

Performance Materials

PERFORMANCE MATERIALS

Key figures

€ million	2015	2014	Change in %
Net sales ¹	2,555.6	2,059.8	24.1
Operating Result (EBIT)	878.0	611.5	43.6
Margin (% of net sales) ¹	34.4	29.7	
EBITDA	1,120.4	803.6	39.4
Margin (% of net sales) ¹	43.8	39.0	
EBITDA pre exceptionals	1,132.1	894.8	26.5
Margin (% of net sales) ¹	44.3	43.4	
Business free cash flow	930.8	699.6	33.0

¹The composition of net sales has changed, see "Information on segment reporting" in the Notes to the Group accounts.

Development of net sales and results of operations

In 2015, net sales of the Performance Materials business sector grew by 24.1% to € 2,556 million (2014: € 2,060 million). This double-digit sales increase was mainly due to the significantly positive currency effect of 13.1%, stemming primarily from the strong U.S. dollar, the leading transaction currency in the Performance Materials business. Revenues from acquired businesses also contributed considerably to the strong sales growth (+10.4%). These acquisition-related sales effects were largely attributable to AZ Electronic Materials (AZ), acquired in May 2014. In addition, the first-time consolidation of the SAFC Hitech business of Sigma-Aldrich acquired in November 2015 contributed around € 10 million to the sales increase in the Performance Materials business sector. Organically, sales were at the previous year's level (+0.6%), based on stable business performance, to which all business units contributed.

The Display Materials business unit, which was established at the beginning of 2015 and consists of Merck's liquid crystals business and the business with the complementary display materials from the acquisition of AZ, represents more than 60% of the net sales of Performance Materials. In 2015, this business unit recorded a slight organic sales decline, however

it solidified its global market leadership position. The doubling of the business with the energy-saving UB-FFS technology could not fully compensate for the accelerated decline in volumes of the mature LC technology TN-TFT. The leading active-matrix technologies PS-VA and IPS generated stable sales.

For the Pigments & Functional Materials business unit, 2015 was a stable year with sales at the previous year's level. In contrast to the continuing success story of the high-quality Xirallic® pigments for automotive coatings, a comparatively sharp decline in sales was recorded for Iriodin® pigments used in plastics and printing applications.

The Integrated Circuit Materials (ICM) business unit includes the former AZ business with materials used to manufacture integrated circuits and the SAFC Hitech business of Sigma-Aldrich acquired in November 2015. The business unit recorded a slight organic sales increase – mainly fueled by strong growth of the business with dielectric materials for chip manufacture.

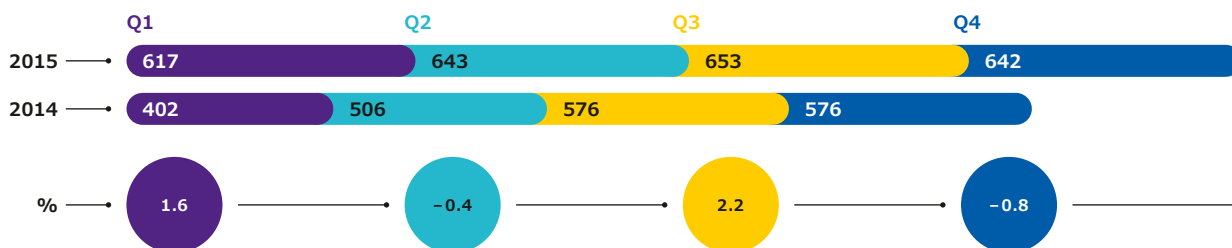
The Advanced Technologies business unit achieved the highest growth rates within the Performance Materials business sector. Special mention should be made of the dynamic development of the OLED materials business.

The development of net sales in the individual quarters in comparison with 2014 as well as the respective organic growth rates are presented in the following overview:

PERFORMANCE MATERIALS

Net sales and organic growth by quarter¹

€ million/organic growth in %

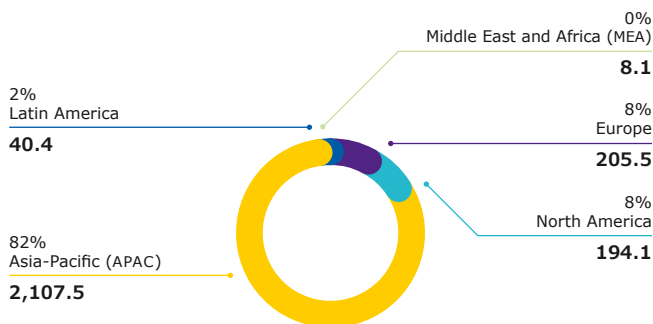


¹ Quarterly breakdown unaudited.

