

Q1 2016 Financial Summary for Investors and Analysts

Good start into the year

- Healthcare – good organic growth and first Avelumab Phase III combination trial
- Life Science – strong performance continues; Sigma integration on track
- Performance Materials – healthy profitability amid first supply chain destocking
- Acquisition-driven sales growth of 20.5%; EBITDA pre up 27% to €1,084 m
- Deleveraging on track – net financial debt decreases by nearly €600 m
- FY 2016 guidance – net sales: €14.8 – 15.0 bn & EBITDA pre: €4,100 – 4,300m

Overview Financials

Q1 2016 Overview

- EBITDA pre and margin increase driven by Sigma, end of Rebif commission expenses and organic performance
- Strong EPS pre growth due to higher EBITDA pre; LY financial result burdened by LTIP* charges
- Operating cash flow reflects strong business performance; LY impacted by one-time tax payment
- Net financial debt reduction driven by cash-in for Kuvan and operating cash flow
- Working capital reflects increase in business activity

Q1 2016 Balance Sheet

- Total assets decline by 2.2%, equity ratio remains at 33.8%
- Reduction of intangible assets reflects D&A (€0.3 bn) and FX (€0.6 bn)
- FX development accounts for ~€0.6 bn total equity decrease
- Net financial debt reduced by €0.6 bn
- Decline of interest rates increases pension provisions

Q1 2016 Cash flow Statement

- Profit after tax includes gain from Kuvan divestment, which is neutralized in other operating activities
- D&A increases due to Sigma
- Tax payment (Pfizer upfront) burdened changes in other assets/liabilities LY
- Changes in working capital reflect lower payables (Pfizer-Rebif) and higher R&D receivables from Pfizer (avelumab)
- Investing cash flow contains increased Capex and Kuvan divestment; LY with sale of financial assets
- Financing cash flow reflects first repayments of Sigma-related bank loans; LY contains USD bond issuance

*Long Term Incentive Plan

Q1 2016 Business Overview

Healthcare

- **Good organic sales growth amid ramp-up in R&D investments**
- Net sales deviation YoY: organic +5.4%, FX -6.8%, portfolio -1.0%
- Organic growth driven by strong Fertility, GM, CH and Xalkori
- Rebif still impacted by ramp-up of orals in Europe, while U.S. pricing and first contribution from PDP* in Brazil support performance
- Erbitux shows moderate organic growth benefiting from pick-up in Brazil, but also low comparables; EU remains competitive
- Marketing and selling reflect end of commission expenses for Rebif (U.S.) partially offset by reinvestments in sales force and launch preparations
- R&D spend starts to increase as avelumab Phase III trials progress
- EBIT reflects Kuvan disposal gain of €324 m
- Profitability improves mainly due to good organic growth, ceased Rebif commission expenses amid phased R&D cost ramp-up

Life Science

- **A strong start to 2016**
- Net sales deviation YoY: organic +8.9%, FX -1.3%, portfolio 81.6%
- Very strong growth of Process Solutions driven by increasing production of large molecules across global and regional accounts
- Applied Solutions shows moderate organic growth, driven by bio-monitoring products for pharma and demand for analytical testing
- Research Solutions benefits from increased research on biologics as well as solid demand for high-value chemicals
- Absolute costs higher due to Sigma, but improve in relation to sales
- Profitability reflects Sigma, favorable product mix and synergies

Performance Materials

- **Healthy profitability amid destocking of display industry inventories**
- Net sales deviation YoY: organic -2.4%, FX +0.5%, portfolio +2.7%
- Organic growth of OLED, Integrated Circuit Materials, and Pigments mitigates LC softness
- Liquid Crystals impacted by indicated inventory correction in supply chain
- OLED continues to grow on industry capacity expansion and investments
- Integrated Circuit Materials show solid growth mainly driven by dielectric materials for chip production
- Pigments and Functionals post moderate growth esp. due to cosmetic API**
- Marketing and selling reflect contribution from Sigma's SAFC Hitech and sales force IT initiative
- Healthy profitability reflects leading market position with highly differentiated products, despite destocking and negative mix effects

* Productive Development Partnership

** Active pharmaceutical ingredient

Guidance for 2016

Group:

- EBITDA pre: ~ €4,100 – 4,300 m
- Net sales: ~ €14.8 – 15.0 bn
- EPS pre: ~ €5.65 – 6.00

Outlook by business sector:

Healthcare

- Net sales: Slight organic growth, organic Rebif decline, other franchises growing
- EBITDA pre: ~ €1,800 – 1,900m

Life Science

- Net sales: Mid single-digit organic growth, main driver Process Solutions, high double-digit contribution from Sigma
- EBITDA pre: ~ €1,620 – 1,670m

Performance Materials

- Net sales: Organically about stable, including moderate destocking in liquid crystals, growing demand in all businesses
- EBITDA pre: ~ €1,100 – 1,150m

