

Q1 2018 Financial Summary for Investors and Analysts

A solid Start into the year

- Healthcare – 27th consecutive quarter of organic growth; Mavenclad & Bavencio on track
- Life Science – Seamless Sigma integration; strong organic business performance
- Performance Materials – Solid growth in Semiconductor Solutions and OLED; LC decline as expected
- 3.5% organic sales growth; EBITDA pre down 18% to €1,015 m (org. -8%)
- Dividend growth sustained – AGM approved 1.25€ dividend per share
- Organic FY 2018 guidance confirmed* – EBITDA pre: €3,750 – 4,000 m

Overview Financials

Q1 2018 Overview

- Organic sales growth of Life Science and Healthcare more than offset by FX headwinds and LC decline
- EBITDA pre & margin as well as EPS pre decrease driven by LY one-time effects, FX headwinds and LC market share decline
- Operating cash flow reflects business performance and higher income tax payments
- Working capital reflects LY Glucophage repatriation and business dynamics

Q1 2018 Balance Sheet

- Total assets about stable, while equity ratio increases to 40.1%
- Reduction in intangible assets mainly reflects D&A and FX (~ -€700 m)
- Net financial debt reduced by €170 m
- Pension provisions down due to increased interest environment

Q1 2018 Cash flow Statement

- Profit after tax reflects lower EBIT
- LY changes in provisions contained favorable LTIP provisions
- Changes in other assets/liabilities driven by bonus payments to US employees and higher income tax payments
- Changes in working capital reflects LY Glucophage repatriation
- LY investing cash flow included Vertex oncology in-licensing agreement
- Financing cash flow reflects repayment of USD400 m bond, mitigated by increased bank loan and commercial paper

*Guidance excludes Consumer Health; further details are given on page 3

Q1 2018 Business Overview

Healthcare

- **Continued solid top line performance while profitability declines in relation to FX headwinds and LY's substantial favorable one-time effects**
- Net sales deviation YoY: organic +1.8%, FX -7.2%, portfolio 0.0%
- Organic growth supported by strong Fertility and Consumer Health; Mavenclad and Bavencio contribution on track
- MS franchise back to growth in Europe driven by Mavenclad launch
- Rebif with ongoing volume and price declines in Europe and in line with Interferons market development in North America
- Erbitux shows moderate organic decline, facing ongoing competition and price pressure in major markets
- Marketing & selling and R&D reflect disciplined launch and pipeline investments, mitigated by supporting FX
- Profitability reflects significant FX headwinds and unfavorable product mix mitigated by Kuvan milestone payment (+€50 m) – LY included royalty income swap (€116 m) and Bavencio Milestone payment (€37 m)

Life Science

- **Continued strong organic growth offset by FX**
- Net sales deviation YoY: organic +8.8%, FX -8.4%, portfolio 0.0%
- Process Solutions with double-digit growth driven by all businesses, especially high demand for single use, cell-culture media and services
- Applied Solutions shows high single-digit organic growth, fueled by all major businesses across all major regions
- Research Solutions posts solid organic growth from high demand across all businesses, mainly laboratory and specialty chemicals
- Marketing & selling organically flat with additional benefit from FX
- Slight increase in profitability as solid organic growth including synergy realization are mostly offset by FX

Performance Materials

- **Organic growth of Semiconductor Solutions and OLED mitigate ongoing LC market share decline**
- Net sales deviation YoY: organic -4.0%, FX -8.5%, portfolio 0.0%
- Strong growth of Semiconductor Solutions and OLED more than offset by ongoing LC market share decline
- Strong demand for innovative UB-FFS technology
- Semiconductor Solutions with above-market growth due to strong demand from all major material classes, esp. dielectric materials
- Surface Solutions with slight organic decline reflects tough comparables from last year
- Lower profitability reflects FX headwinds, negative business mix and Liquid Crystals price decline

Guidance for 2018

Group incl. CH¹:

- EBITDA pre: Organic -1% to -3% YoY, FX -5 to -7% YoY, ~ €3,950 – 4,150 m¹
- Net sales: Organic +3% to +5% YoY, FX ~ -4% to -6% YoY, ~ €15.0 – 15.5 bn¹
- EPS pre: ~ €5.30 – 5.65¹

Group excl. CH:

- EBITDA pre: Organic -1% to -3% YoY, FX -5 to -7% YoY, ~ €3,750 – 4,000 m
- Net sales: Organic +3% to +5% YoY, FX ~ -4% to -6% YoY, ~ €14.0 – 14.5 bn
- EPS pre: ~ €5.00 – 5.40

Disposal of Consumer Health:

EBITDA pre: ~€170-200m²

Net sales: ~€0.9-1.0 bn²

Outlook by business sector:

Healthcare

- Net sales: Moderate organic growth: ongoing organic Rebif decline offset by growth in other franchises; Full-year contributions from 2017 launches
- EBITDA pre:
 - Organic -1% to -2% YoY, FX -5% to -7% YoY
 - ~ €1,770 – 1,830 m (incl. CH), ~ €1,580 – 1,650 m (excl. CH)

Life Science

- Net sales: Organic growth again slightly above market; driven by Process Solutions; Full realization of expected topline synergies
- EBITDA pre:
 - Organic ~ +8% YoY, FX -4% to -6% YoY
 - ~€1,820 - 1,870 m

Performance Materials

- Net sales: Slight to moderate organic decline; Volume increases in all businesses; Continuation of Liquid Crystals market share decline
- EBITDA pre:
 - Organic -14% to -16% YoY, FX -8% to -10% YoY
 - ~€725 – 765 m

¹Constant portfolio; ²Indication only; the actual impact and 2017 restatement may differ as restatement process is currently ongoing; other business sectors may also see minor adjustments due to contractual agreements

Additional financial guidance

- | | |
|--------------------------------|-------------------------------------------------------|
| ▪ Corporate & Other EBITDA pre | ~ -€320 – -360 m |
| ▪ Interest result | ~ -€230 – -240 m |
| ▪ Underlying tax rate | ~24% to 26% |
| ▪ Capex on PPE | ~ €900 – 950 m |
| ▪ Hedging/USD assumption | 2018 hedge ratio ~50-60%
at EUR/USD ~ 1.19 to 1.20 |
| ▪ 2018 Ø EUR/USD assumption | ~ €1.19 – 1.23* |

*Exacerbated by devaluation of important Emerging Market currencies; FX effect on EBITDA-pre -5% to -7%.