PERFORMANCE MATERIALS

Net sales by region – 2015

€ million/% of net sales of the business sector



Accounting for a stable 82% share, the Asia-Pacific region again generated the vast majority of the business sector’s net sales. This is attributable to the concentration of customers for display and integrated circuit materials in Asia. In this region, the business sector achieved significant sales growth of 24.9%, mainly due to acquisition and currency effects. Organically, sales were stable (+0.8%); however, increases in OLED and dielectric IC materials were almost canceled out by declines in the Display Materials business unit. This led to net sales of € 2,107 million (2014: € 1,688 million), underscoring the sustainable strength of the Performance Materials business sector in the strategically important Asia-Pacific region.

In Europe, Performance Materials generated net sales of € 206 million (2014: € 193 million). The rise in sales was mainly attributable to acquisition-related effects due to the first-time consolidation of AZ on May 2, 2014. Organically, sales declined slightly in 2015, mainly as a result of weaker demand for cosmetic actives as well as pigments for plastics and printing applications.

In North America, due to acquisition and exchange rate effects, net sales climbed to € 194 million (2014: € 135 million). Organically, regional sales decreased by –2.2%. This

was mainly attributable to the weaker demand in Pigments & Functional Materials, particularly pigments for plastics and printing applications.

Since they account for a low proportion of sales, the two regions Latin America and Middle East and Africa (MEA) only played a subordinate role. Latin America recorded double-digit organic growth, albeit a low level of net sales. Organic growth was generated by strong increases in the Pigments & Functional Materials business unit.

PERFORMANCE MATERIALS

Net sales components by region – 2015

€ million/change in %	Net sales	Organic growth	Exchange rate effects	Acquisitions/ divestments	Total change
Europe	205.5	-1.6	0.5	7.6	6.5
North America	194.1	-2.2	18.1	28.0	43.9
Asia-Pacific (APAC)	2,107.5	0.8	14.6	9.5	24.9
Latin America	40.4	20.7	-10.1	0.6	11.1
Middle East and Africa (MEA)	8.1	-10.0	2.2	10.4	2.6
Performance Materials	2,555.6	0.6	13.1	10.4	24.1

The results of operations developed as follows:

PERFORMANCE MATERIALS

Result of operations¹

€ million	2015		2014		Change	
	in € million	in %	in € million	in %	€ million	in %
Net sales	2,555.6	100.0	2,059.8	100.0	495.8	24.1
Cost of sales	-1,151.4	-45.1	-983.2	-47.7	-168.2	17.1
<i>(of which: amortization of intangible assets)²</i>	<i>(-114.9)</i>		<i>(-46.4)</i>		<i>(-68.5)</i>	<i>(147.8)</i>
Gross profit	1,404.2	54.9	1,076.6	52.3	327.6	30.4
Marketing and selling expenses	-207.8	-8.1	-178.8	-8.7	-29.0	16.2
<i>(of which: amortization of intangible assets)²</i>	<i>(-16.0)</i>		<i>(-11.7)</i>		<i>(-4.3)</i>	<i>(36.4)</i>
Administration expenses	-63.1	-2.5	-56.1	-2.7	-7.0	12.6
Research and development costs	-197.0	-7.7	-170.6	-8.3	-26.4	15.4
<i>(of which: amortization of intangible assets)²</i>	<i>(-0.7)</i>		<i>(-2.8)</i>		<i>(2.1)</i>	<i>(-76.4)</i>
Other operating expenses and income	-58.3	-2.3	-59.6	-2.9	1.3	-2.3
Operating result (EBIT)	878.0	34.4	611.5	29.7	266.5	43.6
Depreciation/amortization/impairment losses/ reversals of impairment losses	242.4	9.5	192.1	9.3	50.3	26.2
<i>(of which: exceptionals)</i>	<i>(-)</i>		<i>(-)</i>		<i>(-)</i>	<i>(-)</i>
EBITDA	1,120.4	43.8	803.6	39.0	316.8	39.4
Restructuring costs	1.8		6.0		-4.2	-70.3
Integration costs/IT costs	15.0		12.2		2.8	24.4
Gains/losses on the divestment of businesses	-5.8		4.6		-10.4	-
Acquisition-related exceptionals	0.7		68.4		-67.7	-99.0
Other exceptionals	-		-		-	-
EBITDA pre exceptionals	1,132.1	44.3	894.8	43.4	237.3	26.5

¹The reporting structure has changed, see "Information on segment reporting" in the Notes to the Group accounts.

