meet Group Management



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strategy update

Belén Garijo, CEO



Agenda

- 01 FOCUS ON growth
- 02 Leveraging the business Model
- 03 outlook & Executive summary















01

FOCUS ON growth



Group

Uniquely positioned portfolio in fast-growing markets

End markets ¹	Focus market areas ¹	BIG3
 Global life science industry ~5% to 7%	 Biologics >10% CDMO >10%	 PS  LSS
 Global pharma industry ~3% to 6%	 Oncology ~9% to 12% Neurology ~7% to 9%	 New HC Products
 Global electronics industry ~4% to 5%	 Semiconductor materials ~5% to 7%	 Semi Solutions

Mid-term growth rates



Sustainable growth: building on distinct megatrends, diversification and low volatility

6 ¹Company estimates of mid-term growth outlook based on industry forecasts and reports from public research institutes (e.g. IMF, IQVIA, Evaluate Pharma/EphMRA, Prismark, etc.)



Group

Three innovative sectors serving patient and customer needs



Life Science
Diversified industry leader

Process Solutions

Leading product portfolio for bioprocessing, novel templates, chemicals, and formulation materials serving biopharma customers

Life Science Services

Leading contract testing organization and emerging CDMO offering focused end-to-end services across multiple modalities

Science and Lab Solutions

One of the industry’s broadest portfolios of consumables for R&D and testing across diverse, attractive customer segments



Healthcare
Global specialty innovator

Oncology

Focused leadership in SCCHN, mUC and mCRC. R&D focus on xevinapant in Ph3, DNA damage response and ADCs

Neurology & Immunology

High-efficacy and platform therapies in MS, potentially first-in-class BTKi treatment in Ph3. Advancing innovation in SLE, CLE, gMG

Fertility

Broad portfolio of treatment options, devices and advanced fertility technologies

CM&E *Cardiovascular, Metabolism & Endocrinology*
>90m patients using our medicines for diabetes, thyroid, cardiovascular diseases



Electronics
Leading player

Semiconductor Solutions

Integrated innovation leader with one of the strongest portfolios of materials and related equipment and services.

Supplying every player in the semi industry. Helping customers create NextGen, faster, smaller and more energy-efficient devices.

Display Solutions

Innovative materials for light switching and modulation as well as for new technologies such as augmented & virtual reality

Surface Solutions

Pigments and active ingredients for automotive, cosmetic & industrial markets

Share of net sales ¹	46%	36%	18%
Share EBITDA pre ¹	50%	33%	17%

7 ¹Based on FY21 Group EBITDA pre excluding Corporate&Others
 Acronyms: SCCHN=Squamous Cell Carcinoma of Head and Neck; mUC=metastatic Urothelial Carcinoma; mCRC=metastatic Colorectal Cancer; ADC=Antibody-Drug Conjugates; Ph3=Phase 3; MS=Multiple Sclerosis; BTKi=Bruton Tyrosine Kinase inhibitors; SLE=Systemic Lupus Erythematosus; CLE=Cutaneous Lupus Erythematosus; gMG=generalized Myasthenia Gravis



Group

On track to deliver on our strategic promises

status: on track



Introduced >€1 bn organic sales growth p.a., ~80% from BIG3

2022 guidance for 6-9% org. sales growth well ahead



Significant step-up in CAPEX towards ~€2 bn p.a. by 2023

2022 guidance for €1.6 – 1.7 bn supportive



Improve according to our sustainability targets

KPIs on improvement of human progress, sustainable value chains and ecological footprint established and on track



Strengthen core and expand in high-growth segments

Network & capacity expansion (e.g. Cork, Molsheim, Wuxi), new operating model and Exelead acquisition



Focused leadership

Xevinapant well on track, Bavencio SoC in mUC, evobrutinib with first in class potential, new event driven trial design



Capacity expansion in sync to customers' investments

Smart localization of footprint to further boost customer proximity & ensure supply stability (e.g. U.S., Korea & China)



Group

BIG3 represent Company's growth drivers, even stronger now



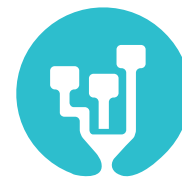
process solutions + life science services¹

- Leading product offering for pharma manufacturing
- Fully integrated multi-modality CDMO



new healthcare products

- Focused leadership positions in Oncology, Neurology and Immunology
- Evobrutinib and xevinapant promising late-stage opportunities
- Industry leading portfolio in DNA biology



semiconductor solutions

- One of the strongest portfolios in the industry
- Providing solutions to enable semi industry growth and innovation across applications

Accelerating growth



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02

Leveraging the business Model



Group

What sets Group apart - insights into the Strategic Framework

I. Foundation

Strongly resilient and diversified business model. The foundation is key for our strategy with strong cash generation



New Strategic Framework introduced at CMD'21

II. Direction

Efficient growth of BIG3, further leveraged by M&A

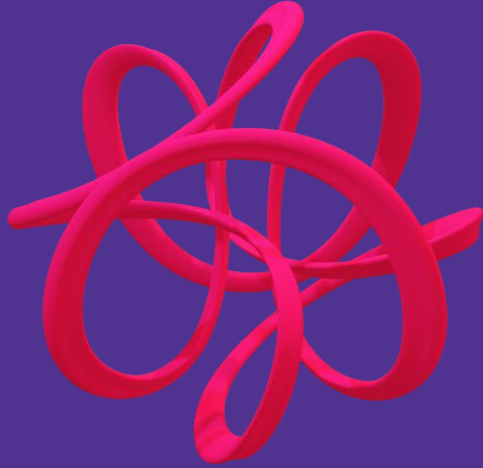
III. Our DNA

Long-term focus driving innovation power. Reinforced by significant sustainability effort



