Report on Economic Position

Macroeconomic and Sector-Specific Environment

In its latest World Economic Outlook published on January 17, 2025, the International Monetary Fund (IMF) projected that global gross domestic product growth would remain approximately stable at 3.2% for 2024. Economic growth was driven mainly by declining global inflation rates, which are projected to fall from an annual average of 6.7% in 2023 to 5.8% in 2024 and decline even further in 2025. Major central banks in advanced economies started to cut interest rates despite high inflation rates for services prices. Increased demand for semiconductors and significant investments in artificial intelligence in emerging Asian markets contributed to economic growth. This economic recovery was partially offset by ongoing supply disruptions due to armed conflict, civil unrest and extreme weather events impacting emerging markets and developing economies in particular.

The IMF highlighted significant risks to the 2024 global outlook, including potential regional conflicts, a further slowdown in China’s property sector and financial market volatility and the associated impact on national debt. Geoeconomic fragmentation would also pose challenges to global stability. Despite these risks, the IMF pointed to key opportunities, such as recalibrating fiscal policies to make public debt sustainable, restoring fiscal buffers and enhancing growth through structural reforms. The IMF also stressed that increased international cooperation could accelerate the green transition, support debt restructuring and strengthen multilateral frameworks, promoting long-term global stability and shared growth.

The development of GDP in selected countries and regions was as follows:

Annual change in %	**2024**[1]	2023
World	3.2	3.3
Advanced economies	1.7	1.7
USA	2.8	2.9
Euro area	0.8	0.4
Japan	-0.2	1.5
Emerging markets and developing economies	4.2	4.4
Emerging markets and developing economies Asia	5.2	5.7
India	6.5	8.2
China	4.8	5.2

[1] Figures for fiscal 2024 estimated

The development of selected sector specific environments was as follows:

	Change 2024[1]	Change 2023
Life Science		
Growth in market for laboratory products[2]	-1.5%	-5.0%
Growth in global sales of biopharmaceuticals[3]	12.8%	17.5%
Sales share of biopharmaceuticals in the global pharmaceutical market[3]	39.5%	38.3%
Early clinical monoclonal antibody (mAb) pipeline growth[4]	6.5%	17.4%
Healthcare		
Global pharmaceutical market	8.8%	10.3%
Market for multiple sclerosis therapies[5]	-2.4%	-1.5%
Market for type 2 diabetes therapies[5]	17.6%	18.8%
Market for fertility treatment[5]	9.0%	11.5%
Market for the treatment of colorectal cancer[6]	2.8%	1.0%
Electronics		
Growth of wafer area for semiconductor chips	-2.5%	-14.3%
Growth of display surface area[7]	6.0%	-1.0%
Global sales of cosmetics and care products	3.8%	3.1%
Global number of produced light vehicles	-0.4%	10.3%

[1] Predicted development. Final development rates for 2024 were not available for all industries when this report was prepared.

[2] Global Market for Laboratory Products, October 2024, Frost & Sullivan.

[3] Global pharmaceuticals spending at a constant exchange rate. IQVIA market data based on the past 12 months as of the third quarter 2024.

[4] Number of programs in Phase I or Phase II clinical trials, Cortellis.

[5] Growth rates based on market data in local currency, translated at a constant euro exchange rate. The IQVIA market data on the growth of indications are based on current figures, including the third quarter of 2024. Annual growth based on the values for the past twelve months. The type 2 diabetes market excludes the United States since this market is insignificant to Merck.

[6] Growth rates based on market data stated in US dollars. Market data from EvaluatePharma on the growth of indications are based on published company reports and are subject to exchange rate fluctuations.

[7] Growth of display area is a pure volume indicator.

Life Science

Our Life Science business sector is one of the leading global suppliers of products, tools and services for research laboratories, pharmaceutical and biopharmaceutical production as well as industrial and testing laboratories. While the direct impacts of the Covid-19 pandemic were resolved, capital constraints and persistent high inventory levels at many customers challenged the growth of life science companies compared with previous years.

