

BACK TO PROFITABLE GROWTH

Group FY 2019 results

- Presentation for the media -

Stefan Oschmann, Chairman of the Executive Board & CEO Marcus Kuhnert, CFO

March 5, 2020

Disclaimer

Cautionary Note Regarding Forward-Looking Statements and financial indicators

This communication may include "forward-looking statements." Statements that include words such as "anticipate," "expect," "should," "would," "intend," "plan," "project," "seek," "believe," "will," and other words of similar meaning in connection with future events or future operating or financial performance are often used to identify forward-looking statements. All statements in this communication, other than those relating to historical information or current conditions, are forward-looking statements. We intend these forward-looking statements to be covered by the safe harbor provisions for forward-looking statements in the Private Securities Litigation Reform Act of 1995. These forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond control of Merck KGaA, Darmstadt, Germany, which could cause actual results to differ materially from such statements.

Risks and uncertainties include, but are not limited to: the risks of more restrictive regulatory requirements regarding drug pricing, reimbursement and approval; the risk of stricter regulations for the manufacture, testing and marketing of products; the risk of destabilization of political systems and the establishment of trade barriers; the risk of a changing marketing environment for multiple sclerosis products in the European Union; the risk of greater competitive pressure due to biosimilars; the risks of research and development; the risks of discontinuing development projects and regulatory approval of developed medicines; the risk of a temporary ban on products/production facilities or of non-registration of products due to non-compliance with quality standards; the risk of an import ban on products to the United States due to an FDA warning letter; the risks of dependency on suppliers; risks due to product-related crime and espionage; risks in relation to the use of financial instruments; liquidity risks; counterparty risks; market risks; risks of impairment on balance sheet items; risks from pension obligations; risks from product-related and patent law disputes; risks from antitrust law proceedings; risks from drug pricing by the divested Generics Group; risks in human resources; risks from e-crime and cyber attacks; risks due to failure of business-critical information technology applications or to failure of data center capacity; environmental and safety risks; unanticipated contract or regulatory issues; a potential downgrade in the rating of the indebtedness of Merck KGaA, Darmstadt, Germany; downward pressure on the common stock price of Merck KGaA, Darmstadt, Germany and its impact on goodwill impairment evaluations as well as the impact of future regulatory or legislative actions.

The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included elsewhere, including the Report on Risks and Opportunities Section of the most recent annual report and quarterly report of Merck KGaA, Darmstadt, Germany. Any forward-looking statements made in this communication are qualified in their entirety by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us or our business or operations. Except to the extent required by applicable law, we undertake no obligation to update publicly or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.

This presentation contains certain financial indicators such as EBITDA pre exceptionals, net financial debt and earnings per share pre exceptionals, which are not defined by International Financial Reporting Standards (IFRS). These financial indicators should not be taken into account in order to assess the performance of Merck KGaA, Darmstadt, Germany, in isolation or used as an alternative to the financial indicators presented in the consolidated financial statements and determined in accordance with IFRS. The figures presented in this statement have been rounded. This may lead to individual values not adding up to the totals presented.