²Excluding amortization of internally generated or separately acquired software.

The increase in gross profit was attributable to favorable exchange rate effects and good business performance. In addition, the AZ Electronic Materials business acquired in May 2014 and the SAFC Hitech business from the Sigma-Aldrich acquisition in November 2015 contributed to the improvement in gross profit. Within the scope of the first-time consolidation, in 2014 the acquired AZ inventories were stepped up to fair values and recognized as an expense in cost of sales. Overall, this resulted in an increase in the gross margin in 2015 to 54.9% (2014: 52.3%). The operating result

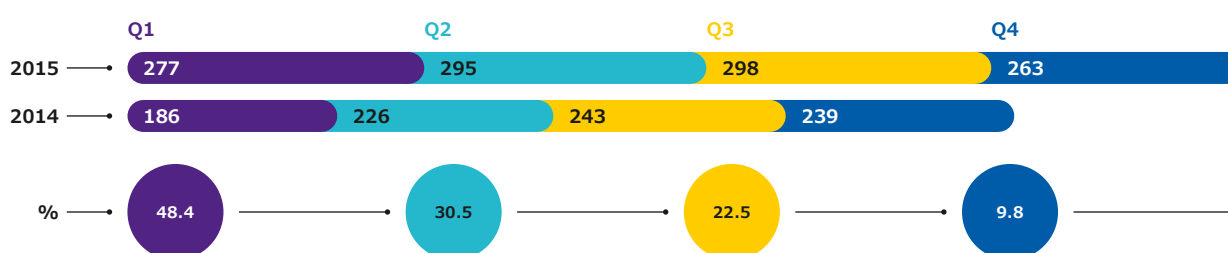
(EBIT) rose by € 267 million to € 878 million in 2015 (2014: € 611 million). Consequently, both good operating business performance and positive exchange rate effects increased EBITDA pre exceptionals by 26.5% to € 1,132 million (2014: € 895 million). The EBITDA margin pre exceptionals improved to 44.3% in 2015 (2014: 43.4%).

The development of EBITDA pre exceptionals in the individual quarters in comparison with 2014 is presented in the following overview:

PERFORMANCE MATERIALS

EBITDA pre exceptionals and change by quarter¹

€ million/change in %



¹ Quarterly breakdown unaudited.

Development of business free cash flow

In 2015, the Performance Materials business sector generated business free cash flow of € 931 million, which represents a significant year-on-year increase of € 231 million (2014: € 700 million). This was mainly attributable to the strong improvement in EBITDA pre exceptionals.

PERFORMANCE MATERIALS

Business free cash flow

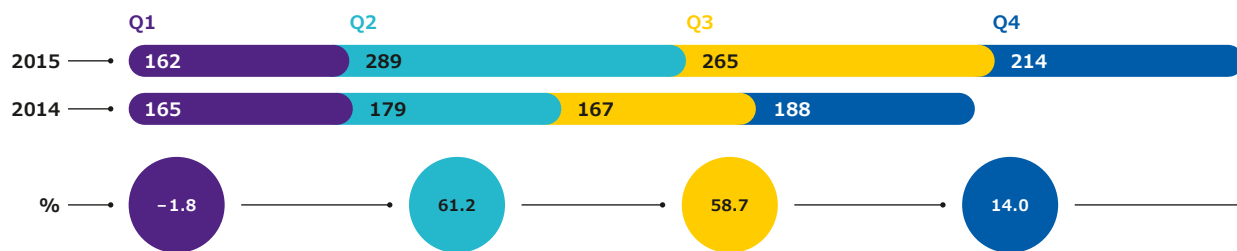
€ million	2015	2014	Change in %
EBITDA pre exceptionals	1,132.1	894.8	26.5
Investments in property, plant and equipment, software as well as advance payments for intangible assets	-109.4	-97.6	12.1
Changes in inventories	-83.2	-98.8	-15.8
Changes in trade accounts receivable and receivables from royalties and licenses	-33.6	-143.4	-76.5
Adjustments first-time consolidation of AZ Electronic Materials	-	144.6	-
Adjustments first-time consolidation of Sigma-Aldrich	24.9	-	-
Business free cash flow	930.8	699.6	33.0

The development of business free cash flow items in the individual quarters in comparison with 2014 is presented in the following overview:

PERFORMANCE MATERIALS

Business free cash flow and change by quarter¹

€ million/change in %



¹Quarterly breakdown unaudited.