

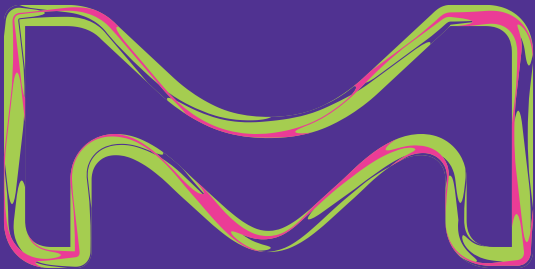


MERCK KGAA, DARMSTADT, GERMANY

18TH GERMAN CORPORATE CONFERENCE

Marcus Kuhnert, CFO

Frankfurt – January 21, 2019





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Agenda

- 01 Strategic roadmap**
- 02 Healthcare** – Launches driving earnings growth
- 03 Life Science** – Outperforming the market
- 04 Performance Materials** – Maintaining leadership and innovation
- 05 Conclusion & Outlook**



01

STRATEGIC ROADMAP

Group

Three high-tech & science businesses competing in attractive markets



Healthcare

Leading in specialty pharma markets

- Biologics and small-molecule **prescription medicines** against cancer, multiple sclerosis, infertility
- **Research** focus: Oncology, Immunology & Immuno-Oncology
- **Successful portfolio management:** e.g. divestment of Consumer Health business



Life Science

Leading life science company

- Tools and services for **biotech research & production**
- **Tools and laboratory supply** for academic research and industrial testing



Performance Materials

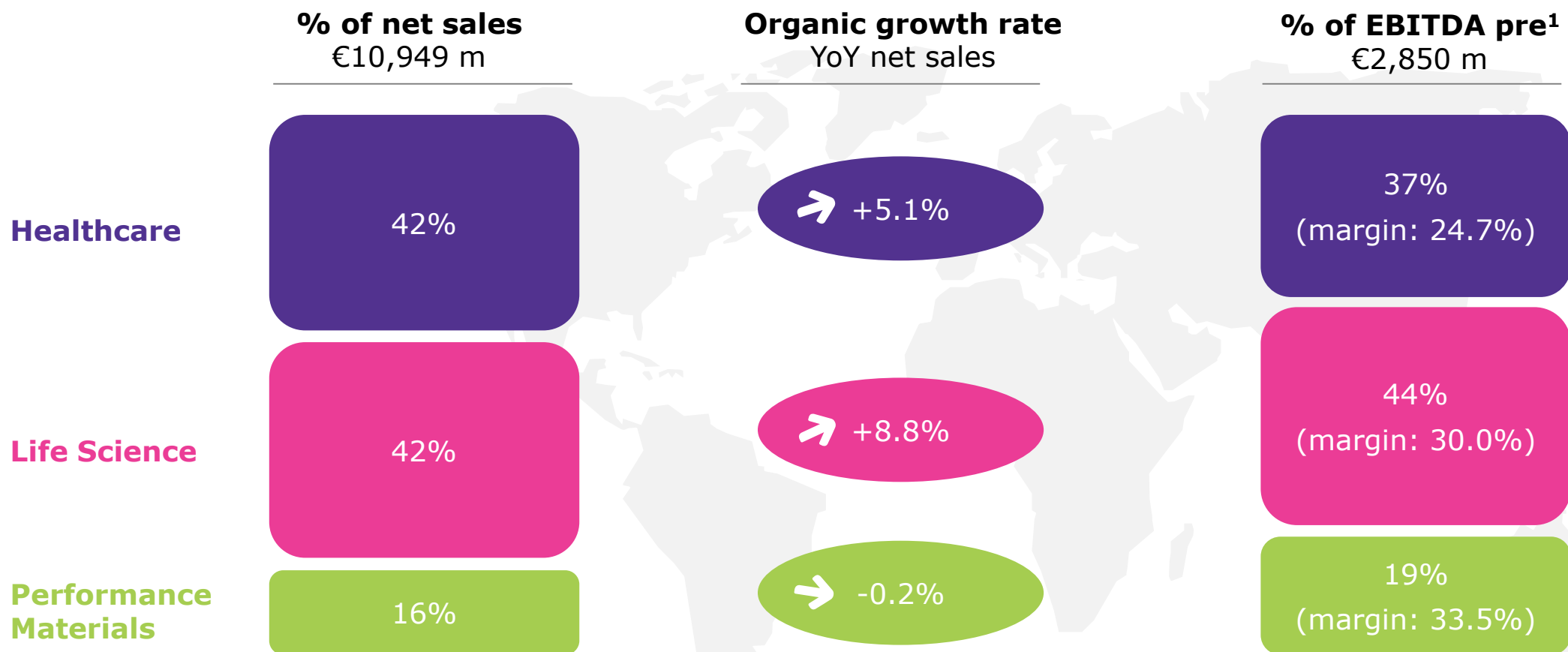
Leading company in high-tech solutions

- High-tech solutions and materials for **electronics**
- Broad portfolio of **decorative and functional solutions**