Agenda

- Strategic review
- **2** Financial overview
- Outlook and guidance





Guidance delivered

2019 Guidance

2019 Results

Net sales

€15.7 - 16.3 bn

€16.2 bn



EBITON pre

€4,230 - 4,430

€4,385 m



EPS pre

€5.30 - 5.65

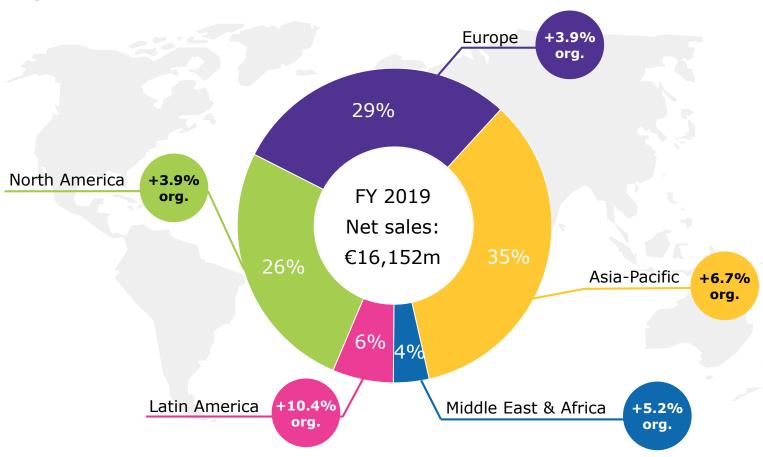
€5.56





All regions drive organic growth

Regional breakdown of net sales [€ m]

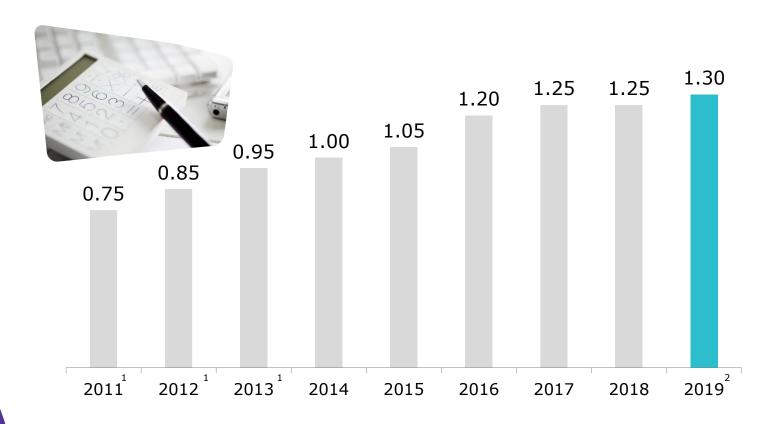


Regional organic development

- Europe with solid growth driven by strong Life Science; Mavenclad[®]
 ramp-up offsetting Rebif[®] decline
- North America reflects strong Life Science; Mavenclad [®], Fertility and Bavencio [®] mitigate ongoing Rebif [®] decline
- Strong APAC fueled by double-digit growth of Life Science and Healthcare, especially Glucophage[®] and Erbitux[®]; OLED mitigating liquid crystals decline
- LATAM with double-digit growth reflecting strong demand in Healthcare's core business and Life Science
- Middle East and Africa driven by solid demand in Neurology & Immunology and Fertility

Sustainable dividend growth

Dividend¹ development 2011-2019



2019 dividend

- Dividend of €1.30 (+4% YoY) per share proposed² for 2019
- Payout ratio of 23.4% of EPS pre in 2019; we aim at 20–25% of EPS pre
- •Dividend yield³ of 1.2%



¹Adjusted for share split, which has been effective since June 30, 2014; ²Final decision is subject to Annual General Meeting approval; ³Calculated with 2019 year-end share price of € 105.35 per share.

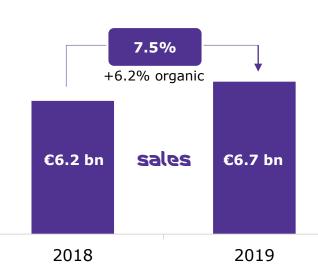
Healthcare: Mavenclad[®] and core business fuel strong organic growth

Business Performance

- Strong organic sales growth of 6.2%
- Neurology & Immunology returns to growth over the full year with strong Mavenclad® performance (net sales FY2019: €321 m)
- Core business with organic growth of 2.1% driven by strong demand in General Medicine, Fertility portfolio and Erbitux®
- Higher EBITDA pre from strong top-line performance, stringent cost management and non-recurring income
- Strategic alliance with GlaxoSmithKline to develop and commercialize Bintrafusp alfa (M7824) announced in February 2019