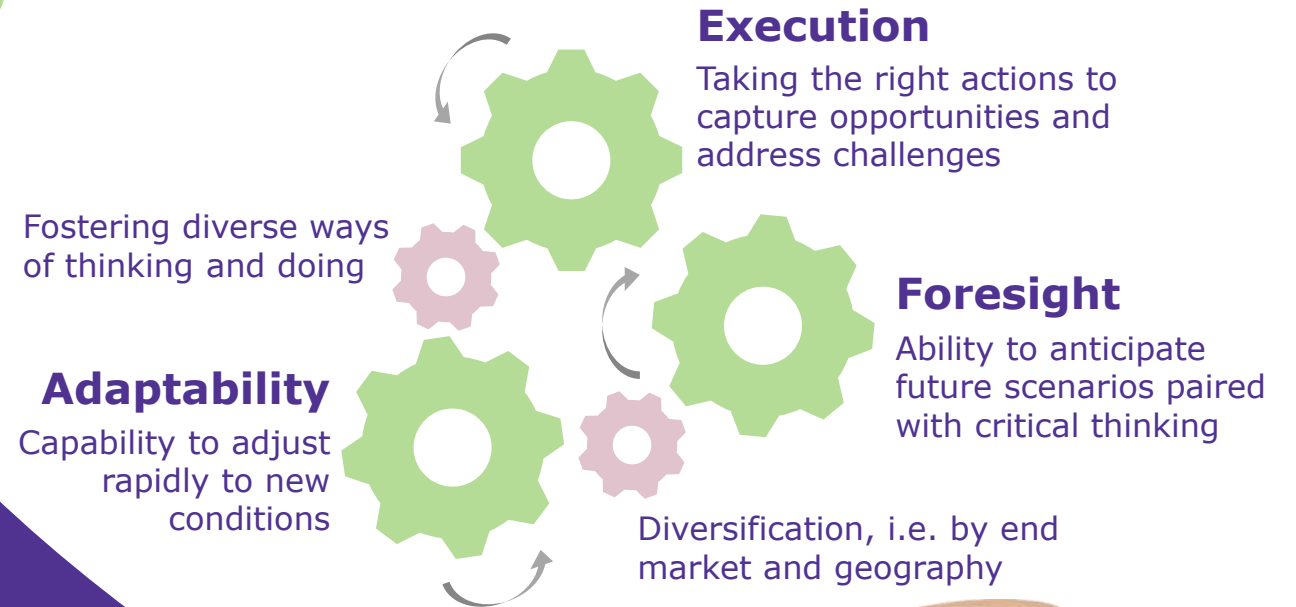
Group

Unprecedented times reveal truly resilient business models



- Risk of a global recession
- Major interest rate hike cycle ahead
- Supply chains under strain, labor shortages
- Above-average inflation across markets
- Globalization impacted by a shifting world order
- Increasing challenges from climate change, societal demands

Resilience = Capacity to thrive in altered circumstances



Group

Holistic approach to resilience - backbone for sustainable growth



	Leading	Strong	Foundational	Lagging behind
Peer group specific	Strong balance sheet and sufficient cash reserves	✓		
	Low business cyclicality		✓	
	Lower fixed cost exposure		✓	
	Diversified customer allocation	✓		
	Supply chain operations		✓	
	Diversified manufacturing		✓	
Holistic	Demand robustness in economic downturn scenario	✓		
	Inflation adaptability		✓	
	High entry barriers	✓		

In-depth analysis across all Enterprise Units revealed Group as **strongly resilient**, building on a solid foundation

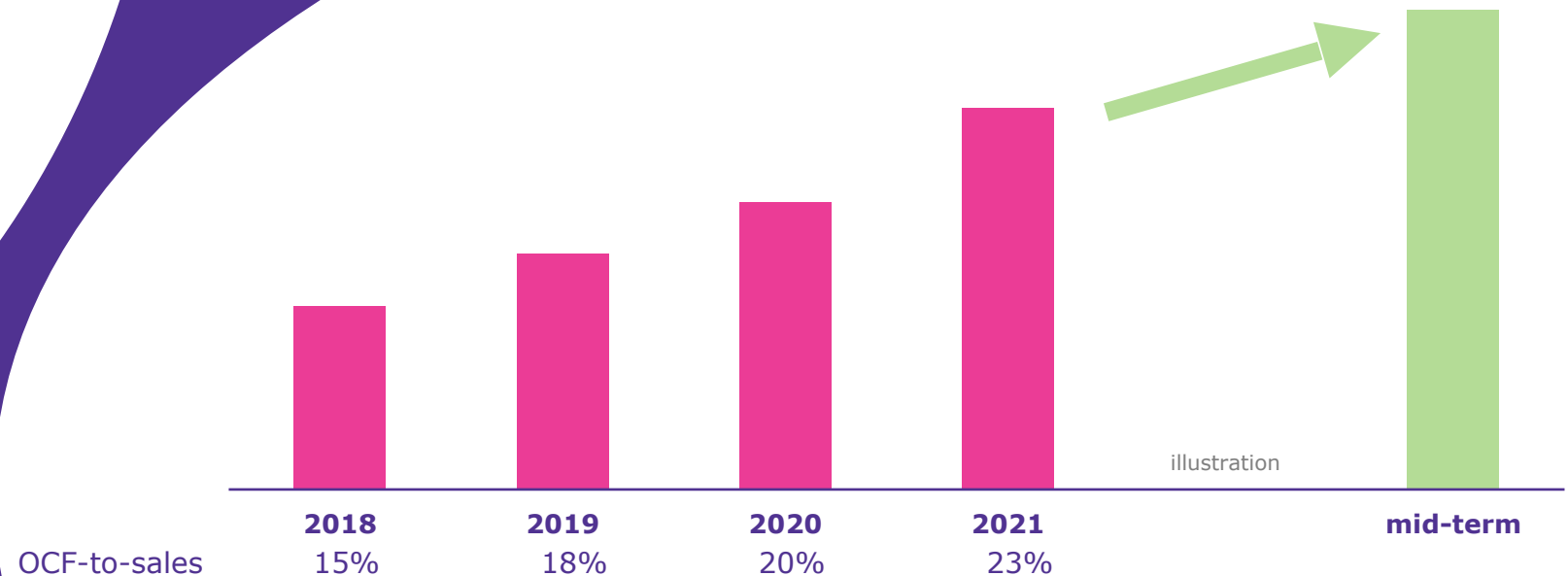
Leading= Areas where industry-leading capabilities and practices are demonstrated; Strong = Advanced institutional capabilities and quality assured by effective practices consistently displayed; Foundational = Fundamental capabilities and practices in place with repeatable processes and outcomes; Lagging behind = Significant gaps in capabilities and/or systematic and effective practices, high dependency on individuals

Group

Realizing growth ambitions through strong cash generation

- Focus on cash is of high strategic priority
- Demonstrating over years being a reliable cash generator
- Basis for all growth ambitions in the BIG3 - enables execution of our Capex, R&D and inorganic moves

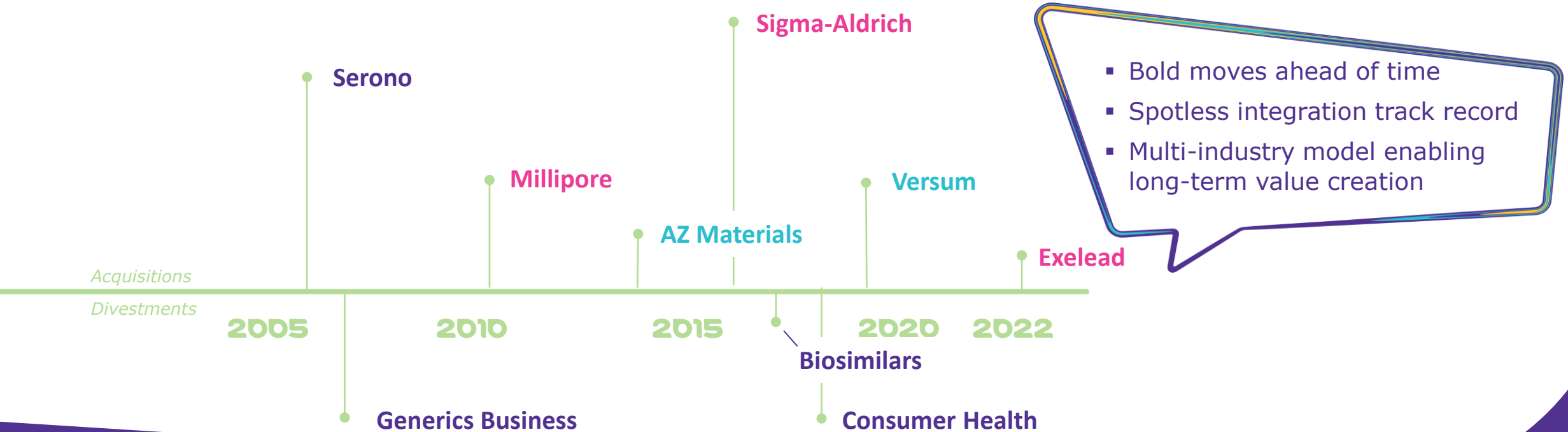
OCF grew >100% over the past years, driven by focus on cash conversion and higher margins