Group

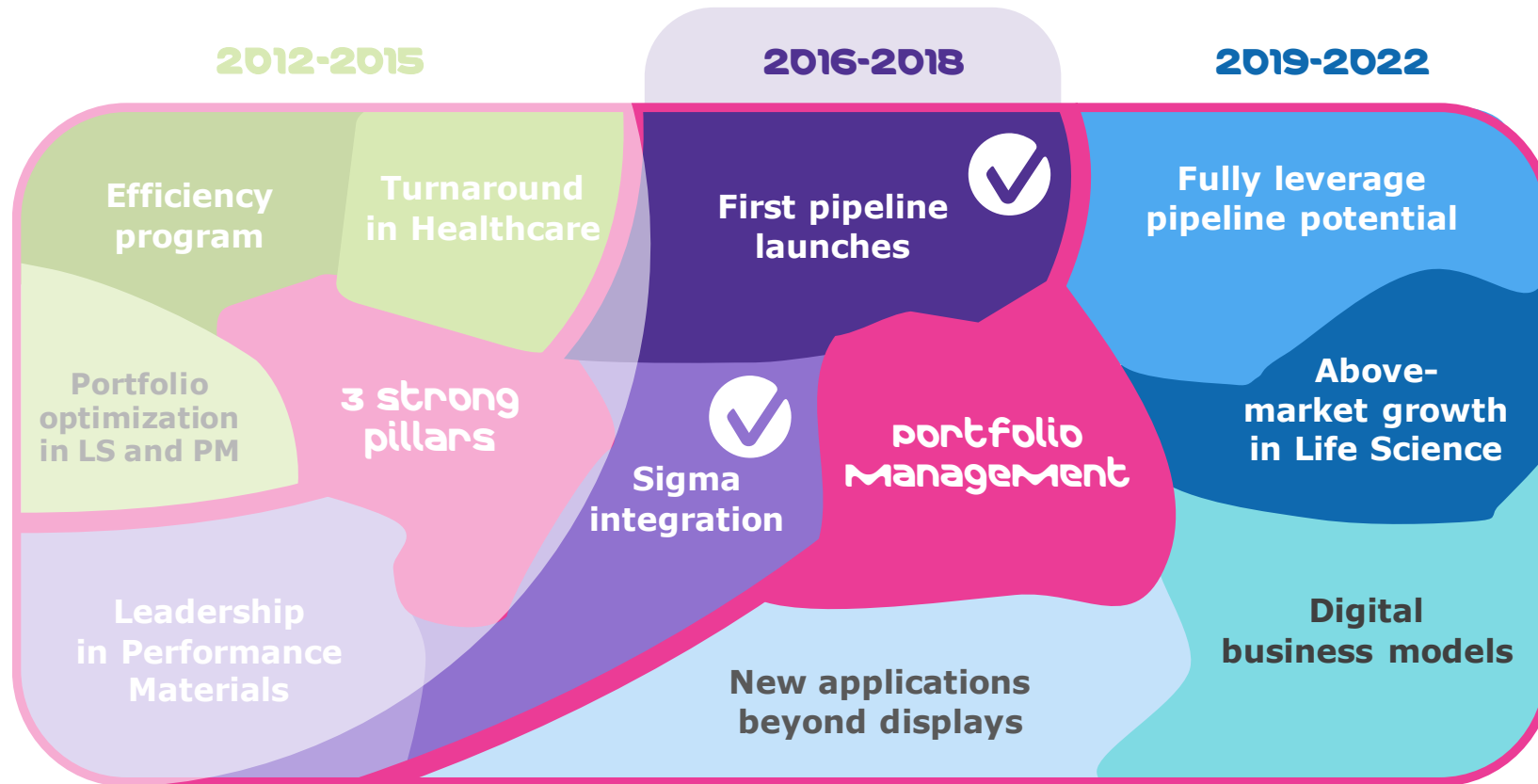
Strong businesses with attractive margins

9M 2018



¹ €2,850 m includes Corporate/Others of €-252 m

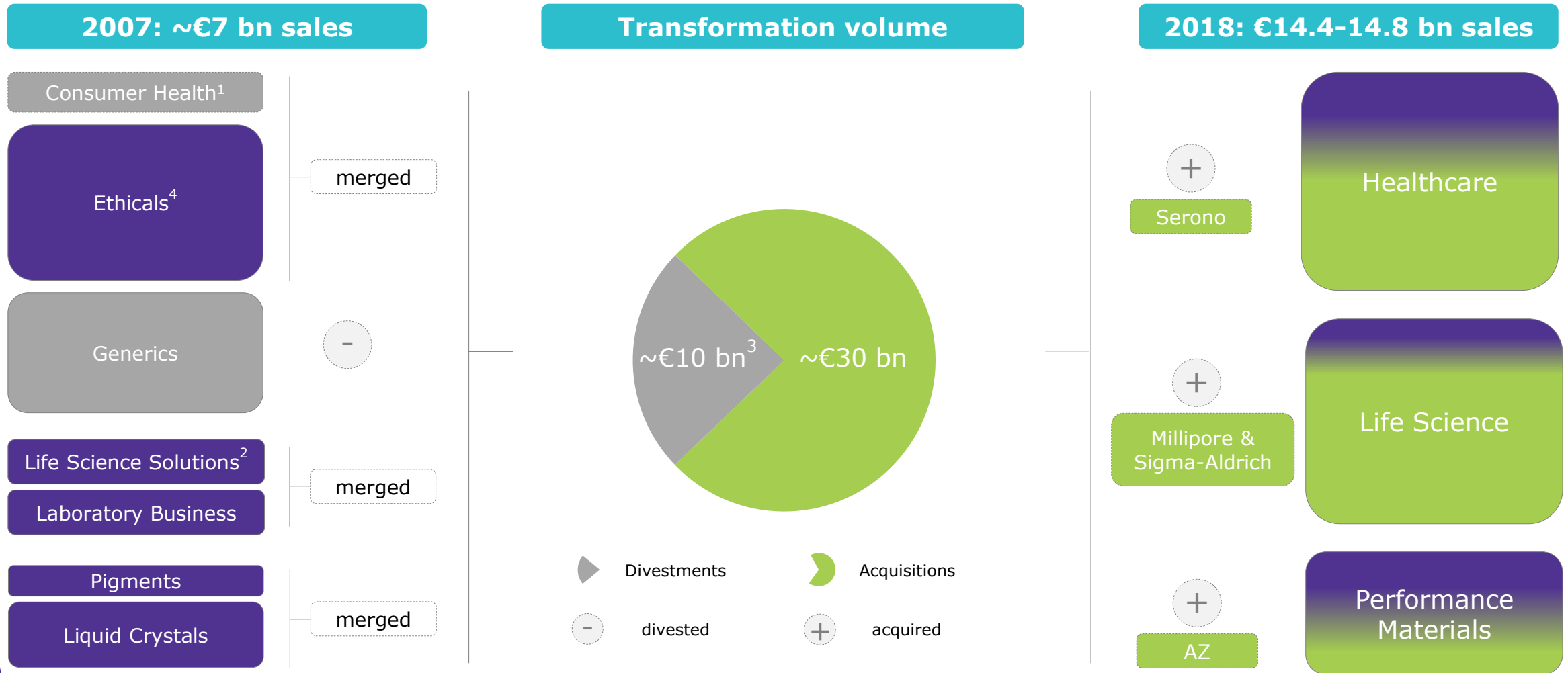
Group Transitioning into the growth phase



Completion of execution phase puts us in good shape to now enter the growth phase of our 2019-2022 strategic agenda