Accordingly, the markets in which Life Science operates remained below historic steady-state growth levels. According to the market research firm Frost & Sullivan, the market for laboratory products, relevant to our Science & Lab Solutions business unit, decreased by 1.5% in 2024 (2023: -5.0%). This decrease was below typical growth in the mid-single-digit range. Decisive factors such as high interest rates and a challenging macroeconomic outlook suppressed investment in early-stage biotech companies (venture capital and IPOs), resulting in lower demand for laboratory products. Once the underlying macroeconomic factors normalize, spending on laboratory products is likely to increase again.

In the pharma and biotech production market, in which our Process Solutions and Life Science Services business units are active, demand was driven by the development and manufacture of therapeutic drugs and vaccines. According to the pharmaceutical market research firm IQVIA, the end market for biopharmaceuticals grew by 12.8% in 2024 (2023: 17.5%) to € 555 billion (or 39.5% of the global pharmaceutical market). The number of monoclonal antibodies (mAbs) being investigated in phase I or II development grew by 6.5% (2023: 17.4%). Although the biopharmaceutical market grew in 2024, inventory destocking remained a headwind to growth across the industry in 2024.

Healthcare

In its latest study from September, IQVIA forecasts growth of 8.8% in 2024 (2023: 10.3%) for the global overall pharmaceutical market. The pharmaceutical market growth rates benefit from new product launches, demographic and epidemiological trends as well as improved access to care. This is balanced by generic and biosimilar product uptake together with stricter price policies.

EMEA (Europe, Middle East and Africa) grew by 8.4% in fiscal 2024 (2023: 8.6%) with the EU4 (Germany, France, Italy, and Spain) plus the UK growing by 6.8% (2023: 8.2%). North America grew by 10.0% (2023: 13.7%) with the United States growing at a rate of 10.1% (2023: 13.8%). The United States remains the biggest and most important pharmaceutical market by far. Latin America achieved double-digit growth of 24.7% (2023: 11.9%) impacted by high inflation. The Asia-Pacific region (excluding China and Japan) has 6.2% growth (2023: 6.7%). China has increased investment in healthcare infrastructure and access to innovative medicines as well as extended price regulations (for example, “National Volume-based Procurement“ directive), lowering growth to 1.5% in 2024 (2023: 4.0%).

Not only the growth of the pharmaceutical sector as a whole, but also the market development for biotechnologically produced active ingredients is relevant to our business. According to IQVIA, these products accounted globally for 39.5% of the pharmaceutical market value (2023: 38.3%). The US remains the most important market with 64.5% share.

The developments in the therapeutic areas of relevance to Merck were characterized by different trends in the reporting year. The global market for type 2 diabetes, excluding the United States, followed the high growth trend of previous years achieving 17.6% in 2024 (2023: 18.8%). The therapeutic area of infertility grew 9.0% in the reporting year (2023: 11.5%) and colorectal cancer continued growing by 2.8% in 2024 (2023: increase of 1.0%) with stronger usage of branded products despite biosimilar market penetration. The market for multiple sclerosis therapies declined by -2.4% (2023: -1.5%), driven by competition from generics.

Electronics

The semiconductor industry is the most important market for our business with materials, solutions and services for integrated circuits production (Semiconductor Solutions). Demand for semiconductor materials primarily depends on the wafer area produced for semiconductors, with silicon wafers serving as an indicator for overall semiconductor materials demand.

According to the global industry association SEMI (October 2024 forecast), the delivered silicon wafer area experienced a -2.5% decline in 2024 (-14.3% in 2023). The industry moved past the 2023 cyclical downturn and began to recover in 2024. However, macroeconomic challenges such as high inflation, high interest rates and changing consumer preferences for services tempered the upswing. Semiconductor manufacturers raised capacity utilization rates despite continued high inventory levels and sluggish end-device demand; nevertheless, demand for materials and related services has increased compared with 2023. However, silicon wafers faced significant excess inventory in 2024, decoupling from actual semiconductor production.

We expect a positive development for the Electronics business sector with continued growth in the semiconductor market in 2025, driven by AI solutions, the Internet of Things and rising data volumes from big data.