Acronyms: OCF=Operating Cash Flow

Group

Mastering inorganic capital allocation



Disciplined portfolio management

- **Invest for leadership**, Life Science has become a global champion in less than 10 years
- **Rigorous portfolio prioritization**, Healthcare trimmed and focused on innovation via divestments
- **Stringent focus on growth**, Electronics underwent major transformation

Group

Doubling down on M&A to accelerate growth




M&A guardrails

- 1 M&A will fit strategic direction of the Group, with BIG3 as high priority
- 2 Approaching financial capacity of around €15 to 20 bn, acknowledging evolving interest rate and macro environment
- 3 Larger scale M&A an option from 2023 onward
- 4 Further bolt-on acquisitions/ in-licensing to continue
- 5 Any acquisition will sync with Merck KGaA, Darmstadt, Germany sustainability targets



Group

Driving innovation towards the next frontier

-  Investing in R&D to capture the next wave of innovation
-  LS R&D ratio to increase to $\sim 5\%^1$, HC in the low twenties¹
EL amongst industry leading $\sim 8\%^1$
-  Leverage unique positioning to innovate at intersection of digital and material science as well as biotechnology



Life Science

- Continue innovation across mAbs manufacturing workflow, BioContinuum™
- Accelerate products and services for novel modalities, e.g. VirusExpress®
- Drive automation and digitalization, increase lab productivity, e.g. Lanexo®



Healthcare

- Leverage new datasets and advanced analytics
- Bring precision medicine to the next level and inform next generation modalities
- Bioelectronics, cracking the code of neural transmission and stimulation in treatment of chronic diseases



Electronics

- Enabling Semi technology transitions, e.g. with integrated solutions for EUV
- New environment friendly solutions, such as etch and chamber clean gases
- New OLED materials to double lifetime without compromising efficiency



Bioconvergence

Innovation at the intersection of business sectors, unique positioning at the sweet spot of converging technologies

Accelerate drug discovery via AI design-make-test-analyze platform

New treatment possibilities via enhanced mRNA LNP delivery platforms

Digital twins in smart manufacturing to optimize time, cost, quality and sustainability



Group

Product portfolio shift to increase positive sustainability impact

Using our **innovation power** to support sustainability goals of

- Merck KGaA, Darmstadt, Germany
- our customers
- society

2022 R&D initiative – Rollout of **R&D Sustainability Scorecards** across all sectors

+30%
“greener alternative”
products in Life Science
in 2021¹



R&D
prioritization for
products with
positive
sustainability
impact

Resulting in more
sustainable
operations
and products

Dedicated to human progress

1

Progress through sustainable
science & technology by 2030



Creating sustainable value chains

2

Sustainability in supply chain and
operations by 2030



Reducing ecological footprint

3

Achieving climate neutrality
by 2040



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03

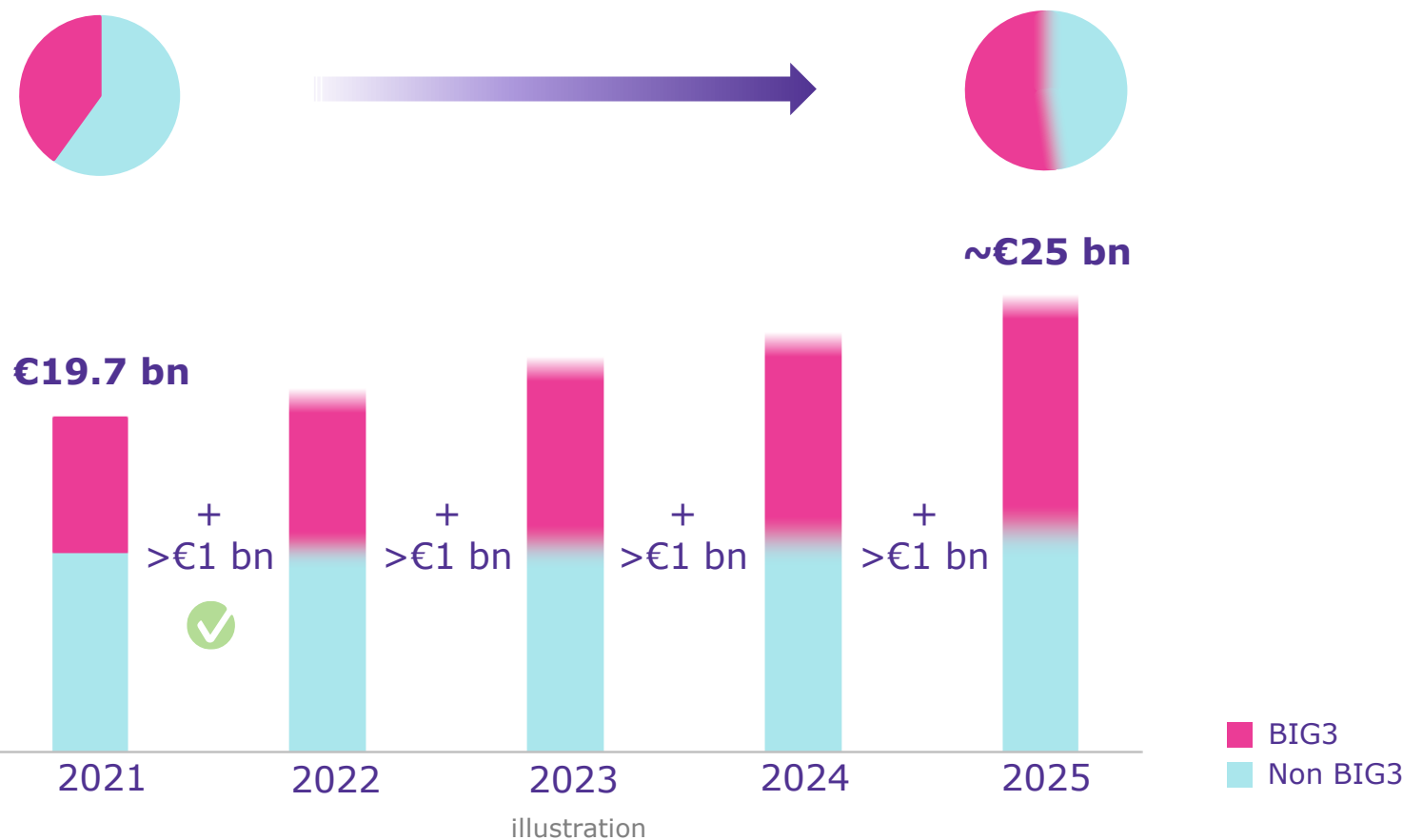
outlook & executive summary



Group

Delivering an even more robust #25by25

BIG3 to contribute to >50% of sales in 2025



- ✓ M&A excluded
- ✓ Sales growth organic >€1 bn per annum
- ✓ BIG3 ~80% of growth
- ✓ CAGR organic >6% mid term