Group

We have added scale and strengthened the attractiveness of our portfolio



¹Closing of sale of Consumer Health at a cash purchase price of € 3.4 billion completed as of December 1 2018; ²Excluding "Crop Bioscience", which was divested;

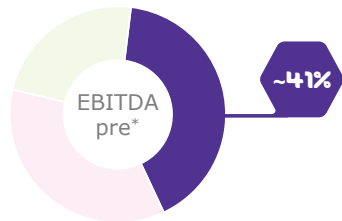
³Profroma divestment volume includes cash proceeds for Consumer Health ⁴Excluding "Theramex", which was divested;

Group

Clear set of priority goals to be realized by 2018



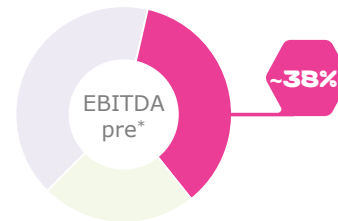
Healthcare



- Maximize growth of existing franchises
- Deliver pipeline: one product launch or indication p.a. from 2017



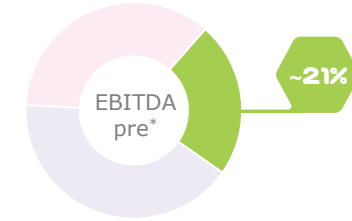
Life science



- Focus on seamless integration and deliver cost synergies
- Leverage strategic capabilities for value creation



Performance Materials



- Drive innovation and technology leadership across all businesses
- Innovate in applications also beyond displays

**MERCK KGaA,
Darmstadt,
Germany**

- Deleverage to <2x net debt / EBITDA pre in 2018
- No large acquisitions (>€500 m) until end of 2018 (unless financed by divestments)
- Dividend policy that ensures a sustainable and resilient development

*based on FY 2017 reported EBITDA pre, excluding Corporate & Other

Healthcare

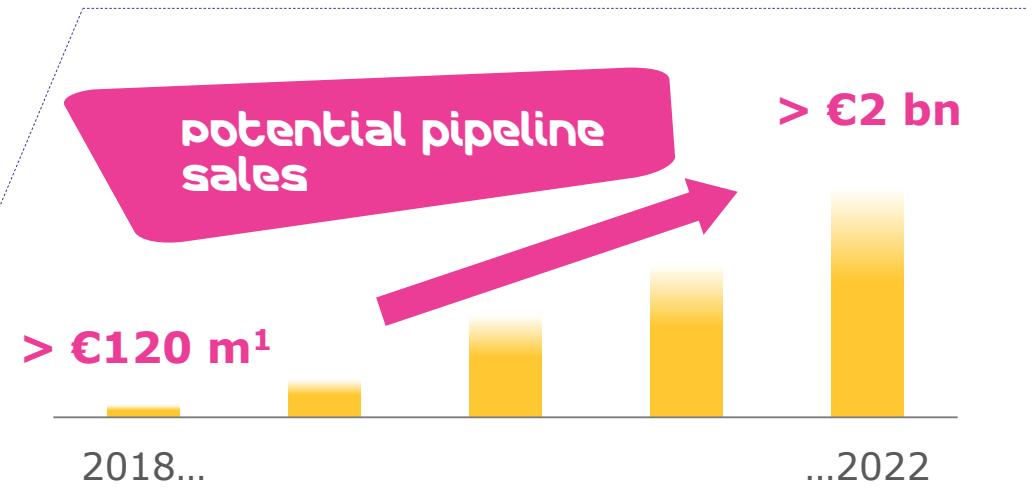
Launches driving
earnings growth



Healthcare

Healthcare is set to deliver on promising pipeline candidates

Focus on
the
pipeline



Pipeline
products



2013



2022E

Core
business

ERBITUX[®]
CETUXIMAB

Rebif[®]

Glucophage[®]
metformin

Euthyrox[®]

Concor[®]

saizen[®]
Somatropin r-hGH

GONAL-f[®]
FOLLITROPIN ALFA

Pergoveris[®]