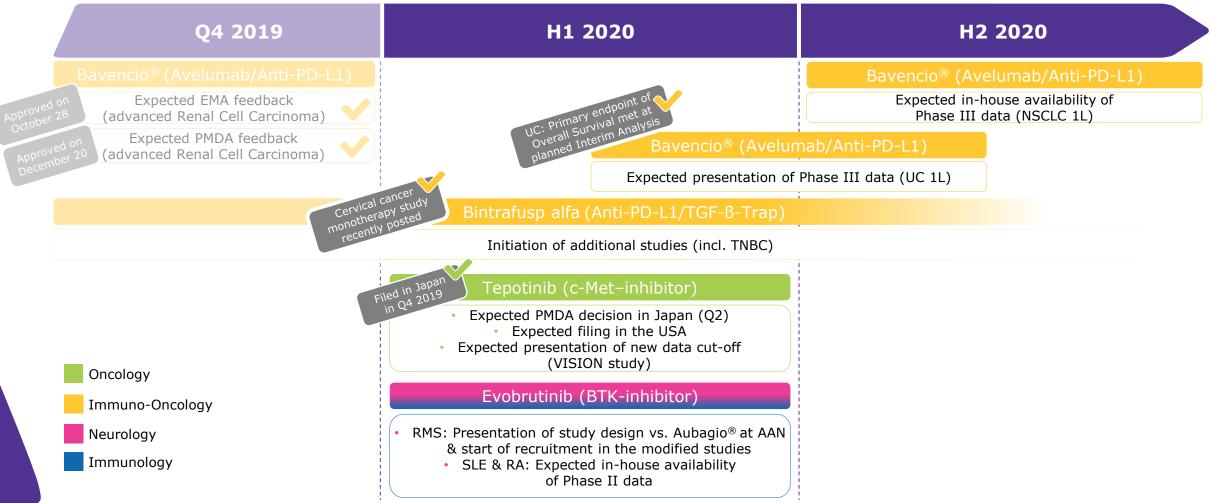
Pipeline

- Mavenclad®: now approved in 75 countries
- Bavencio®:
 - Primary endpoint (OS) met in 1L urothelial carcinoma/Bladder 100 study¹
 - Approved in combination with Inlyta[®] for 1L advanced renal cell carcinoma by US FDA, EMA & PMDA
- Tepotinib:
 - Filed in Japan in Q4 2019 under Sakigake
 - Granted Breakthrough Designation by FDA (NSCLC, MET exon 14 skipping alterations)
- Bintrafusp alfa: five pivotal studies (1L NSCLC vs pembrolizumab², Stage III NSCLC³, 1L & 2L Biliary Tract⁴, & 2L Cervical⁵) on track, several safety run in & signal finding studies recently initiated or in planning⁶
- **Evobrutinib:** initiated pivotal Ph III program in Relapsing Multiple Sclerosis



¹PR published on January 6, 2020; ²INTR@PID Lung 037; ³INTR@PID Lung 005; ⁴INTR@PID BTC 047 & 055; ⁵NCT04246489 posted on www.clinicaltrials.gov in January 2020, not yet recruiting; ⁶incl. INTR@PID Lung 024 and TNBC (Triple Negative Breast Cancer); Acronyms: FDA – US Food and Drug Administration; EMA – European Medicines Agency; OS – Overall Survival; PMDA - Pharmaceuticals and Medical Devices Agency Japan

Pipeline: Upcoming Healthcare catalysts mark progress across all therapeutic areas





Life Science: Continued above-market performance

Business Performance

- Above-market growth in Life Science driven by all businesses and regions
- Excellent performance across all businesses, with Process Solutions once again achieving double-digit organic growth
- Strong EBITDA pre growth reflects robust topline growth, cost control, and investments in eCommerce and CAPEX







Innovation

- Continued flow of new products in Process
 Solutions, supporting bioprocessing, single-use and FloDesign Sonics
- Strong growth in Applied Solutions with further development of Milli-Q Platform (IoT) and the launch of Steritest™ for Biomonitoring
- Further strengthening of eCommerce platform within Research Solutions, driven by new eCommerce platform development and partnership with Alibaba in China



