

Q2 2020 Financial Summary for Investors and Analysts

Top Line reflects COVID-19 impact, Bottom line well managed

- Healthcare: Oncology and General Medicine growing despite pandemic, Fertility demand lowered as anticipated, recovery of Mavenclad® ramp-up started in June, Bavencio® U.S. launch in UC 1L; M5049 COVID-19 study initiated
- Life Science: supporting fight against COVID-19, Process Solutions growing 20%, Research & Applied end markets continue to be negatively impacted but recovery started in June
- Performance Materials: Semiconductor Solutions growing 12% organically not yet offsetting Display and Surface Solutions decline; Versum performance & integration on track
- Q2 organic sales: decline of -2.5%;
- Q2 organic EBITDA pre: decline of -11.5% (against elevated comps)
- EBITDA pre guidance slightly upgraded:
Net sales: €16.9 – 17.7 bn
EBITDA pre: €4,450 – 4,850 m
EPS pre: €5.60 – 6.25
- Net financial debt to EBITDA pre at 2.8 on June 30, 2020 – continued focus on deleveraging

Overview Financials

Q2 2020 Overview

- Versum portfolio effect and strong growth in Process Solutions drive sales above last year, despite materializing COVID-19 impact across most business units
- EBITDA pre and margin decline driven by lower non-recurring income components and under absorption of fixed costs due to lower sales from the COVID-19 impact
- EPS pre declining due to a lower financial result and lower EBITDA pre
- Lower operating cash flow driven primarily by GSK upfront payment in 2019 and higher working capital in 2020

Q2 2020 Cash Flow Statement

- Profit after tax driven by lower EBIT
- Higher depreciation & amortization from Versum PPA and impairments in Performance Materials
- Provisions reflect reduced litigation provisions and fluctuations in LTIP¹
- Changes in other assets and liabilities primarily driven by GSK upfront payment in Q2 2019 that was deferred
- Increased working capital driven by Versum consolidation, higher inventories to secure supply in the face of COVID-19 and growing receivables
- Investing and financing cash flows returning to normal levels

¹Long Term Incentive Plan

Q2 2020 Balance Sheet

- Stable balance sheet since Dec. 31, 2019
- Continuously higher cash level in order to secure liquidity in the face of the COVID-19 pandemic
- Equity ratio of 41.1%
- Financial debt increase reflects bonds issued in January (€1.5 bn) and utilization of available credit lines to increase liquidity reserve; bond repayments in March (€2.0 bn)

Q2 2020 Business Overview

Healthcare

- **Savings in M&S and R&D offset impact from lowered Fertility demand and Mavenclad® drag amid COVID-19**
- Net sales deviation YoY: organic -7.4%, FX -2.3%, portfolio -0.9%
- EBITDA pre deviation YoY: organic -25.9%, FX -4.1%, portfolio +0.9%
- Mavenclad® 36% growth versus Q2 2019, especially in U.S.; however demand declines versus Q1 2020 due to COVID-19 as expected; Rebif® returning to the anticipated underlying trajectory
- Fertility heavily impacted across all regions due to temporary shutdown of a majority of clinics
- Erbitux® organically slightly growing; Bavencio® growing strongly versus last year, but sequentially impacted by COVID-19
- M&S decrease due to rigorous cost management, further supported by significant reduction of in person face-to-face activities during pandemic, last year elevated by now expired amortization of Rebif®
- R&D reflecting ongoing stringent cost control
- EBITDA pre declining faster than sales, driven largely by tough comps from Peg-Pal and Bavencio® milestones in Q2 2019

Life Science

- **Strong resilience continues in Q2; Process growing 20%, Applied & Research impacted by COVID-19 but recovery visible in June**
- Net sales deviation YoY: organic +6.3%, FX -0.4%, portfolio 0.0%
- EBITDA pre deviation YoY: organic +9.7%, FX -2.4%, portfolio -0.6%
- 19.8% organic growth of Process Solutions mainly driven by downstream and single use, with COVID-19 demand contributing
- Applied Solutions about stable due to COVID-19-related effects across the full portfolio albeit clear signs of recovery in June
- Research Solutions impacted significantly mainly due to temporary slowdown in academia from COVID-19-related lab closures, also showing clear signs of recovery in June
- Lower M&S from overall cost-consciousness and lower travel expenses, partially offset by increased freight costs
- Admin increase largely driven by EBITDA pre adjustments (€12 m) and COVID-19-related cost for additional safety precautions
- Increased R&D driven by investments in strategic projects
- EBITDA pre growing faster than sales, reflecting operational leverage from strong top-line growth