Group

Underlying sector guidance strengthened by favorable outlook for the BIG3



LS

Reconfirming 7-10% mid-term CAGR

- Strength of core business as key growth driver
- Confidence in target corridor even if pandemic-related sales fall to zero over time



HC

Reconfirming mid single-digit mid-term CAGR

- New products driving growth, to be expanded with launches of evobrutinib and xevinapant
- Established portfolio with positive contribution



EL

Reconfirming 3-6% mid-term CAGR

- Continuous confidence in mid-term upwards cyclicity of semiconductors and ability to outperform the market



Maintaining guidance

despite significant macro turbulences



Group Executive summary on strategy update



shape

Uniquely positioned in
fast-growing markets



grow

Sustainable growth
>6% CAGR org.



innovate

Pushing frontiers within
and among sectors



enable

Sustainable solutions for
customers and society





Financial perspective

Marcus Kuhnert, CFO



Agenda

- 01 Enabling growth
- 02 Expanding on a solid foundation
- 03 steering towards #25by25
- 04 Executive summary





01 Enabling growth

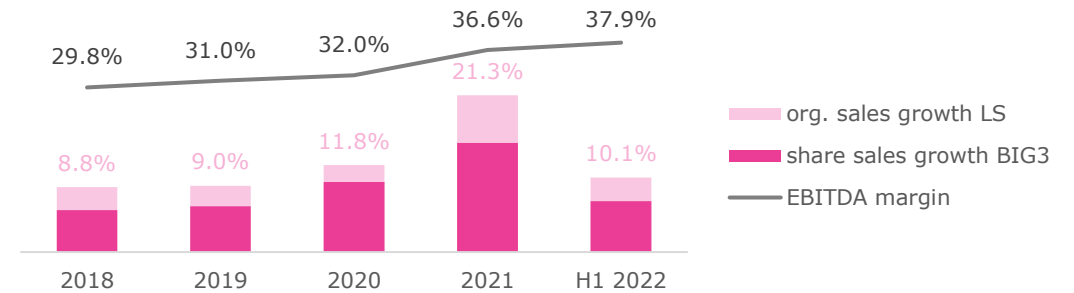


Group

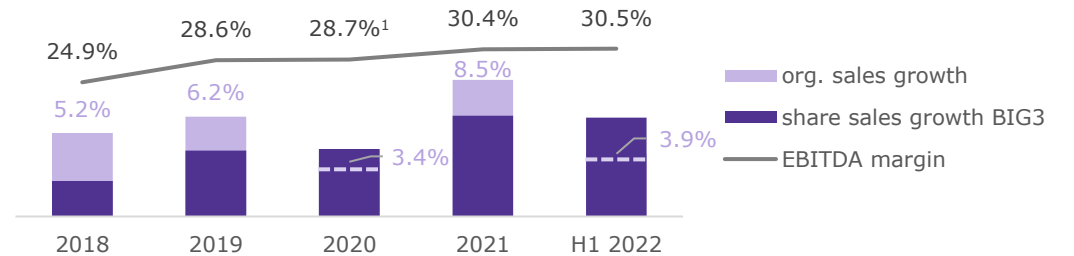
Track record of growth and profitability, amid cost discipline



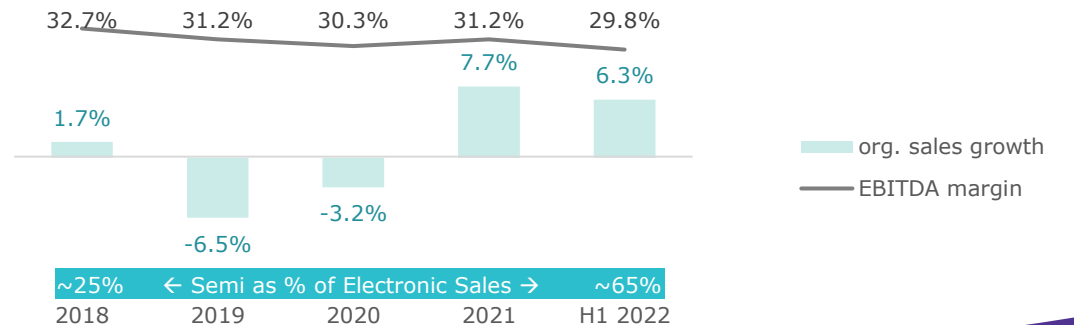
- **Above-market organic growth**, paired with **industry-leading margins**
- Significant **growth investments**, organic, inorganic & partnerships



- **Sustained mid-single digit growth**, rising contribution from recent product launches
- Two promising post PoC pipeline assets with **blockbuster potential**