With our Display Solutions business (named Optronics since January 1, 2025), we are a significant producer of liquid crystal mixtures, photoresists and OLED materials for the display industry. Following the Covid-19 pandemic´s “lock-down boom”, the display industry experienced demand normalization and signs of gradual recovery in 2023. However, sluggish demand in the fourth quarter of 2023 led to a slight decline in annual growth. In 2024, OMDIA forecasts a 6.0% growth in display area, driven by increased demand for larger TV sizes, replacement demand for IT devices and steady growth in automotive displays. Liquid crystals will remain vital in the display industry, while OLED technology is increasingly important in high-end applications. Additionally, there is growing interest in reactive mesogens for anti-reflective films and barrier materials, which could enhance the flexibility, reliability and longevity of OLED devices.

The automotive coatings and cosmetics markets are crucial to our Surface Solutions business. According to GlobalData´s September 2024 report, global automobile production is expected to decline slightly by -0.4% in 2024 (compared with 10.3% increase in 2023) due to de-stocking after a strong production year and slowing global growth, except in China and India. Euromonitor´s November 2024 report indicates that the beauty and care products market is continuing to grow in the low- to mid-single digits in 2024.

Review of Forecast against Actual Business Developments

The forecast of the Merck Group for fiscal 2024 published in the Annual Report for fiscal 2023 comprised the forecast for the Group as well as the forecast for the three business sectors: Life Science, Healthcare and Electronics.

Net sales

We forecast slight to moderate organic net sales growth for the Group in fiscal 2024. As expected, the Healthcare business sector was once again the strongest growth driver compared with the previous year, with Mavenclad® and products from the Oncology and Cardiovascular, Metabolism & Endocrinology franchises making the main contributions. For Life Science, we reported a gradual recovery in organic net sales growth over the course of the year in comparison with the previous year. There were no longer any significant contributions from demand for products in connection with Covid-19. In the Electronics business sector, we witnessed a turnaround in parts of the semiconductor market, although a comprehensive market recovery did not emerge by the end of fiscal 2024. The anticipated decline in Display Solutions business also had a negative impact, as did project business in the Semiconductor Solutions business unit, which is typically subject to stronger fluctuations owing to its dependency on major individual orders. Overall, we recorded organic net sales growth of 2.0% in fiscal 2024, thereby falling within the forecast range of +2% to +5% that we most recently specified in the second quarter and confirmed in the third quarter. At the start of the year, we forecast overall exchange rate effects of between -3% and 0%. This was based in particular on the expected development of the US dollar and some Asian currencies. At -1.3%, exchange rate effects in fiscal 2024 fell within this range, which we subsequently confirmed in the second and third quarters. The slightly positive portfolio effect was negligible at 0.1%. All in all, net sales amounted to € 21,156 million (2023: € 20,993 million), representing a year-on-year increase of 0.8%. This was below the mid-point of the forecast range of € 20,700 million to € 22,100 million and thus was consistent with the more specific forecast issued together with the figures for the third quarter (trending in the lower half of the range).

Life Science

In our Life Science business sector, the expected recovery began in the second half of 2024, after sales in the first half of the year were initially still affected by the reduction of increased inventories on the customer side. However, this recovery was slower than originally anticipated and will continue in some areas in 2025. Accordingly, Life Science reported an organic decline in net sales of -3.3% in fiscal 2024. This was below the forecast range of between -2% and +2% that we specified in the second and confirmed in third quarters and it was also below our original forecast of a slight organic decline to slight organic growth. While the Process Solutions and Life Science Services business units recorded a downturn in organic net sales, the Science & Lab Solutions Business unit recorded a slight organic sales growth. All in all, net sales in the Life Science business sector fell by -3.9%, to € 8,916 million (2023: € 9,281 million), including a negative exchange rate effect of -0.7% and a positive portfolio effect of 0.1%. This was slightly above the lower end of the forecast range of € 8,800 million to € 9,500 million and consistent with the more specific forecast issued at the end of the third quarter (trending slightly above the lower end of the range).