OVITRELLE[®]
choriogonadotropin alfa

Cetrotide[®]
CETRORELIN

Crinone[®]
progesterone gel 8%

Deliver
organic
growth
from core
business

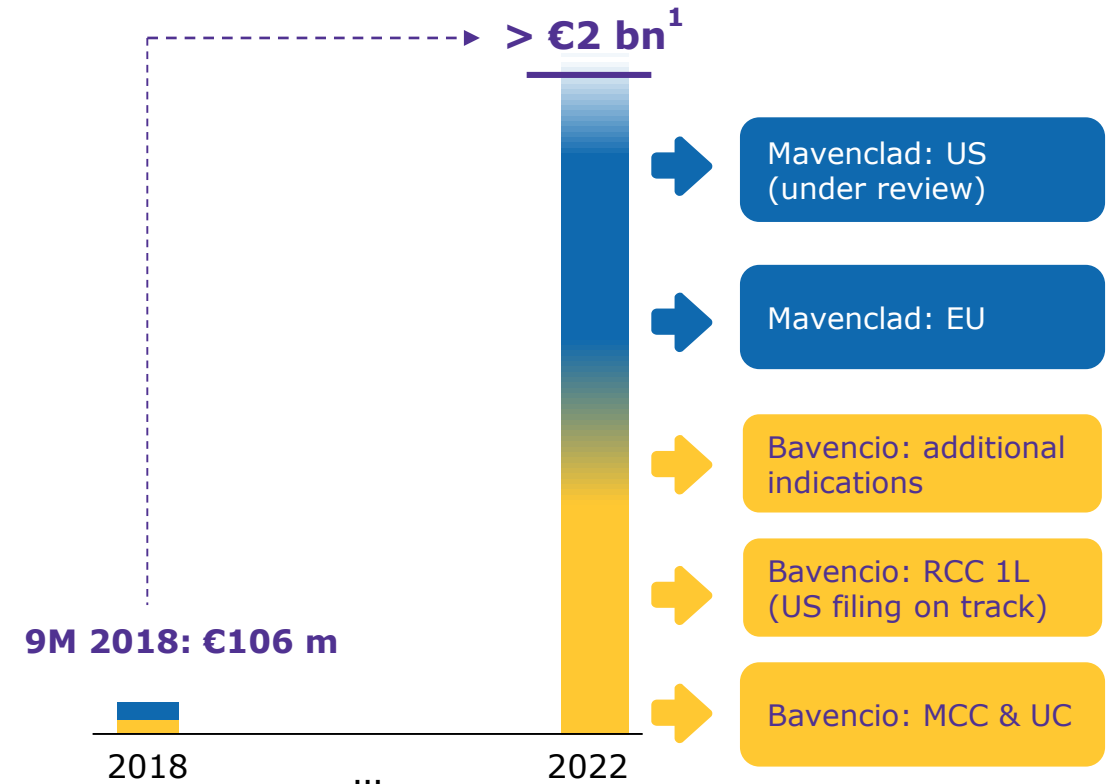
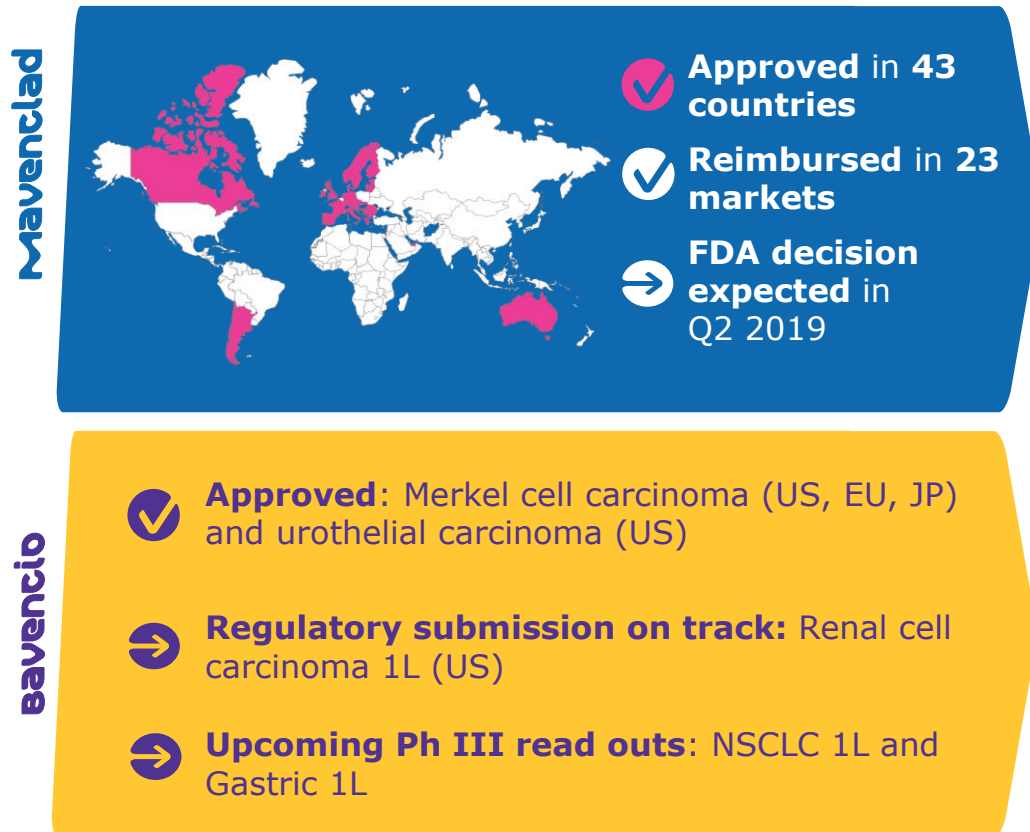
¹Guidance 2018

Healthcare

Until 2022: Mavenclad and Bavencio building confidence in €2 bn ambition

Global launches gaining traction ...

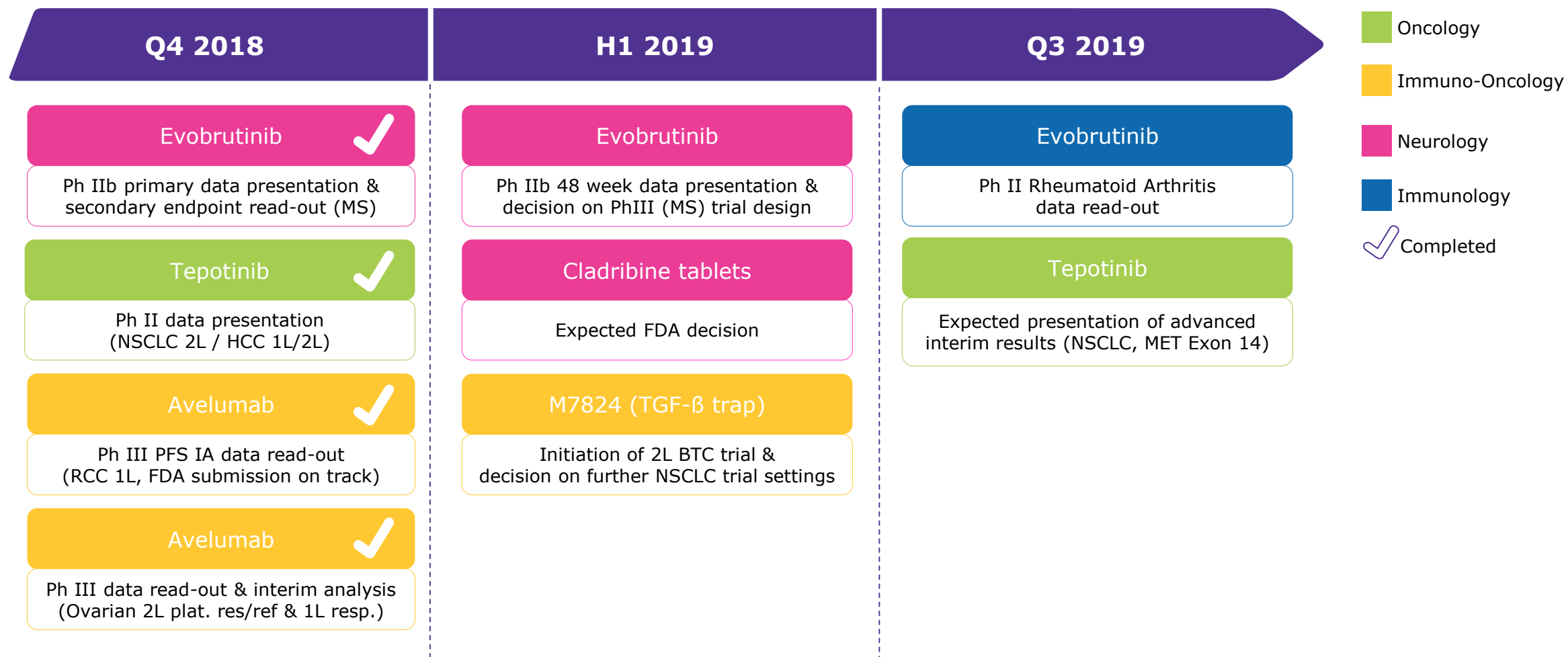
... and supporting €2 bn pipeline sales ambition