Performance Materials

- **Versum portfolio effect and accelerating Semi growth more than offset declining Display and Surface amid COVID-19**
- Net sales deviation YoY: organic -13.7%, FX +1.8%, portfolio +50.1%
- EBITDA pre deviation YoY: organic -29.7%, FX +3.1%, portfolio +51.8%
- Sales growth of 38% reflects portfolio effect from Versum and positive FX, overcompensating organic decline
- Semiconductor Solutions: further accelerating strong organic growth, cyclical recovery and outperformance continuing
- Display Solutions: COVID-19 weighs on LC's negative underlying trajectory against still elevated comps in Q2 2019; OLED also impacted
- Surface Solutions: declining significantly amid a heavy COVID-19 impact on automotive and cosmetic end markets
- M&S reflects consolidation of Versum acquisition and diligent underlying cost management as part of the Bright Future transformation and countermeasures to COVID-19
- R&D declining from an elevated Q2 2019 base including Bright Future provisions (EBITDA pre adjustments); Q2 2020 includes Versum consolidation and shows underlying Bright Future cost management
- Increase in EBITDA pre largely reflects portfolio effect from Versum

2020 guidance

Our assumptions on the development of the COVID-19 pandemic have remained largely the same since May

Previous Assumptions (communicated in May)

- Impact across all regions
- Cases expected to peak in Q2; Situation eases in H2; Pandemic crisis lasts for FY
- Stressed health systems; Some countries have less effective response than China
- However, no major resurgences

Current assumptions (communicated in August)

- Impact across all regions
- Recovery progressing during H2
- Some countries struggle to contain virus resulting in stressed health systems; Effective vaccines not broadly available
- Additional flares, but not triggering new widespread lockdowns

COVID-19 guidance given in May overall accurate, improved visibility warrants slight upgrade

Group:

- Up to mid single-digit percentage sales impact full year
- Countermeasures in place: confirm 50 to 60% of net sales impact to hit EBITDA pre
- Recovery visible in June, expected to continue in Q3 and Q4

Healthcare

- Biggest impact in Fertility behind, as clinics are opening up again
- Mavenclad® recovery visible in June
- Other businesses normalizing

Life Science

- Net upside from COVID-19-related demand in Process Solutions
- Recovery as of June in Applied Solutions
- Research showed largest impact, recovering in June as well

Performance Materials

- Strong growth in Semiconductor expected to continue despite COVID-19
- Some ease of impact from COVID-19 in Display versus Q2
- Slight ease on Surface's end markets expected versus Q2

Group:

- Net sales: Slight to moderate organic growth, Versum growth contribution in mid single-digit percentage range; FX between 0% to -2% YoY; ~€16.9 – 17.7 bn
- EBITDA pre: EBITDA pre:
Slight to moderate organic growth, mid single-digit percentage range growth from Versum; FX headwinds of -2% to -4% YoY; ~€4,450 – 4,850 m¹
 - EBITDA pre - supporting factors:
 - Increasing sales contribution from Mavenclad® and Bavencio®
 - Stringent M&S and R&D cost management in HC (decrease YoY absolute and as % of sales)
 - Ongoing strength in Life Science with above-market sales growth
 - Good momentum in Semiconductor Solutions and cost savings from Bright Future program related initiatives
 - High level of cost consciousness and prioritization
 - Four quarters of Versum
 - EBITDA pre - reducing factors:
 - No more support from Pfizer deferred income (€191 m in 2019)
 - Lower income from pipeline management
 - Continued decline of Liquid Crystals and Rebif®
 - COVID-19 related sales and earnings effect
 - Potential additional effect from VBP² in China during Q4 for Glucophage®
- EPS pre: ~€5.60 – 6.25

¹CO guidance 2020: Slightly higher than last year

²Volume Based Procurement

Qualitative outlook by business sector¹:

Healthcare

- Net sales:
 - Slight organic growth
 - COVID-19 significantly impacting fertility performance
 - Sustained performance of new products
- EBITDA pre:
 - Organically about stable
 - Significant adverse FX impact

Life Science

- Net sales:
 - Strong organic growth
 - Process Solutions trend offsetting slowdown in Research and Applied Solutions
- EBITDA pre:
 - Strong organic growth
 - Moderate adverse FX impact

Performance Materials

- Net sales:
 - Moderate to strong organic decline
 - Semiconductor Solutions growing strongly, while COVID-19 weighing on Display and Surface
 - Mid-thirties percentage contribution from Versum
- EBITDA pre:
 - Organic decline in the low-teens %
 - Slight support from FX
 - Mid-thirties percentage contribution from Versum

¹Business Sector guidances are only support to the Group guidance and do not have to add up

Additional financial guidance for 2020

- Corporate & Other EBITDA pre **slightly lower than last year**
- Interest result **~ -280 to -310 m**
- Effective tax rate **~24 % to 26%**
- Capex on PPE **~1.1 bn – 1.2 bn**
- Hedging / USD assumption **FY 2020 hedge ratio ~ 65%**
at EUR/USD ~1.16
- 2020 Ø EUR/USD assumption **~1.09 to 1.13**

Merck KGaA

Darmstadt, Germany

Group Q2 2020

€ m	Group			Healthcare			Life Science			Performance Materials			Corporate/Others		
	Q2 2019	Q2 2020	% YoY	Q2 2019	Q2 2020	% YoY	Q2 2019	Q2 2020	% YoY	Q2 2019	Q2 2020	% YoY	Q2 2019	Q2 2020	% YoY
Net sales	3 971	4 119	4%	1 677	1 499	-11%	1 705	1 806	6%	589	814	38%			
% organic			-2%			-7%			6%			-14%			
% FX			-1%			-2%			0%			2%			
% portfolio			7%			-1%			0%			50%			
EBIT	618	491	-21%	345	269	-22%	322	386	20%	100	-30	n.m.	-148	-133	-10%
Depreciation and amortization	455	556	22%	177	90	-49%	197	199	1%	62	249	>100%	20	19	-6%
EBITDA	1 074	1 048	-2%	523	359	-31%	518	584	13%	161	219	36%	-128	-115	-10%
Adjustments in EBITDA	65	27	-59%	5	15	>100%	15	-15	n.m.	29	19	-34%	16	8	-52%
EBITDA pre	1 139	1 074	-6%	528	374	-29%	533	569	7%	190	238	25%	-112	-107	-4%
Net financial debt	12 363 *	12 560	2%												

* as per 31 December

Totals may not add up due to rounding

Group

P&L Group	Q2 2019	Q2 2020	% YoY
Net sales	3 971	4 119	4%
Cost of sales	-1 454	-1 610	11%
thereof: intangibles amortization	-44	-57	31%
Gross profit	2 517	2 509	0%
Marketing and selling expenses	-1 157	-1 035	-11%
thereof: intangibles amortization	-225	-165	-27%
Administration	-269	-298	11%
Impairment losses / reversals (IFRS9)	2	-5	n.m.
Other operating income/expenses	79	-160	n.m.
Research and development	-553	-520	-6%
EBIT	618	491	-21%
Depreciation and amortization	455	556	22%
EBITDA	1 074	1 048	-2%
Adjustments in EBITDA	65	27	-59%
EBITDA pre	1 139	1 074	-6%
Financial result	-61	-102	67%
Profit before tax	557	389	-30%
Income tax	-136	-100	-27%
Income tax rate	24%	26%	
Profit after tax from continuing operations	421	289	-31%
Profit after tax from discontinued operation	50	0	-100%
Profit after tax	471	289	-39%
Non-controlling interests	0	1	n.m.
Net income	471	290	-38%
Number of theoretical shares in million	434,8	434,8	
EPS in €	1,08	0,67	-38%
EPS pre in €	1,54	1,30	-16%