Healthcare

We originally forecast moderate to solid organic sales growth for our Healthcare business sector compared with the previous year. We then quantified this organic net sales growth forecast at between +4% and +7% with the publication of the quarterly statement for the first quarter. We raised this forecast to between +6% and +9% with the publication of the interim report on the second quarter and confirmed it with the figures for the third quarter. The business sector achieved this forecast with organic growth of 7.0% in fiscal 2024. This development was driven in particular by products from the areas of Oncology as well as Neurology & Immunology, especially our recently approved product Mavenclad®, as well as Cardiovascular, Metabolism and Endocrinology products. Taking into account a negative exchange rate effect of-2.0%, net sales in the Healthcare business sector increased by 5.0%, to € 8,455 million (2023: € 8,053 million) in fiscal 2024. This was slightly below the mid-point of the forecast range of € 8,200 million to € 8,750 million and in line with the more specific forecast issued together with the figures for the third quarter (trending slightly below the mid-point of the range).

Electronics

With the turnaround in the market for semiconductor materials originally expected to occur at the start of the second half of the year and an expected decline in the Display Solutions business and project business in the Semiconductor Solutions business unit, we forecast around stable to moderate organic net sales growth for the Electronics business sector at the start of the year. With the publication of the figures for the first quarter, we quantified this forecast at between 0% and +4%. We raised this forecast to between +4% and +8% in the interim report on the second quarter, having already observed a trend reversal in sub-segments of the semiconductor materials market in the second quarter that was expected to lead to further organic net sales growth in semiconductor materials. We confirmed this forecast together with the figures for the third quarter. With organic growth of 4.6%, net sales were in line with this forecast. Taking into account a negative exchange rate effect of -1.4%, net sales in the Electronics business sector increased by 3.4% year-on-year to € 3,785 million (2023: € 3,659 million). This was in the lower half of the forecast range of € 3,650 million to € 3,950 million and in line with the more specific forecast issued together with the figures for the third quarter (trending in the lower half of the range).

EBITDA pre

Our original forecast for the Merck Group's EBITDA pre for fiscal 2024 ranged from slight to moderate organic growth compared with the previous year. This assumption was based on the expectation of a moderate organic decline to slight organic growth in Life Science, low single-digit percentage organic growth in Healthcare and a moderate organic decline to moderate organic growth in Electronics. We originally expected negative exchange rate effects to impact EBITDA pre by between -1% and -4% compared with the previous year. With the publication of the figures for the first quarter, we quantified our EBITDA pre forecast at organic growth of between +1% and +7%, again under the assumption that negative exchange rate effects would impact EBITDA pre by between -1% and -4% compared with the previous year. Due to the net sales growth in the Healthcare and Electronics business sectors and, in particular, the expected development of EBITDA pre in the Healthcare business sector, thanks to the positive impact of the termination of the strategic alliance with Pfizer Inc., United States (Pfizer), effective June 30, 2023, and the subsequent regain of the exclusive global rights to develop, manufacture and commercialize Bavencio® as well as lower costs, especially in research and development, we raised our EBITDA pre forecast to between +4% and +10% with the publication of the interim report on the second quarter and confirmed this forecast together with the figures for the third quarter. Due to negative exchange rate developments, we adjusted our forecast for the impact of exchange rate effects to between -5% and -1% in the second quarter and confirmed this together with the figures for the third quarter. EBITDA pre amounted to € 6,072 million in fiscal 2024 (2023: € 5,879 million), representing a total increase of 3.3% compared with the previous year. This was slightly below the mid-point of our forecast range of between € 5,800 million and € 6,400 million, and hence in line with the more specific range (trending around the mid-point). At 6.9%, organic EBITDA pre growth also fell within our forecast range of between +4% and +10%. Exchange rate effects came in at the lower end of our forecast range at -3.6%. The slightly negative portfolio effect was negligible at -0.1%.