¹ Indication: risk adjusted, composition is illustrative and may change subject to data read-outs and registrational outcomes; Acronyms: RCC – Renal cell carcinoma | MCC = Merkel cell carcinoma | UC = Urothelial carcinoma

Recent & upcoming catalysts

An eventful Q4 and a year of continued pipeline development ahead¹







¹Note: All timelines are event-driven and may be subject to change; Acronyms: NSCLC – Non small cell lung cancer | MS – Multiple Sclerosis | RCC – Renal Cell Carcinoma | HCC – Hepatocellular Carcinoma | plat. res/ref – platinum resistant/refractory | FDA – U.S. Food and Drug Administration | IA – Interim Analysis

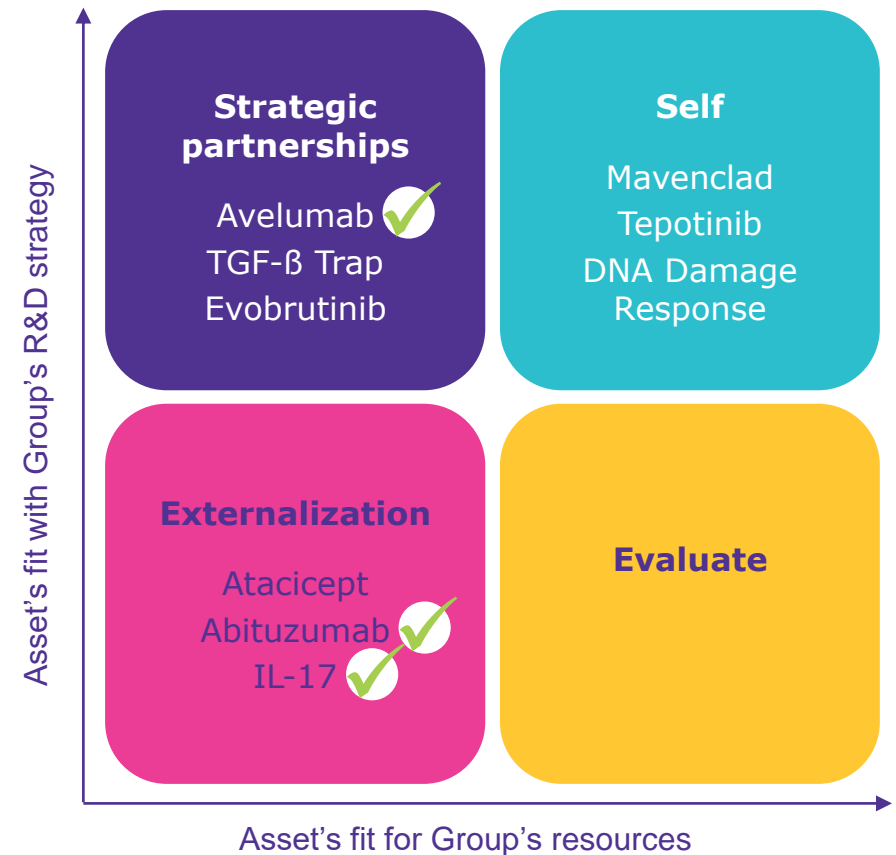
Healthcare

Active management of our full pipeline to maximize its value

Full pipeline requires regular **prioritization** and **de-risking** decisions

-  We continuously **monitor all pipeline candidates**
-  **Regular assessment of their potential** is based on clinical data, strategic fit and financial criteria
-  We then decide on **how to best develop** the assets going forward
-  **Strategic partnerships** and **external financing** are key to de-risk the pipeline and maximize its value

Merck's KGaA, Darmstadt, Germany key pipeline compounds*



*Assessment may change due to regular review

Life Science

outperforming
the Market



Life Science

The market: Large with stable growth trends

RESEARCH

~€45-50 bn

Low single-digit growth



Academic and government institutions

Biopharma R&D

Industry R&D

PROCESS

~€50 bn

High single-digit growth



Pharmaceutical companies

Small biotech

Contract manufacturing organizations

APPLIED

~€55 bn

Mid single-digit growth



Diagnostic manufacturers

Clinical testing labs

Food & Beverage manufacturers

Customer segments

~€150 bn¹ market growing at ~4% CAGR²

Underlying trends

- Growth in volume of experiments
- Mild growth in academic funding
- Investment in industry R&D

- Drug volume growth
 - from biologics
 - from emerging modalities
- Continued shift to single-use

- Volume growth from
 - Population growth
 - Rise in quality standards
 - Increased testing needs

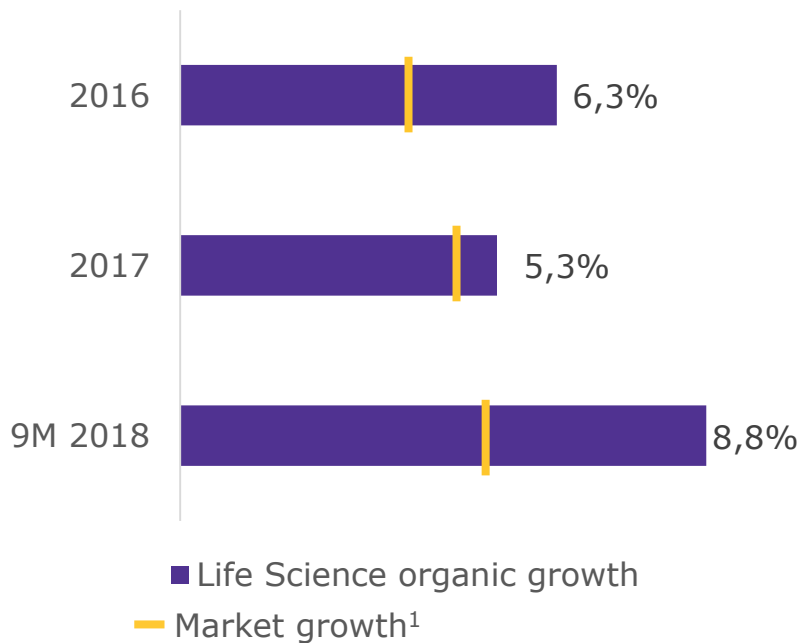
¹ Source: Merck KGaA, Darmstadt, Germany, estimate 2018; ² 2015-2017