We are well-positioned to shape the pharmaceutical value chain of the future

R&D Surrogate More targeted, more Biomarkers, patient endpoints predictive, higher throughput stratification Machine learning, high-throughput biology, Launch and beyond organ-on-a-chip In silico modeling, high-content Genomics, transcriptomics, screening Clinical metabolomics Rapid lot release testing Preclinical Continuous bioprocessing

> Flexible intensified

manufacturing

Manufacturing Intensified, precise, and realtime



Discovery

mAb modalities

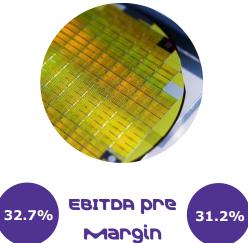
Massively parallel

upstream optimization

Performance Materials: Acquisitions successfully closed – delivering on Bright Future transformation

Business Performance

- Semiconductor Solutions outperforming weaker market
- OLED with ongoing strong momentum driven by increasing demand in China
- Liquid crystals as expected: back to negative underlying trajectory with high comparables in prior year
- Organic EBITDA pre reflects ongoing LC decline and temporary market weakness in Semiconductor and Surface Solutions mitigated by Bright Future measures



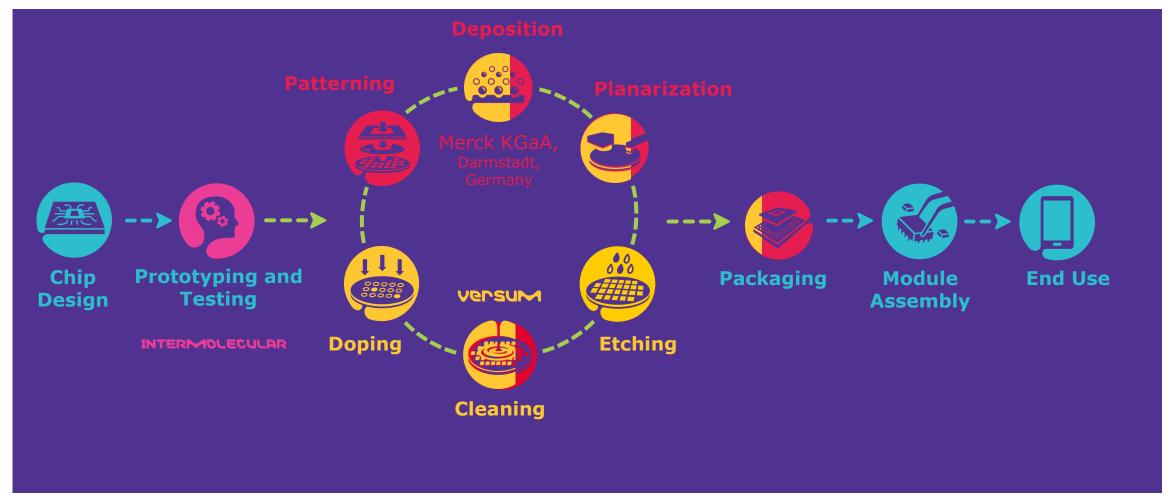


Transformation

- Acquisitions of Versum Materials and Intermolecular successfully closed
 - Versum as leading supplier of high-purity semiconductor materials, gases and equipment
 - Intermolecular leading in advanced materials innovation
 - → Combined position creating a leading electronics materials player
- Innovation Hub in Guangzhou opened
- Site in Chilworth (UK) closed, overall transformation on track



Semiconductor Solutions even stronger with Versum and Intermolecular







FY 2019 Financials: Overview

Key figures

[€m]	FY 2018	FY 2019	Δ
Net sales	14,836	16,152	8.9%
EBITDA pre Margin (in % of net sales)	3,800 <i>25.6</i> %	4,385 27.1%	15.4%
EPS pre	5.10	5.56	9.0%
Operating cash flow	2,219	2,856	28.7%