Merck KGaA

Darmstadt, Germany

Group Q1 2018

€m	Group			Healthcare			Life Science			Performance Materials			Corporate/Others		
	Q1 2017	Q1 2018	% YoY	Q1 2017	Q1 2018	% YoY	Q1 2017	Q1 2018	% YoY	Q1 2017	Q1 2018	% YoY	Q1 2017	Q1 2018	% YoY
Net sales	3.861	3.691	-4%	1.735	1.640	-5%	1.481	1.487	0%	645	564	-12%			
% organic			3%			2%			9%			-4%			
% FX			-8%			-7%			-8%			-8%			
% portfolio			0%			0%			0%			0%			
EBIT	755	518	-31%	445	211	-53%	236	273	16%	195	136	-30%	-122	-102	-16%
Depreciation and amortization	448	428	-4%	184	190	3%	194	169	-13%	62	57	-8%	9	13	43%
EBITDA	1.203	946	-21%	629	401	-36%	430	442	3%	257	192	-25%	-113	-89	-21%
Adjustments in EBITDA	38	70	85%	4	29	>100%	16	13	-17%	7	3	-53%	11	24	>100%
EBITDA pre	1.240	1.015	-18%	633	430	-32%	445	455	2%	263	196	-26%	-101	-66	-35%
Net financial debt*	10.144	9.974	-2%												

* as per 31 December

Totals may not add up due to rounding

Group

P&L Group	Q1 2017	Q1 2018	% YoY
Net sales	3.861	3.691	-4%
Cost of sales	-1.296	-1.320	2%
thereof: intangibles amortization	-47	-43	-8%
Gross profit	2.565	2.371	-8%
Marketing and selling expenses	-1.168	-1.106	-5%
thereof: intangibles amortization	-259	-246	-5%
Administration	-242	-228	-6%
Impairment losses	-	-3	n.m.
Other operating income/expenses	95	-1	n.m.
Research and development	-495	-514	4%
EBIT	755	518	-31%
Depreciation and amortization	448	428	-4%
EBITDA	1.203	946	-21%
Adjustments in EBITDA	38	70	85%
EBITDA pre	1.240	1.015	-18%
Financial result	-69	-62	-10%
Profit before tax	686	456	-34%
Income tax	-161	-114	-30%
Profit after tax discontinued operations	0	0	n.m.
Profit after tax	524	342	-35%
Non-controlling interests	-2	-1	-44%
Net income	523	341	-35%
Number of theoretical shares in million	434,8	434,8	
EPS in €	1,20	0,78	-35%
EPS pre in €	1,80	1,41	-22%

Totals may not add up due to rounding

Healthcare

P&L Healthcare	Q1 2017	Q1 2018	% YoY
Net sales	1.735	1.640	-5%
Cost of sales	-371	-394	6%
thereof: intangibles amortization	0	-1	n.m.
Gross profit	1.364	1.246	-9%
Marketing and selling expenses	-656	-636	-3%
thereof: intangibles amortization	-140	-139	-1%
Administration	-77	-81	6%
Impairment losses	-	-1	n.m.
Other operating income/expenses	191	68	-64%
Research and development	-376	-385	3%
EBIT	445	211	-53%
Depreciation and amortization	184	190	3%
EBITDA	629	401	-36%
Adjustments in EBITDA	4	29	>100%
EBITDA pre	633	430	-32%

Totals may not add up due to rounding

Life Science

P&L Life Science	Q1 2017	Q1 2018	% YoY
Net sales	1.481	1.487	0%
Cost of sales	-622	-650	4%
thereof: intangibles amortization	-15	-14	-7%
Gross profit	859	837	-3%
Marketing and selling expenses	-449	-408	-9%
thereof: intangibles amortization	-116	-104	-10%
Administration	-70	-70	0%
Impairment losses	-	-1	n.m.
Other operating income/expenses	-43	-26	-40%
Research and development	-62	-59	-4%
EBIT	236	273	16%
Depreciation and amortization	194	169	-13%
EBITDA	430	442	3%
Adjustments in EBITDA	16	13	-17%
EBITDA pre	445	455	2%

Totals may not add up due to rounding

Performance Materials

P&L Performance Materials	Q1 2017	Q1 2018	% YoY
Net sales	645	564	-12%
Cost of sales	-299	-275	-8%
thereof: intangibles amortization	-31	-28	-10%
Gross profit	346	289	-17%
Marketing and selling expenses	-62	-60	-3%
thereof: intangibles amortization	-3	-3	-11%
Administration	-18	-19	4%
Impairment losses	-	0	n.m.
Other operating income/expenses	-13	-15	13%
Research and development	-58	-59	3%
EBIT	195	136	-30%
Depreciation and amortization	62	57	-8%
EBITDA	257	192	-25%
Adjustments in EBITDA	7	3	-53%
EBITDA pre	263	196	-26%

Totals may not add up due to rounding