Life Science

Our performance: Sustained market leading growth and profitability

Consistent above-market growth

Organic sales growth vs market¹ [YoY]



**Grow above market
through to 2022**

Key industry player

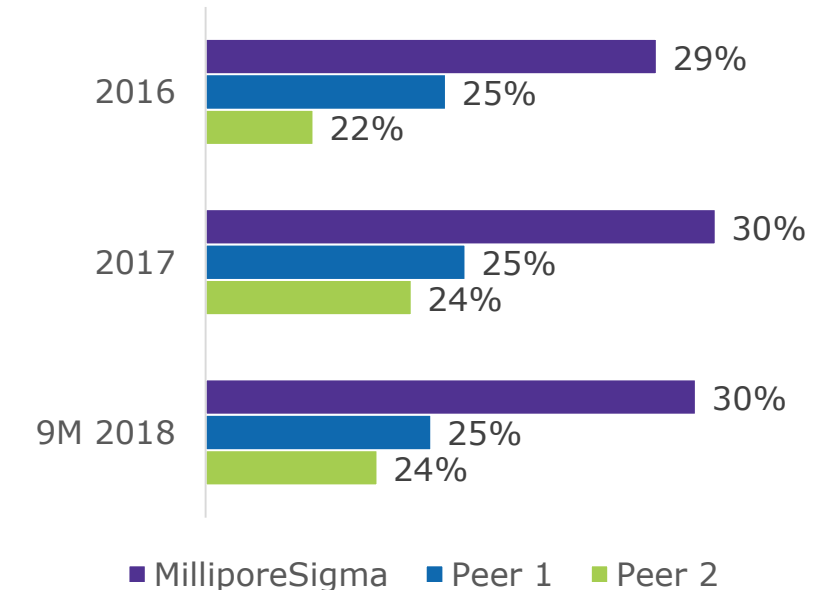
Life Science net sales



**Secure leading market
position**

Superior profitability

EBITDA pre margin



**Maintain industry-leading
margin**

¹ Based on integrated life science peers' performance, analyst reports and Laboratory Products Association report; yellow line indicates the mean i.e. peers will fall above as well as below this value

Life Science

Our ambition: Sustaining above-market growth through innovation

Out-Performance

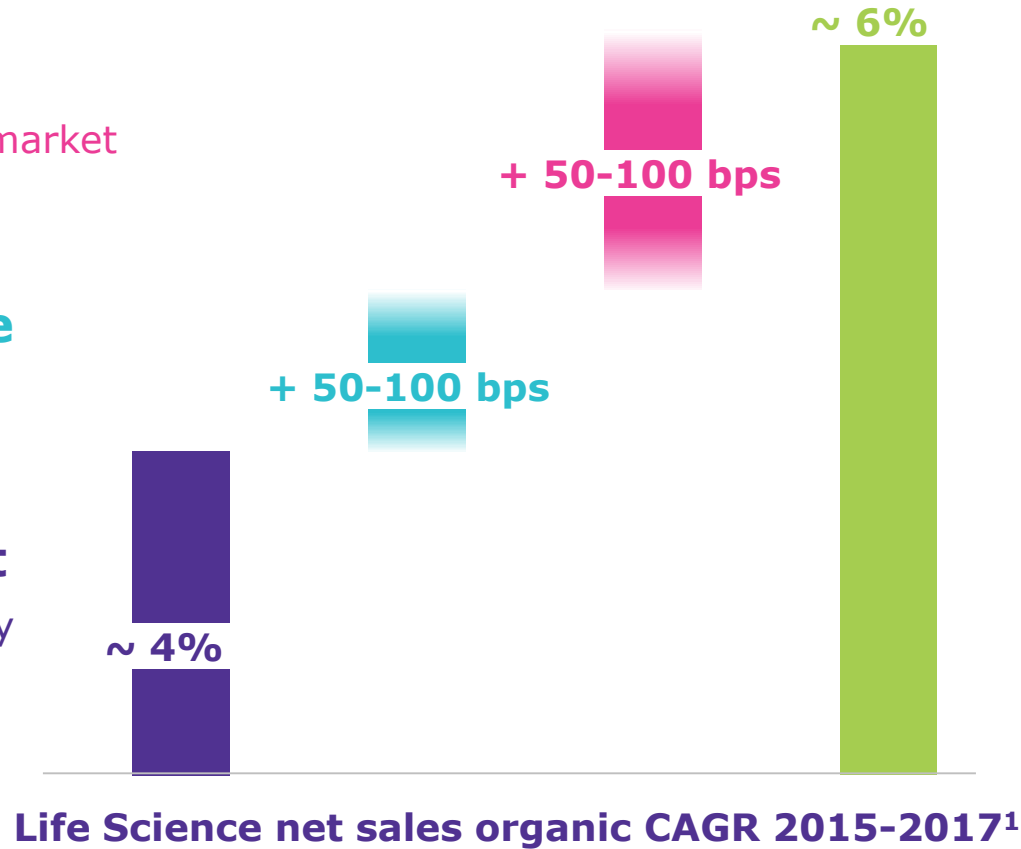
- Growth within relevant market segments

Portfolio advantage

- Focus on higher-growth segments

Life science market

- Rapidly evolving industry



Investing into Innovation

- ▶ E-Commerce platform
- ▶ Asia (esp. China)
- ▶ Contract manufacturing of viral vectors
- ▶ Single use bioprocessing

¹ Indicative

performance Materials

Maintaining leadership
and innovation



Performance Materials

Three high-tech pillars set for profitable growth



Sales share (Q3 '18)