[€m]	Dec. 31, 2018	Dec 31, 2019	Δ
Net financial debt	6,701	12,363	84.5%
Working capital	3,486	3,944	13.2%
Employees	51,749	57,071	10.3%

- All business sectors drive net sales growth
- Increasing EBITDA pre & margin reflect strong top-line growth, milestone payments, deferred income and cost consciousness;
 LS with strong operating leverage
- Strong operating cash flow due to higher EBITDA pre, GSK upfront and milestone payments
- Working capital driven by increased inventory levels, Versum acquisition and FX
- Higher net financial debt and increased headcount reflect Versum acquisition

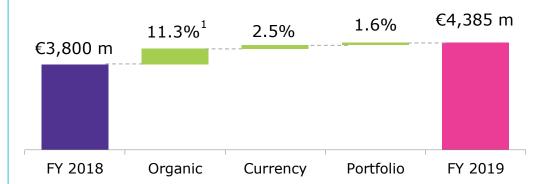


Healthcare and Life Science fuel strong organic top- and bottom-line performance, supported by FX tailwinds and Portfolio

FY 2019 YoY net sales	Organic	Currency	Portfolio	Total
Healthcare	6.2%	1.3%	0.0%	7.5%
Life Science	9.0%	2.6%	-0.6%	11.0%
Performance Materials	-6.5%	3.1%	10.4%	7.0%
Group	5.3%	2.1%	1.4%	8.9%

- Healthcare with strong growth fueled by Mavenclad[®] ramp-up, strong demand for General Medicine and Erbitux[®] in China and solid Fertility portfolio
- All businesses and regions drive strong Life Science performance, especially Process Solutions with double-digit growth
- Performance Materials organic decline due to liquid crystals, soft market demand in Semiconductor and Surface Solutions; OLED with strong demand

FY YoY EBITDA pre



- Organic EBITDA pre fueled by strong top-line growth, milestone payments and deferred income in Healthcare, sustained strong performance of Life Science, more than offset ongoing liquid crystal price decline
- Positive FX impact on EBITDA pre due to U.S. dollar and major Asian currencies



¹Thereof IFRS 16 effect with +3.7 percentage points (~ €140 m); Totals may not add up due to rounding

Reported Figures

Reported results

[€m]	FY 2018	FY 2019	Δ
EBIT	1,727	2,120	22.8%
Financial result	-266	-385	44.6%
Profit before tax	1,461	1,735	18.8%
Income tax	-368	-440	19.7%
Effective tax rate	25.2%	25.3%	
Net income ¹	3,374	1,320	-60.9%
EPS [€]	7.76	3.04	-60.8%

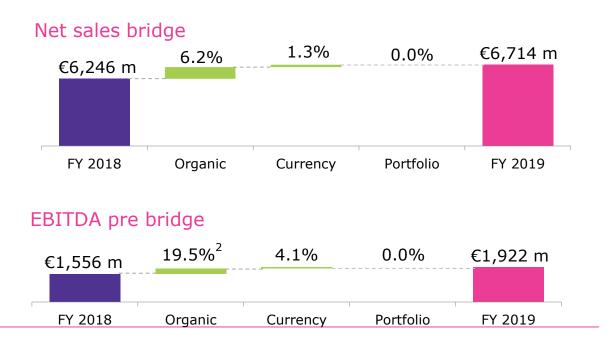
- Higher EBIT due to strong top-line contribution from LS and HC, cost consciousness, milestone payments and GSK deferred income
- Increase in financial result reflects higher interest expense due to Versum financing and revaluation of F-Star purchase option
- Effective tax rate within guidance range of ~24-26%
- Lower net income and EPS reflect last year's high base due to Consumer Health divestment



Healthcare: Significant contribution from Mavenclad[®] and Bavencio[®]; solid core business

Healthcare P&L

[€m]	FY 2018 ¹	FY 2019
Net sales	6,246	6,714
Marketing and selling	-2,349	-2,305
Administration	-329	-344
Research and development	-1,687	-1,666
EBIT	731	1,149
EBITDA	1,492	1,896
EBITDA pre	1,556	1,922
Margin (in % of net sales)	24.9%	28.6%