Additional financial guidance

- | | |
|---|--|
| ▪ Corporate & Other EBITDA pre | ~ -€370 – -400 m |
| ▪ Interest result | ~ -€270 – -300 m |
| ▪ Intangibles amortization from Sigma PPA | ~ €250 – 300 m p.a. |
| ▪ Underlying tax rate | ~23% to 25% |
| ▪ Capex on PPE | ~€750 – 800 m |
| ▪ Hedging/USD assumption | 2016 & 2017 hedge rate ~40-45%
at EUR/USD ~1.10 to 1.15 |
| ▪ 2016 Ø EUR/USD assumption | ~1.07 – 1.12 |

Merck KGaA

Darmstadt, Germany

Group Q1

€ m	Group			Healthcare			Life Science			Performance Materials			Corporate/Others		
	Q1 2015	Q1 2016	% YoY	Q1 2015	Q1 2016	% YoY	Q1 2015	Q1 2016	% YoY	Q1 2015	Q1 2016	% YoY	Q1 2015	Q1 2016	% YoY
Net sales	3,041	3,665	21%	1,686	1,646	-2%	738	1,397	89%	617	622	1%			
% organic			5%			5%			9%			-2%			
% FX			-4%			-7%			-1%			1%			
% portfolio			20%			-1%			82%			3%			
EBIT	480	849	77%	268	641	>100%	83	105	27%	214	207	-3%	-85	-104	22%
Depreciation and amortization	325	433	33%	181	188	4%	81	179	>100%	59	61	3%	4	6	39%
EBITDA	805	1,282	59%	449	829	84%	164	284	73%	273	267	-2%	-81	-98	22%
Exceptionals in EBITDA	48	-198	n.m.	12	-321	n.m.	20	109	>100%	4	6	63%	12	7	-42%
EBITDA pre	853	1,084	27%	461	508	10%	184	393	>100%	277	273	-1%	-69	-91	33%
Net financial debt	12,654 *	12,072	-5%												

* as per 31 December 2015

Totals may not add up due to rounding

Group

P&L Group	Q1 2015	Q1 2016	% YoY
Net sales	3,041	3,665	21%
Cost of sales	-973	-1,307	34%
thereof: intangibles amortization	-41	-44	6%
Gross profit	2,068	2,358	14%
Marketing and selling expenses	-940	-1,090	16%
thereof: intangibles amortization	-178	-257	44%
Administration	-172	-206	20%
Other operating income/expenses	-35	276	n.m.
Research and development	-441	-489	11%
EBIT	480	849	77%
Depreciation and amortization	325	433	33%
EBITDA	805	1,282	59%
Exceptionals in EBITDA	48	-198	n.m.
EBITDA pre	853	1,084	27%
Financial result	-101	-68	-32%
Profit before tax	379	780	>100%
Income tax	-94	-187	99%
Income tax rate	25%	24%	
Profit after tax discontinued operations	0	0	n.m.
Profit after tax	285	593	>100%
Non-controlling interests	-4	-2	-46%
Net income	282	591	>100%
Number of theoretical shares in million	434.8	434.8	
EPS in €	0.65	1.36	>100%
EPS pre in €	1.12	1.54	38%

Totals may not add up due to rounding

Healthcare

P&L HC	Q1 2015	Q1 2016	% YoY
Net sales	1,686	1,646	-2%
Cost of sales	-372	-311	-16%
thereof: intangibles amortization	0	0	n.m.
Gross profit	1,314	1,335	2%
Marketing and selling expenses	-660	-613	-7%
thereof: intangibles amortization	-134	-143	7%
Administration	-66	-71	7%
Other operating income/expenses	29	367	>100%
Research and development	-348	-378	8%
EBIT	268	641	>100%
Depreciation and amortization	181	188	4%
EBITDA	449	829	84%
Exceptionals in EBITDA	12	-321	n.m.
EBITDA pre	461	508	10%

Totals may not add up due to rounding

Life Science

P&L LS	Q1 2015	Q1 2016	% YoY
Net sales	738	1,397	89%
Cost of sales	-321	-713	>100%
thereof: intangibles amortization	-12	-15	23%
Gross profit	417	683	64%
Marketing and selling expenses	-233	-421	80%
thereof: intangibles amortization	-41	-110	>100%
Administration	-31	-63	>100%
Other operating income/expenses	-25	-34	34%
Research and development	-45	-62	37%
EBIT	83	105	27%
Depreciation and amortization	81	179	>100%
EBITDA	164	284	73%
Exceptionals in EBITDA	20	109	>100%
EBITDA pre	184	393	>100%

Totals may not add up due to rounding

Performance Materials

P&L PM	Q1 2015	Q1 2016	% YoY
Net sales	617	622	1%
Cost of sales	-280	-282	1%
thereof: intangibles amortization	-29	-28	0%
Gross profit	337	340	1%
Marketing and selling expenses	-46	-58	25%
thereof: intangibles amortization	-4	-5	27%
Administration	-18	-16	-9%
Other operating income/expenses	-12	-12	-6%
Research and development	-47	-48	3%
EBIT	214	207	-3%
Depreciation and amortization	59	61	3%
EBITDA	273	267	-2%
Exceptionals in EBITDA	4	6	63%
EBITDA pre	277	273	-1%

Totals may not add up due to rounding