Products

- Dielectrics, colloidal silica, lithography materials, yield enhancers, edge-bead removers
- Polyimide raw materials and printing materials

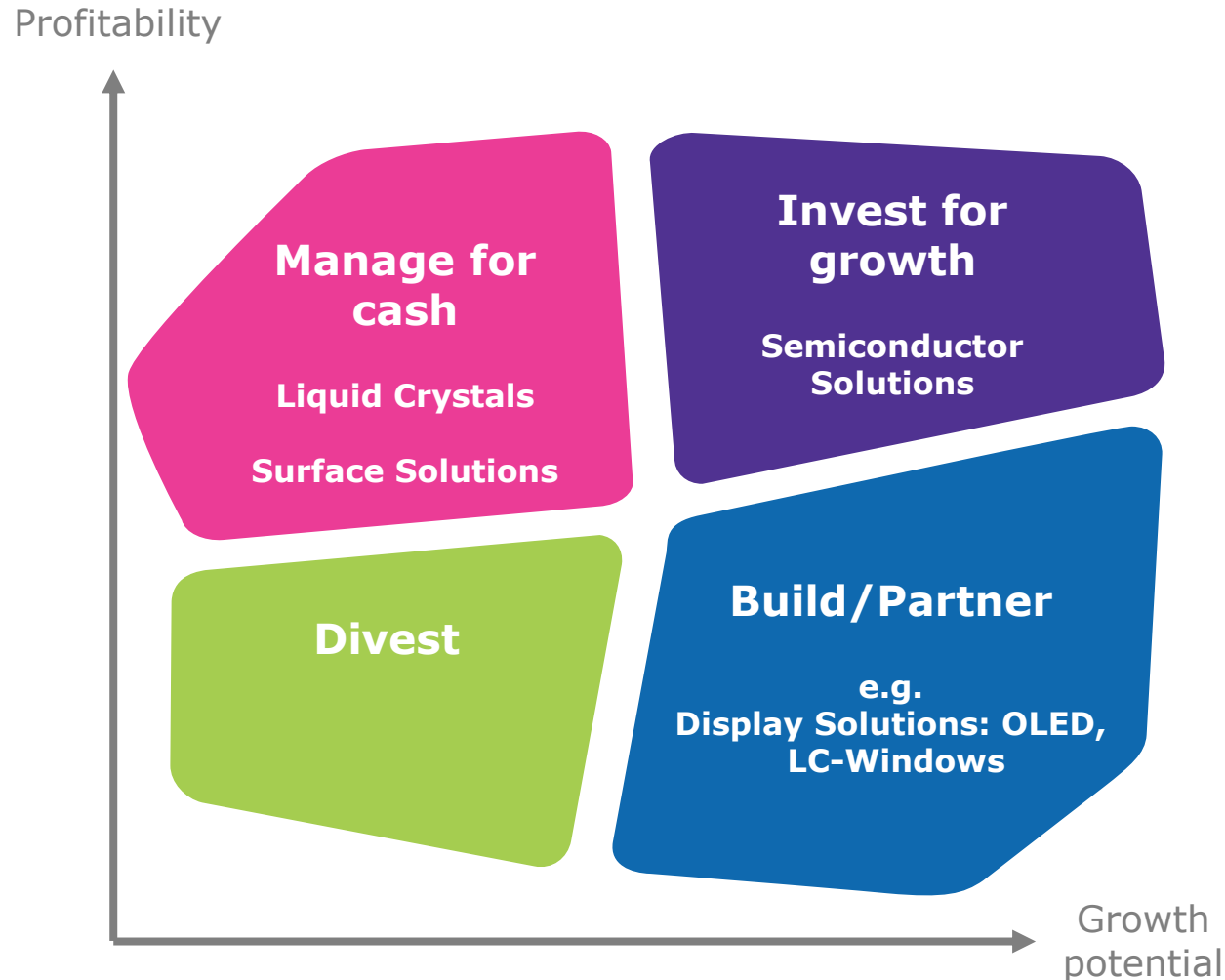


- Liquid crystals (LC) and photoresists for TVs, smartphones and tablet computers
- Other display and non-display applications (e.g. LC Windows)
- Organic and inorganic light emitting diodes



- Effect pigments and functional materials for coatings, plastics, printing and cosmetics
- Functional materials for cosmetics & special applications
- Functional materials for electronics and energy solutions

Business portfolio management drives capital allocation



Invest for growth

- Strong and sustainable market growth
- Leading positions and attractive growth opportunities

Manage for cash

- Mature and lucrative market segments
- Invest in extension, while managing for profit

Build or Partner

- Early industry cycles with strong potential
- Strictly prioritize and diversify risk