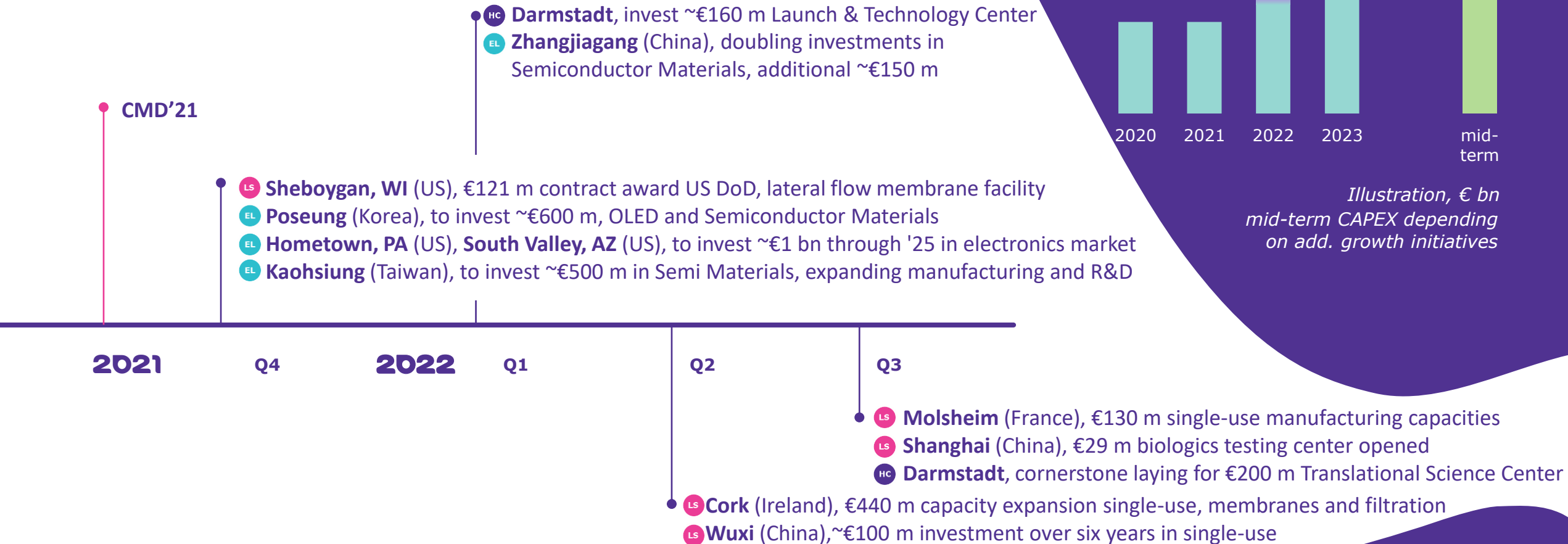


- Successfully restructured portfolio towards **high-growth semiconductor business**
- **Innovation power** driving attractive semiconductor margins



Group

Major CAPEX initiations since last CMD underline BIG3 growth ambitions



Group

Diversification of manufacturing footprint strengthened further



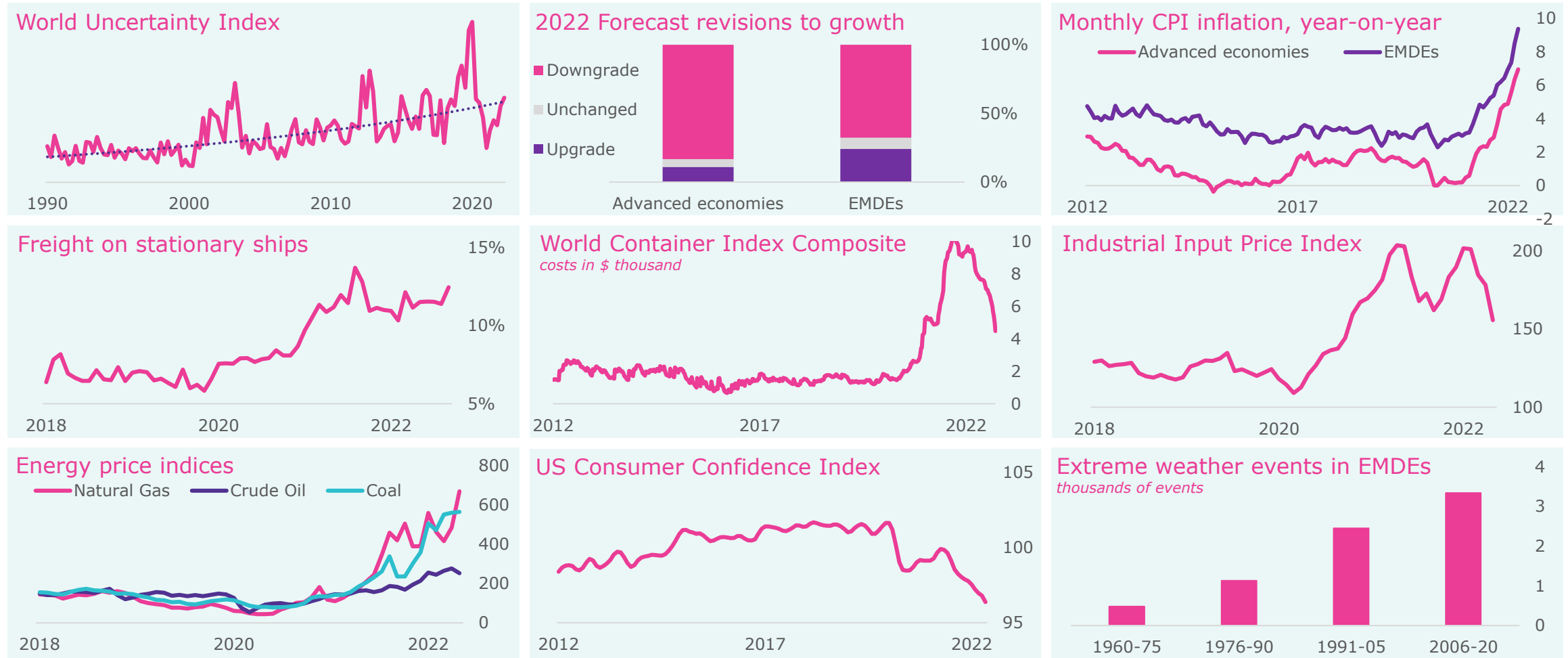
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02