- Solid foundation due to growing core business, further supported by acceleration of Mavenclad[®] and Bavencio[®] launches
- Mavenclad[®] with continued strong uptake across all regions is offsetting strong Rebif[®] decline
- Bavencio[®] ramp-up on track; Erbitux[®] fueled by China reimbursement, still facing ongoing competition and price pressure in major markets
- M&S decrease due to resource reallocation from core business to new product launches and stringent cost management
- Higher EBITDA pre driven by strong top-line performance, cost management, non-recurring income [Bavencio®(~€90 m) milestone payments, GSK deferred income (~€90 m) and Peg-Pal (~€75 m)] and IFRS 16 effect, outweighing last years' Peg-Pal milestone (~€50 m)

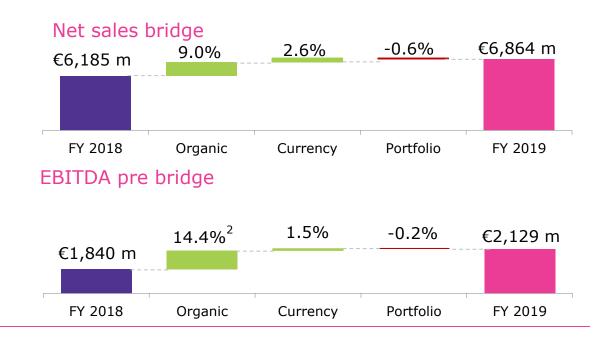


¹LY numbers have been modified, due to disclosure changes of adjustments; ²Thereof IFRS 16 effect with +3.3 percentage points (~ €50 m); Totals may not add up due to rounding

Life Science: All businesses across all regions drive ongoing strong top- and bottom-line performance

Life Science P&L

[€m]	FY 2018 ¹	FY 2019
Net sales	6,185	6,864
Marketing and selling	-1,777	-1,924
Administration	-335	-341
Research and development	-251	-276
EBIT	1,036	1,280
EBITDA	1,755	2,070
EBITDA pre	1,840	2,129
Margin (in % of net sales)	29.8%	31.0%



- Process Solutions posts double-digit growth: BioProcessing as main contributor with ongoing strong demand across all major regions, especially in North America and China
- Solid organic growth of Applied Solutions driven by Advanced Analytical and Lab Water, fueled by all major regions

- Research Solutions closes year with moderate growth, driven by all businesses and regions, especially APAC and North America
- Higher M&S in line with volume growth
- EBITDA pre reflects operational leverage from strong top-line growth and IFRS 16 effect

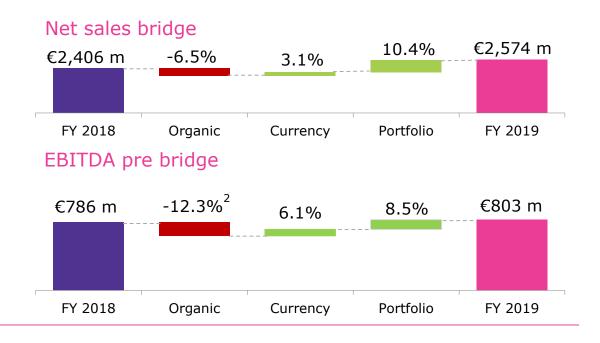


¹LY numbers have been modified, due to disclosure changes of adjustments; ²Thereof IFRS 16 effect with +3.1 percentage points (~ €60 m); Totals may not add up due to rounding

Performance Materials: LC back to negative underlying trajectory amid softness in Semiconductor and Surface

Performance Materials P&L

[€m]	FY 2018 ¹	FY 2019
Net sales	2,406	2,574
Marketing and selling	-255	-329
Administration	-107	-118
Research and development	-242	-267
EBIT	508	307
EBITDA	769	637
EBITDA pre	786	803
Margin (in % of net sales)	32.7%	31.2%