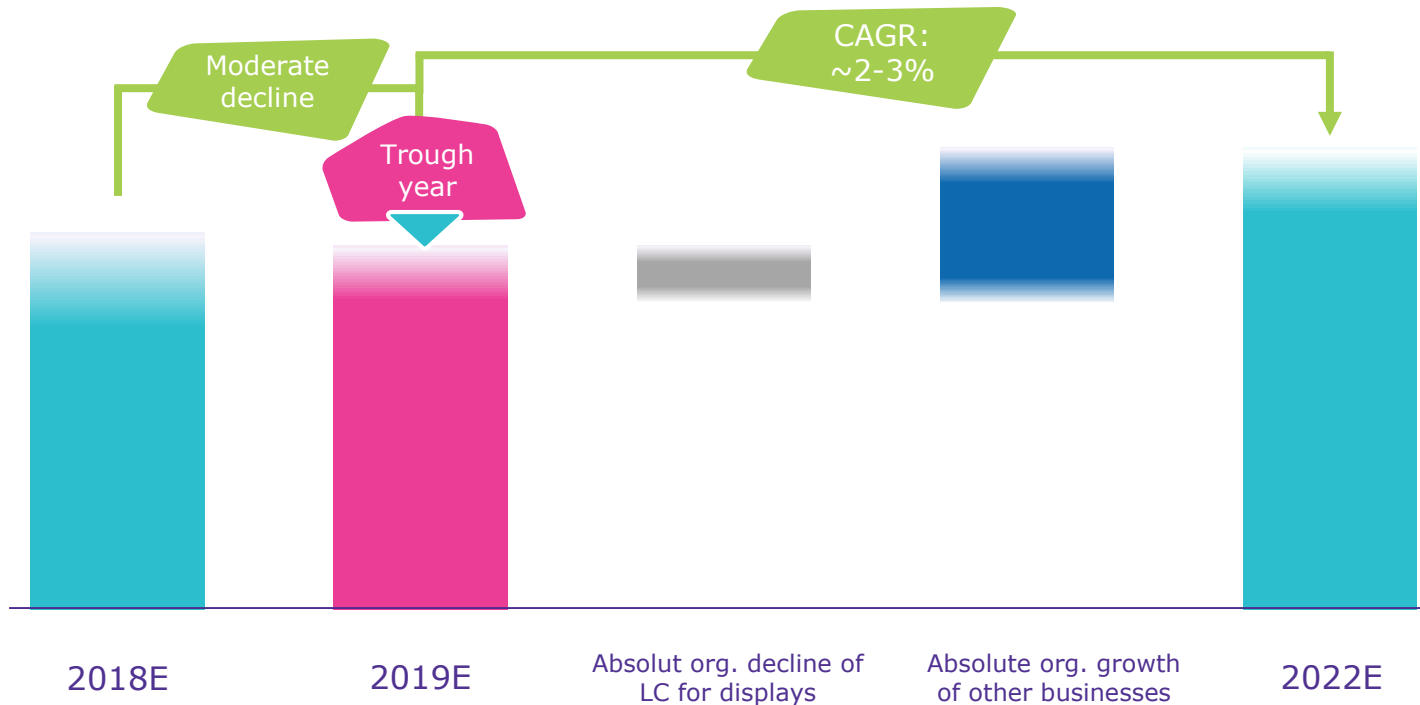
Divest

- Regular review for better strategic owner

Performance Materials

Return to sales growth after 2019

Performance Materials sales development, in €m



2019-2022 sales growth trajectory



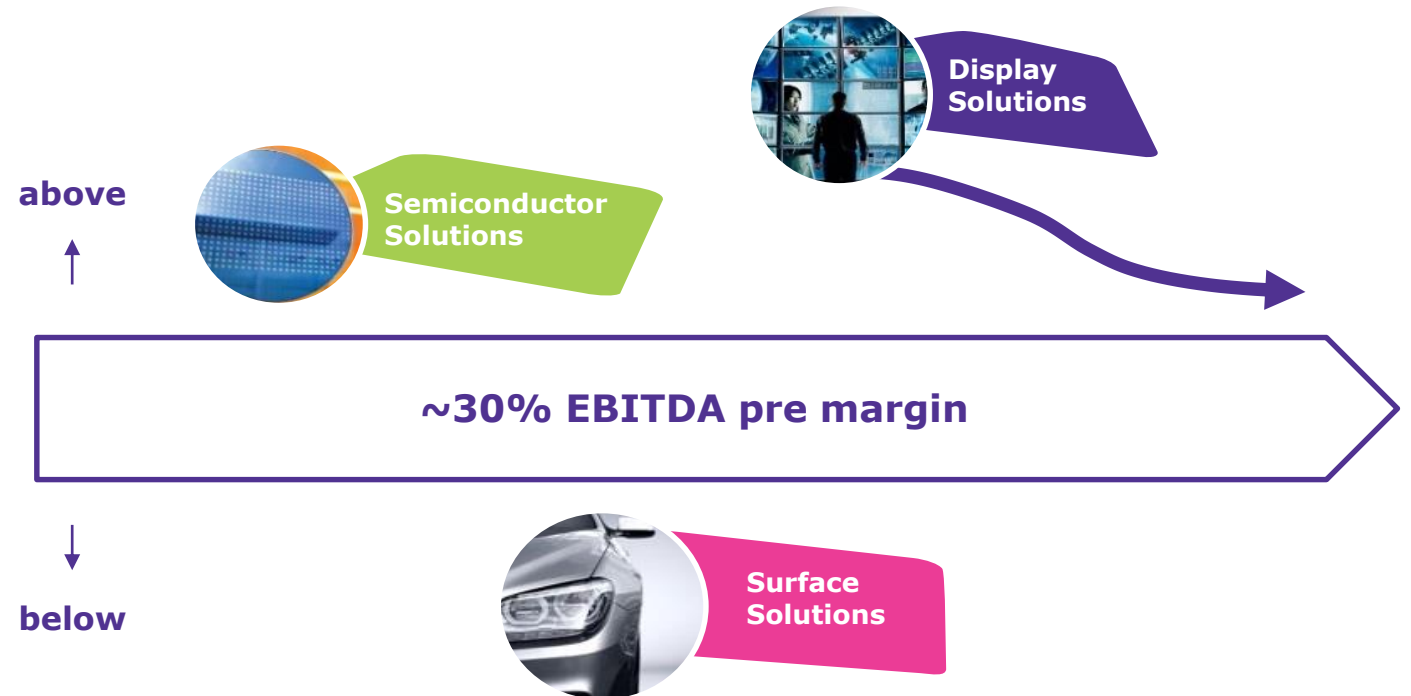
After 2019 sales growth of Semiconductor & Surface Solutions, OLED and Photoresists will overcompensate the decline of Liquid Crystals for displays

Margins of PM will remain around 30% in the long-run

profitability indication

- Display Solutions will adjust towards PM average margin
- Restructuring, focus and cost discipline to support margin
- Strong FX exposure will cause fluctuations

EBITDA pre margin indication by business





05

CONCLUSION & OUTLOOK

Group Full-year 2018 guidance¹

Net sales:

Organic +4% to +6% YoY

FX ~ -3% to -5% YoY

~ € 14.4 – 14.8 bn

EBITDA pre:

Organic -1% to -3% YoY

FX -8 to -10% YoY

~ € 3,700 – 3,900 m

EPS pre:

~ € 5.00 – 5.30

Group

2019: Entering the Growth Phase



Net sales



EBITDA pre



EBITDA pre
margin



- Increasing sales from **Mavenclad and Bavencio**
- Stringent management of **R&D and M&S expenses**



- Sustaining **market outperformance**
- **Investing** into **innovation**



- Managing the **trough year**
- Preparing for return to growth



- **2019 earnings growth confirmed** and well-founded