**Expanding on a
solid foundation**



Altered economic circumstances pressure test for all industries



Group

We continually monitor resilience by quantified metrics

>150

Resilience practices around execution, foresight and adaptation

~30

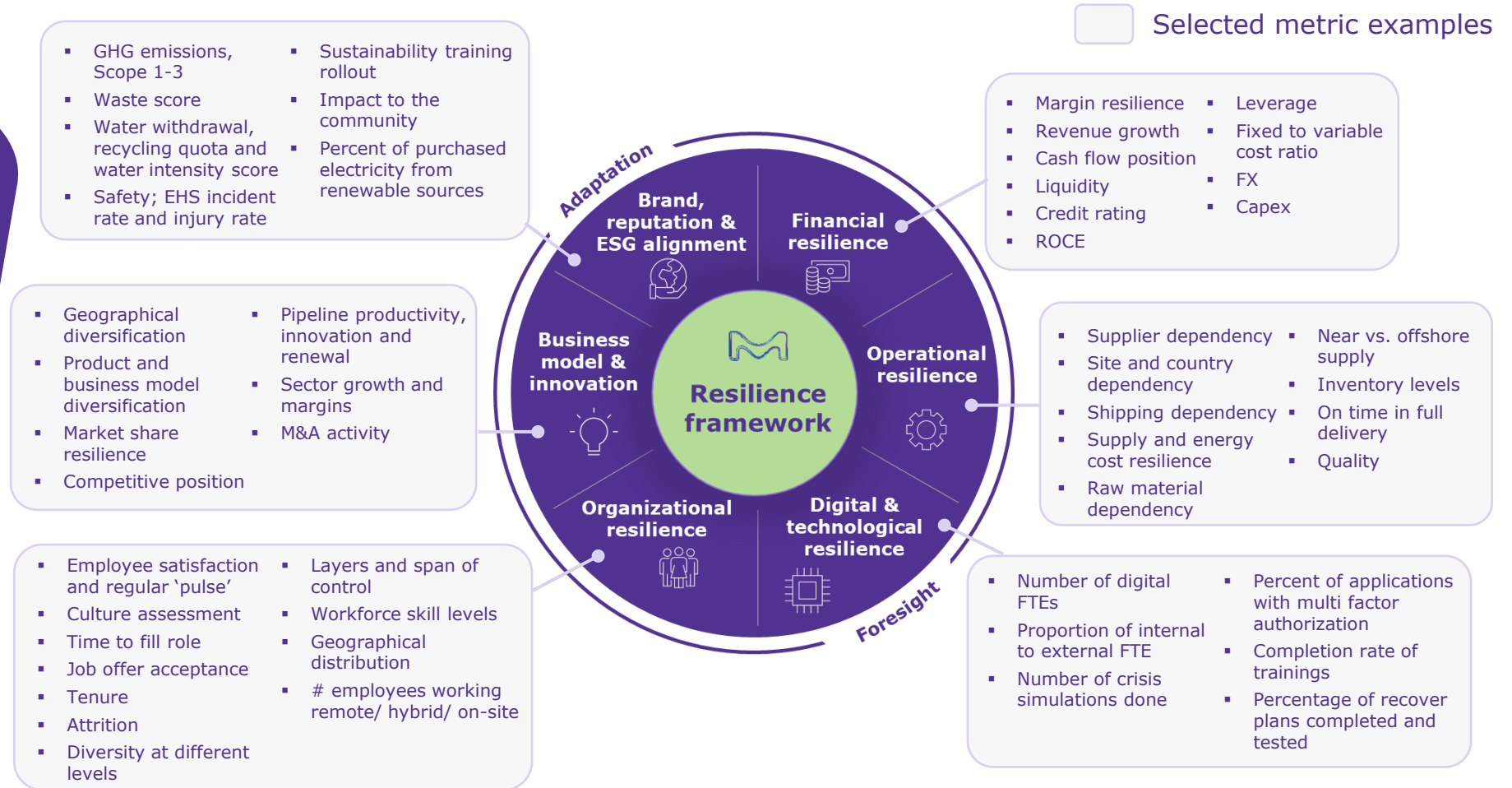
Sub-dimensions

6

Execution levers

2

Capabilities



Multiple key strengths across resilience dimensions



Major differentiating strengths

- **Good financial position**
Well-positioned to both weather potential external disruptions (defense), exemplified by stable margins, capturing new growth opportunities (offense)
- **Diversified portfolio**
Broad geographical reach, three sectors combined significantly reduce overall risk profile. Allocating resources where value is maximized
- **Strong commitment to ESG**
Goals are integrated into strategy and backed by concrete plans, strong track record in sustainability rankings

Areas being actively sharpened

- Further strengthening **supply chain** with alternative sourcing and production options
- Continued improvement of **risk foresight** and **adaptation speed** to manage disruptions even better
- On **culture**, further sharpen approach to **organizational resilience**, **talent** and **workforce** planning

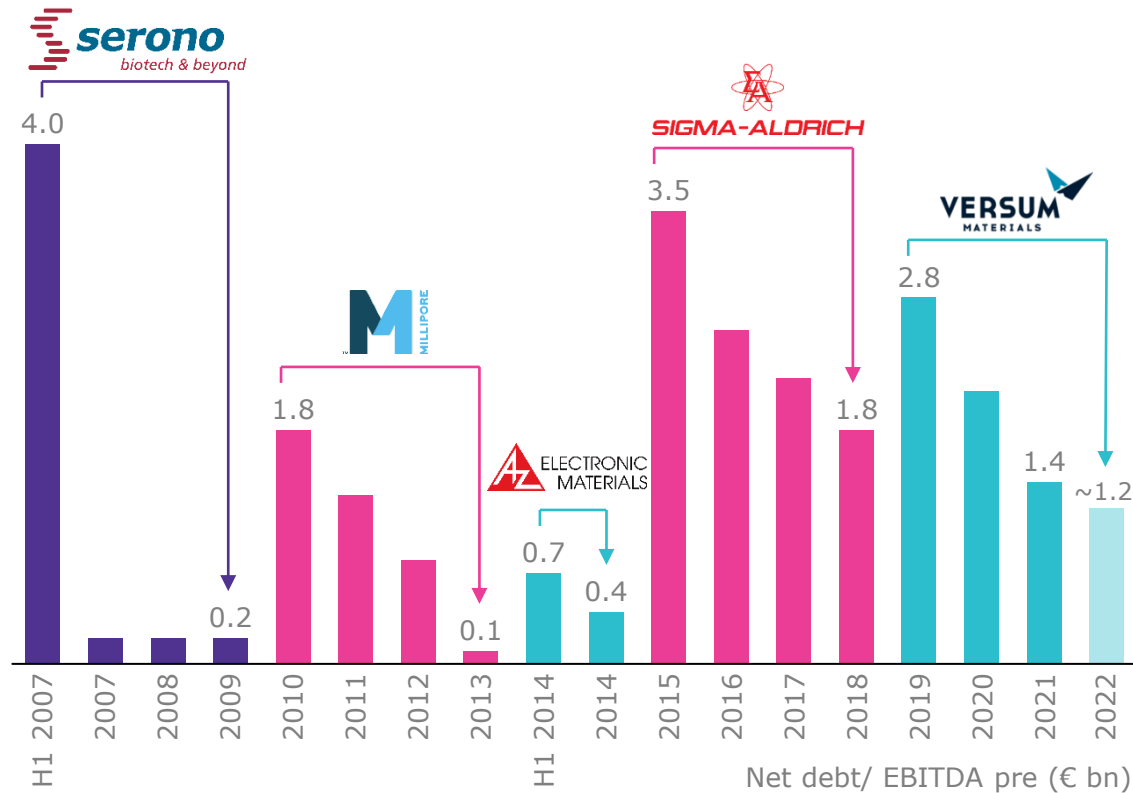


Opportunities to capture growth

- **Acquisitions and strategic collaborations** to capitalize on value creation opportunities amid changing market conditions
- Continued **digitization**, creating data-driven insights and transparency
- Further expand digital channels to interact even closer with customers and patients
- Leverage position in **ESG** to create new business opportunities, through sustainable products and green ventures