Comments

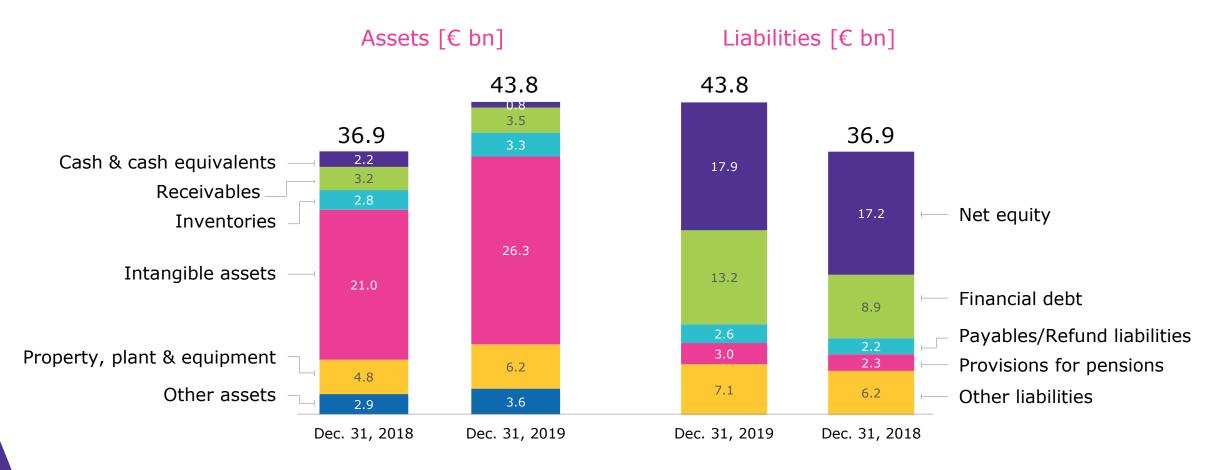
- Moderate sales growth reflects portfolio effect from Versum and positive FX, overcompensating organic decline
- Display Solutions as expected: LC back to negative underlying trajectory with high comparison last year base, OLED again strong
- Semiconductor Solutions perform above the ongoing temporarily weak market demand
- Surface Solutions reflects ongoing weak demand of automotive market

and increased industrials portfolio-focus amid Bright Future transformation

- M&S reflects Versum acquisition and diligent underlying cost management
- Provisions related to Bright Future program drives R&D increase; adjusted for EBITDA pre - decrease in R&D reflecting cost control
- Organic EBITDA pre due to reduced organic top line and negative business mix; Absolute EBITDA pre reflects Versum acquisition



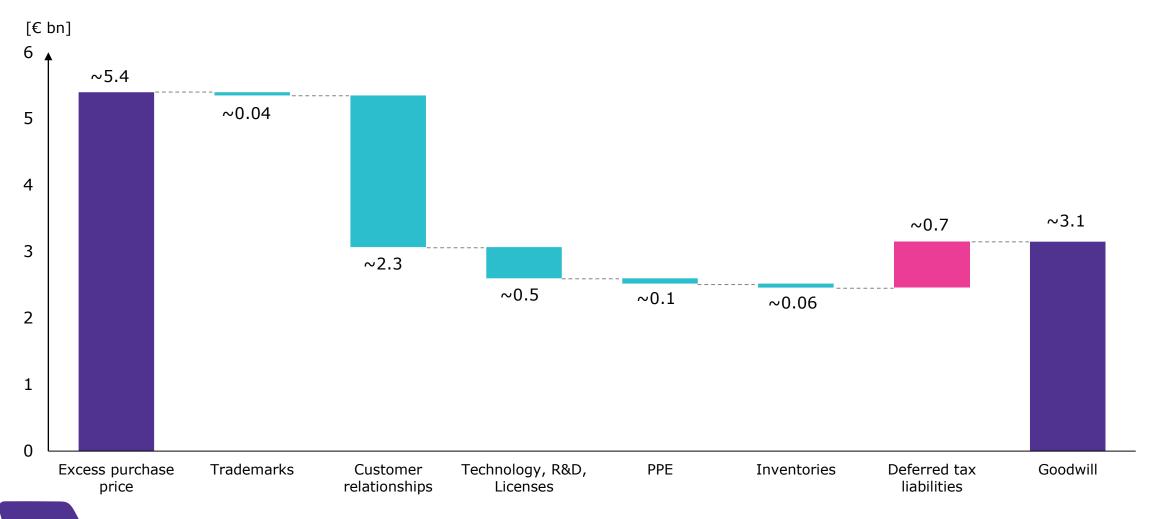
Balance sheet – Reflecting Versum acquisition