Totals may not add up due to rounding

Healthcare

P&L Healthcare	Q2 2019	Q2 2020	% YoY
Net sales	1 677	1 499	-11%
Cost of sales	-421	-364	-13%
thereof: intangibles amortization	-1	-1	-30%
Gross profit	1 256	1 135	-10%
Marketing and selling expenses	-599	-409	-32%
thereof: intangibles amortization	-112	-14	-88%
Administration	-84	-81	-4%
Impairment losses / reversals (IFRS9)	2	-3	n.m.
Other operating income/expenses	165	-7	n.m.
Research and development	-395	-366	-7%
EBIT	345	269	-22%
Depreciation and amortization	177	90	-49%
EBITDA	523	359	-31%
Adjustments in EBITDA	5	15	>100%
EBITDA pre	528	374	-29%

Totals may not add up due to rounding

Life Science

P&L Life Science	Q2 2019	Q2 2020	% YoY
Net sales	1 705	1 806	6%
Cost of sales	-724	-774	7%
thereof: intangibles amortization	-15	-15	6%
Gross profit	982	1 033	5%
Marketing and selling expenses	-490	-488	0%
thereof: intangibles amortization	-109	-104	-5%
Administration	-68	-100	47%
Impairment losses / reversals (IFRS9)	0	-1	n.m.
Other operating income/expenses	-32	18	n.m.
Research and development	-69	-75	9%
EBIT	322	386	20%
Depreciation and amortization	197	199	1%
EBITDA	518	584	13%
Adjustments in EBITDA	15	-15	n.m.
EBITDA pre	533	569	7%

Totals may not add up due to rounding

Performance Materials

P&L Performance Materials	Q2 2019	Q2 2020	% YoY
Net sales	589	814	38%
Cost of sales	-307	-472	54%
thereof: intangibles amortization	-28	-41	46%
Gross profit	282	342	21%
Marketing and selling expenses	-66	-134	>100%
thereof: intangibles amortization	-4	-47	>100%
Administration	-25	-44	76%
Impairment losses / reversals (IFRS9)	0	-1	>100%
Other operating income/expenses	-17	-124	>100%
Research and development	-74	-68	-8%
EBIT	100	-30	n.m.
Depreciation and amortization	62	249	>100%
EBITDA	161	219	36%
Adjustments in EBITDA	29	19	-34%
EBITDA pre	190	238	25%

Totals may not add up due to rounding

Consensus deviation

	Actual	Consensus (mean) 27.07.2020	Difference to estimate	Consensus (median) 27.07.2020	Difference to estimate
[€m]	Q2 2020A	Q2 2020 E	%	Q2 2020 E	%
Group					
Sales	4 119,1	4 118,7	0,0%	4 119,1	0,0%
EBITDA pre	1 074,2	1 078,7	-0,4%	1 070,9	0,3%
EBITDA pre-margin (%)	26,1	26,2	-0.1 pp	25,9	0.1 pp
EPS pre (€)	1,30	1,34	-3,2%	1,32	-1,8%
Healthcare					
Sales	1 499,2	1 515,1	-1,1%	1 517,1	-1,2%
Rebif	289,8	284,1	2,0%	282,9	2,4%
Bavencio	30,1	33,0	-8,9%	32,9	-8,5%
Mavenciclad	82,3	102,3	-19,6%	102,1	-19,4%
All other products	1 097,1	1 095,7	0,1%	1 099,3	-0,2%
EBITDA pre	374,0	394,9	-5,3%	385,7	-3,0%
EBITDA pre-margin (%)	24,9	26,1	-1.1 pp	25,6	-0.7 pp
Life Science					
Sales	1 806,2	1 771,4	2,0%	1 771,2	2,0%
EBITDA pre	569,0	549,3	3,6%	548,5	3,8%
EBITDA pre-margin (%)	31,5	31,0	0.5 pp	31,0	0.5 pp
Performance Materials					
Sales	813,6	832,1	-2,2%	836,4	-2,7%
EBITDA pre	238,3	249,4	-4,5%	246,4	-3,3%
EBITDA pre-margin (%)	29,3	30,0	-0.7 pp	29,7	-0.4 pp
Corporate/Other					
Sales	0,0	0,1	n.m.	-5,6	n.m.
EBITDA pre	-107,2	-115,0	-6,8%	-117,5	-8,8%