Group

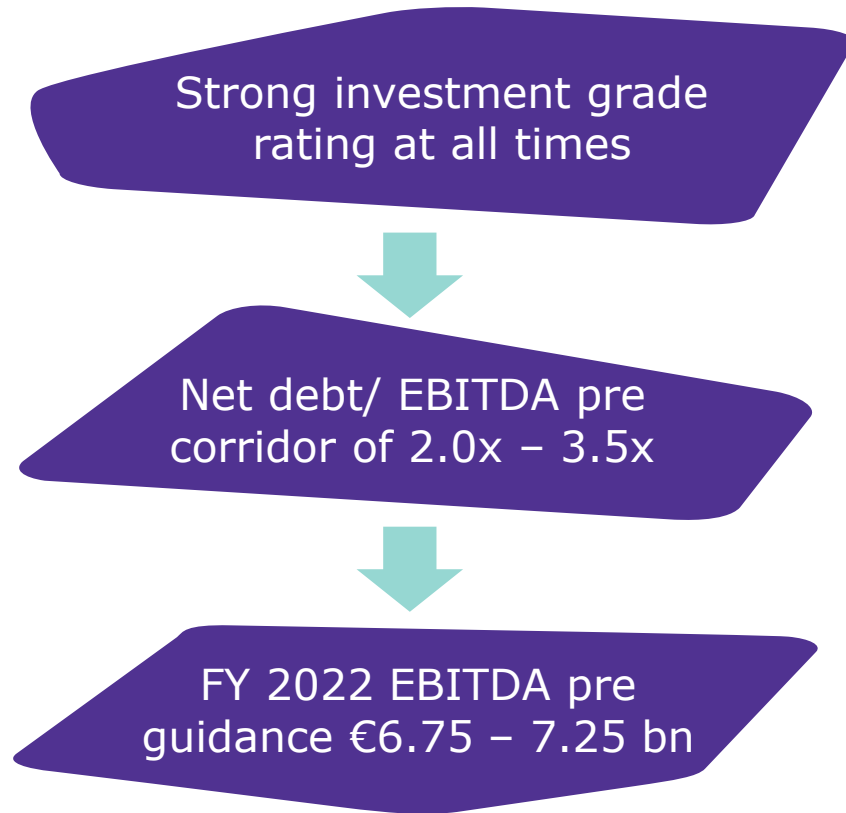
Track record in fast deleveraging enabled by high-quality cash flow



- Resilient sources of cash, especially PS, SLS and Established Portfolio (HC)
- Solid investment grade ratings: Moody's (A3) since 2021, S&P (A) since 2013, Scope Ratings (A-) since 2016
- BIG3 to be further strengthened with CAPEX, R&D and OPEX; financial flexibility is key

Group

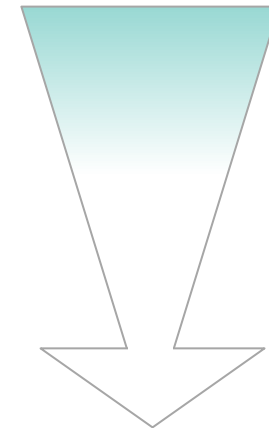
Financial M&A framework: Group has sufficient headroom



Confirming dividend payout ratio of 20% to 25% of EPS pre

Financing options by priority

- 1 Cash
- 2 Debt
- 3 Hybrid
- 4 Divestments



Group

Steering to achieve our sustainability goals by targeted investments

Investment categories incorporating sustainability aspects



R&D

R&D Sustainability Scorecard (2023) to prioritize R&D projects leading to more sustainable products e.g. *pilot in LS*



M&A

ESG valuation and due diligence framework to identify risks and opportunities for potential targets e.g. *environmental footprint, safety, ethics*



capex

Materiality analysis & risk assessment from a sustainability perspective, scenario analysis, valuation e.g. *NF₃ reduction, VPPA contract*

Our **sustainability guardrails** are an integral part of our cost-benefit analysis.

This holds true not only for targeted sustainability investments, but for our **investment processes** in general.



03

steering towards
#25by25



Group

Confirming 2022 guidance despite inflationary pressures

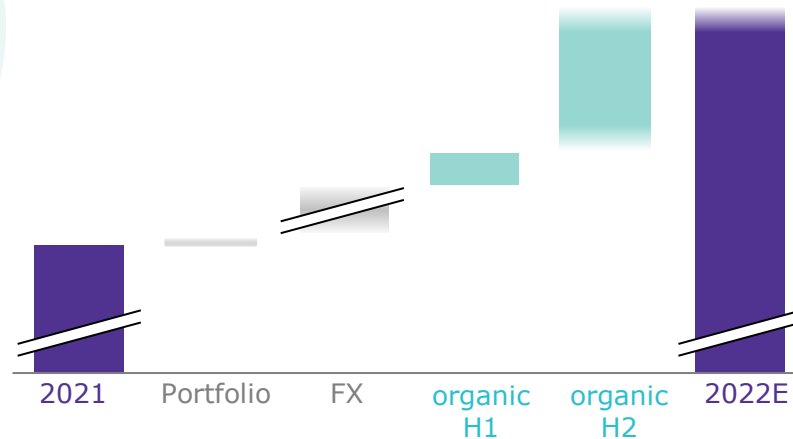
Continuous confidence in 2022 guidance

- 6% to 9% org. growth in Group sales
- 5% to 9% org. growth in Group EBITDA pre

Expected EBITDA pre development in 2022¹

[in € m YoY]

illustration



Drivers of H2 development

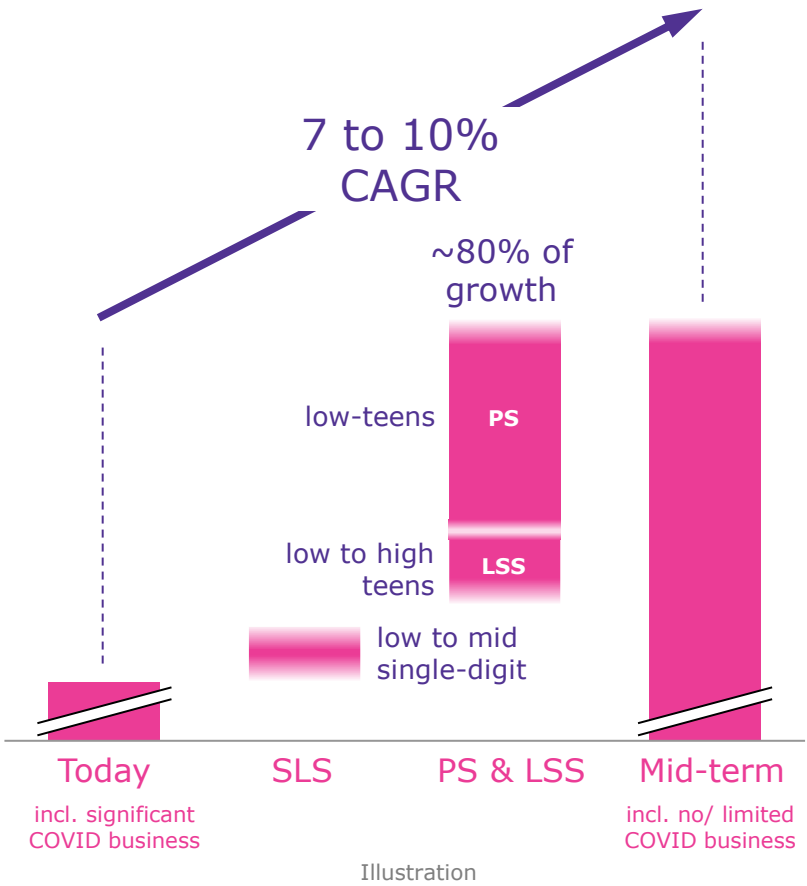
- **Group-wide:** Varying comp effects driving difference in growth H2 vs. H1
- **Life Science:** Continued core business strength more than offsetting accelerated COVID decline against rising comps
- **Healthcare:** H1 with tough comps as prior year period included Bavencio[®] milestone, GSK deferred income and supply to Eli Lilly adding up to ~€150 m
- **Electronics:** Continued fast growth in Semi Materials further supported by DS&S. First signs of macro cool down and continuous inflationary pressures