- First-time consolidation of Versum impacts balance sheet
- Intangible assets contain €17.1 bn goodwill, €7.0 bn customer relationships and trademarks
- Increase in equity mainly driven by profit after tax and FX translations, partially offset by dividends and actuarial loss (equity ratio of 40.9%)
- Financial debt increase reflects Versum financing



Versum balance sheet effects







Cash Flow Statement

FY 2019 – cash flow statement

[€m]	FY 2018	FY 2019	Δ
Profit after tax	3,396	1,324	-2,072
D&A	1,812	1,944	132
Changes in provisions	199	153	-45
Changes in other assets/liabilities	-288	-391	-103
Other operating activities	-2,722	-4	2,718
Changes in working capital	-178	-169	8
Operating cash flow	2,219	2,856	637
Investing cash flow	2,191	-6,153	-8,344
Thereof CAPEX on PPE	-879	-782	97
Financing cash flow	-2,825	1,902	4,727

Cash flow drivers

- Last year's profit after tax driven by Consumer Health disposal, which was neutralized in other operating activities
- D&A increase mainly due to IFRS 16 reclassification
- Changes in other assets/liabilities due to Versum (share based payment and severance payments)
- Investing cash flow driven by Versum acquisition and Consumer Health disposal last year
- Higher financing cash flow reflects the issuance of new bonds (€3.5 bn) partially offset by repayment of due bonds (€1.3 bn); last year is driven by repayment of bank loans and commercial paper





Group COVID-19 Update

Assumptions as of mid February

If COVID-19 outbreak peaks in Q1, eases in Q2 and the situation is back to normal in H2, the impact on the Group and its sectors is estimated to be the following:

GLOUD

- Around -1% on full year net sales mainly from China
- Impact in Q1, improvement in Q2, and normal business dynamics in H2 2020

неаlthcare

Mid to high double-digit € million impact; mainly in Oncology and Fertility

Life science

Mid double-digit € million impact; all businesses affected, mainly Research Solutions

performance materials

Up to mid double-digit € million impact; main effect in Display Solutions

Full year effect of around -1% on net sales reflected in qualitative outlook for 2020



Group

Full-year 2020 guidance

Net sales:

Solid organic sales growth, Versum growth contribution in the mid-single digits and slight FX headwinds of 0% to -3% YoY

EBITDA pre:

Strong organic growth, mid-single digit growth from Versum Slight FX headwinds of 0% to -3% YoY



Group

2020 business sector guidance¹

Healthcare



Net sales

- Solid Organic growth
- Base business organically stable
- New products with strong contribution

EBITDA pre

- Solid organic growth
- Driven by Mavenclad and Bavencio contribution and continued cost discipline
- Moderate adverse FX impact

Life Science



- Strong organic growth
- Process Solutions main growth driver but all businesses contributing

EBITDA pre

- Strong organic growth
- Slight margin progression
- Slight adverse FX impact

Performance Materials

Net sales

- Slight organic growth
- Strong contribution from Semiconductor Solutions
- Display declining, driven by LC
- Low- to mid-thirties contribution from Versum

EBITDA pre

- Slight organic growth
- Semiconductor as well as cost management compensating LC price decline
- Slight adverse FX impact
- Low- to mid-thirties contribution from Versum



Future technologies – three examples