Life Science

In line with the expected organic net sales development (slight organic decline in net sales to slight organic growth in net sales), we forecast a moderate organic decline to slight organic growth in EBITDA pre in the Life Science business sector. We quantified our forecast for organic EBITDA pre at between -6% and +1% in the first quarter and confirmed this forecast with the publication of the figures for the second and third quarter. We expected earnings to be adversely affected by negative mix effects, which we intended to mitigate as far as possible through corresponding cost savings. Combined with the most recent forecast of a negative exchange rate effect of between -4% and 0% (originally: roughly stable to slightly negative exchange rate effect), the forecast range for EBITDA pre was between € 2,550 million and € 2,800 million. EBITDA pre in fiscal 2024 fell within this range, at € 2,589 million (2023: € 2,820 million). This represented a year-on-year decline of -8.2% (-6.3% organic, -1.7% due to exchange rate effects, -0.2% due to portfolio effects). EBITDA pre was therefore also in line with the more specific forecast issued in the report on the third quarter (trending slightly above the lower end of the range).

Healthcare

We originally forecast organic EBITDA pre growth in the low single-digit percentage range for our Healthcare business sector. This original forecast was higher than the forecast moderate to solid organic net sales growth. This was due to the termination of the strategic alliance with Pfizer effective June 30, 2023, and the subsequent regain of the exclusive global rights to develop, manufacture and commercialize Bavencio®, as well as lower costs, especially in research and development, as a result of the failure of evobrutinib to meet its primary endpoint, as demonstrated by the results of the clinical trials published on December 6, 2023. With the publication of the figures for the first quarter, we increased this forecast range to organic EBITDA pre growth of between +13% and +18%. We then raised it further to between +18% and +23% in the interim report on the second quarter, in response to stronger operating performance and lower costs, especially in research and development. We retained this forecast with the publication of the figures for the third quarter. Combined with the most recent forecast of an exchange rate effect of between -6% and -2% (originally: slight to significant negative exchange rate effect), this resulted in a forecast range for EBITDA pre in the Healthcare business sector of € 2,850 million to € 3,050 million. At € 2,995 million in fiscal 2024 (2023: € 2,543 million), EBITDA pre fell within the upper half of this range and hence in line with the more specific forecast issued in the report on the third quarter (trending in the upper half of the range). This represented a year-on-year increase of 17.8% (22.7% organic, -5.0% due to exchange rate effects).

Electronics

For the Electronics business sector, we originally forecast a moderate organic decline to moderate organic growth in EBITDA pre in fiscal 2024. In addition to the expected growth in net sales, we anticipated a favorable mix effect in net sales, as well as positive effects from active cost management, but we expected the sale of a portfolio of licenses and patents in fiscal 2023 to have an opposing effect. With the presentation of the figures for the first quarter, we quantified our forecast range for the organic development of EBITDA pre at between -3% and +4%. We raised this forecast to between +5% and +11% with the publication of the interim report on the second quarter and retained it with the figures for the third quarter. This largely reflected the growth in net sales in the Electronics business sector after we already observed a trend reversal in sub-segments of the semiconductor materials market in the second quarter. Combined with the most recent forecast of an exchange rate effect of between -2% and +1% (originally: roughly stable to moderate negative exchange rate effect), this resulted in a forecast range for EBITDA pre in the Electronics business sector of € 950 million to € 1,020 million. At € 970 million in fiscal 2024 (2023: € 913 million), EBITDA pre was slightly above the lower end of this range and hence was in line with the more specific forecast issued in the report on the third quarter (trending slightly above the lower end of the range). This represented a year-on-year increase of 6.2% (6.9% organic, -1.0% due to exchange rate effects, 0.2% due to portfolio effects).

Corporate and Other

The expenses for Corporate and Other in EBITDA pre amounted to €-482 million in fiscal 2024. This was slightly below the mid-point of the published forecast range of between € -450 million and € -520 million and hence in line with the more specific forecast issued in the report on the third quarter (trending around the mid-point). The original forecast for fiscal 2024 provided for higher expenses due to lower foreign currency hedging gains. Expenses increased by 21.4% compared with the prior-year figure of € -397 million.