Life Science

Core business strength driving increased confidence in mid-term outlook

 **Diversified industry leader**



Confident to deliver mid-term target corridor even if pandemic-related sales fall to zero over time

Process Solutions
Executing network expansion & regionalization (esp. single use, filtration) and enabling customer transformation towards the factory of the future

Life Science Services
Leveraging leading contract testing organization and scaling focused CDMO with an integrated, full-service offering across multiple modalities

Science & Lab Solutions
Capturing durable growth across diverse, attractive customer segments



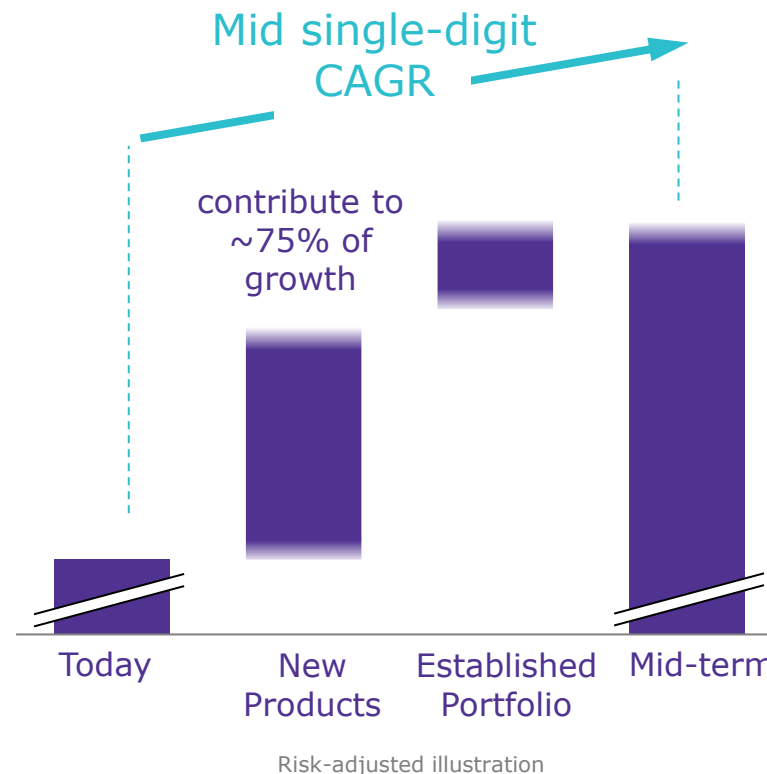
Healthcare

Growth driven by innovation, building on a solid established portfolio



Global specialty innovator

Profitable sales growth above global pharmaceutical market¹



New products

- Committed to drive **Wave 1** launches Bavencio[®], Mavenclad[®] and Tepmetko[®]
- Wave 2** expands with evobrutinib (BTKi) with FiC potential in RMS and xevinapant (IAPi) aiming at setting up a new SoC in LA SCCHN

Sustainable long-term growth

- New pipeline entrants in DNA damage biology, novel ADCs, TLR 7/8 underline an exciting and less risk-correlated approach in oncology and neuroinflammation

Learn more in the R&D Update Call Nov. 21

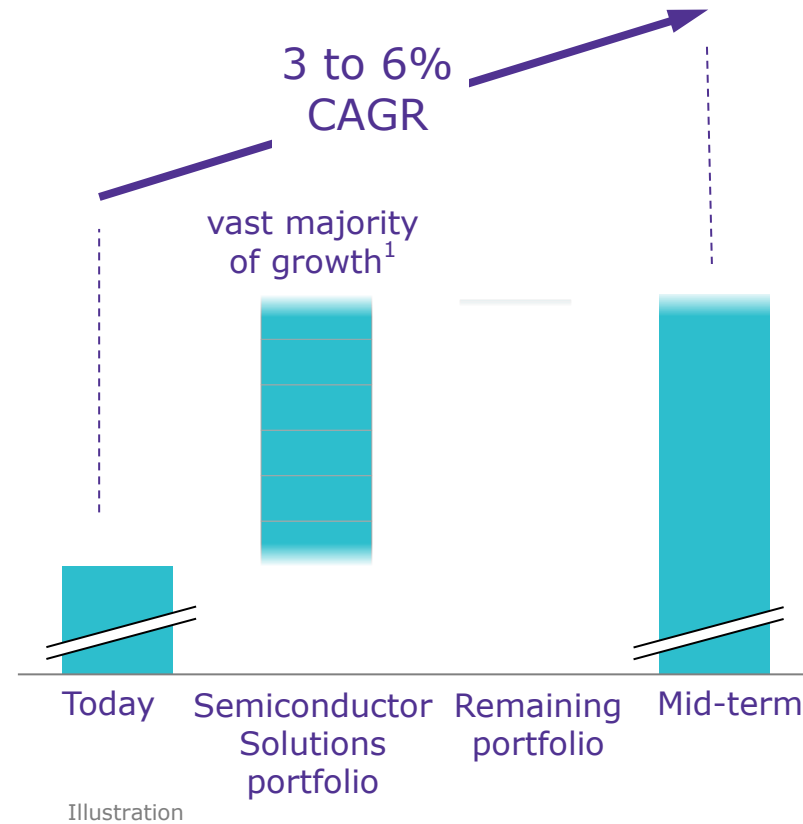


Significant progress on “Level Up” growth execution



A leading player

Executing on growth:
Leading positions in
semiconductor materials
with one of the
strongest portfolios in
the industry



Semiconductor Solutions

CAGR 200 to 300bps² above underlying market of 5% to 7%

Display Solutions

CAGR of low single-digit decline with return to growth until 2025

Surface Solutions

Low single-digit growth CAGR

Delivering on Level Up:

- Major capacity expansions in sync with customer CAPEX
- R&D roadmap catering to customers tech ramps
- Highly complementary bolt-on acquisitions





04 EXECUTIVE SUMMARY



Group

Executive summary on financial perspective



execute

Focus on margin protection, capex expansion and M&A



diversify

Resilient setup with strong cash flows



ensure

Steering investments within sustainability guardrails



reconfirm

Passion to deliver efficient growth

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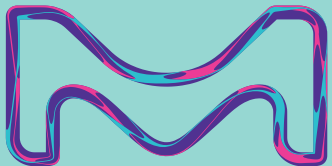


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Capital Markets Day 2022

Life Science fireside chat



Capital Markets Day 2022

Healthcare fireside chat



Capital Markets Day 2022

Electronics fireside chat