Operating cash flow

We originally anticipated moderate to strong growth in the Merck Group’s operating cash flow in fiscal 2024 (2023: € 3,784 million). We quantified this forecast at between € 3,900 million and € 4,500 million with the publication of the figures for the first quarter. As we expected the development of the operating cash flow to be largely in line with operating performance, we raised the forecast range to between € 4,000 million and € 4,600 million in the interim report on the second quarter and confirmed this in the report on the third quarter. The operating cash flow amounted to € 4,586 million in fiscal 2024, which was in the upper half of the forecast range. This corresponded to the more specific forecast issued together with the figures for the third quarter (trending in the upper half of the range). The increase of 21.2% was primarily due to the positive development of EBITDA pre and changes in other assets and liabilities.

Course of Business and Economic Position

Merck Group

Merck Group

Key figures

€ million	2024	2023	Change € million	Change %
Net sales	21,156	20,993	163	0.8%
Operating result (EBIT)[1]	3,645	3,609	36	1.0%
Margin (% of net sales)[1]	17.2%	17.2%		
EBITDA[2]	5,779	5,489	290	5.3%
Margin (% of net sales)[1]	27.3%	26.1%		
EBITDA pre[1]	6,072	5,879	193	3.3%
Margin (% of net sales)[1]	28.7%	28.0%		
Profit after tax	2,786	2,834	-48	-1.7%
Earnings per share (€)	6.39	6.49	-0.10	-1.5%
Earnings per share pre (€)[1]	8.63	8.49	0.14	1.6%
Operating cash flow	4,586	3,784	802	21.2%

[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

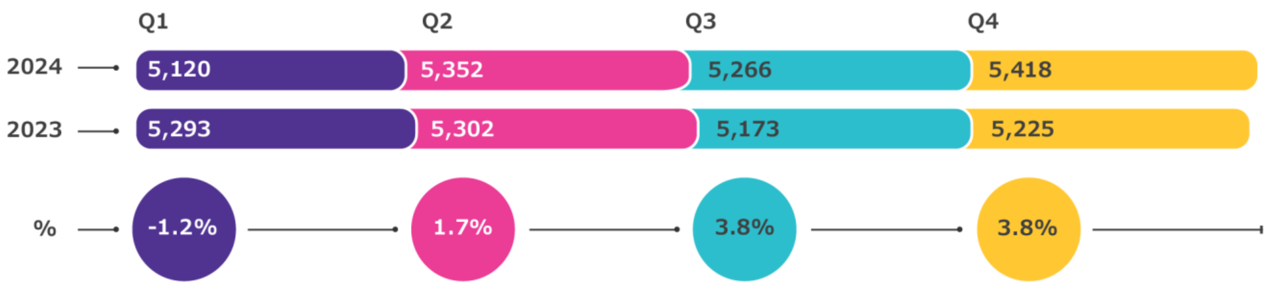
Development of sales and results of operations

The net sales in the individual quarters and the respective organic growth rates in 2024 are presented in the following graph:

Merck Group

Net sales and organic growth[1] by quarter[2]

€ million/organic growth in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

In fiscal 2024, the net sales by business sector developed as follows:

Merck Group

Net sales by business sector

€ million	2024	Share	Organic growth[1]	Exchange rate effects[1]	Acquisitions/ divestments[1]	Total change	2023	Share
Life Science	8,916	42%	-3.3%	-0.7%	0.1%	-3.9%	9,281	44%
Healthcare	8,455	40%	7.0%	-2.0%	–	5.0%	8,053	38%
Electronics	3,785	18%	4.6%	-1.4%	0.2%	3.4%	3,659	18%
Merck Group	**21,156**	**100%**	**2.0%**	**-1.3%**	**0.1%**	**0.8%**	**20,993**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

In fiscal 2024, the Merck Group recorded the following regional sales performance:

Merck Group

Net sales by region

€ million	2024	Share	Organic growth[1]	Exchange rate effects[1]	Acquisitions/ divestments[1]	Total change	2023	Share
Europe	6,171	29%	2.5%	-0.3%	0.0%	2.2%	6,037	29%
North America	5,710	27%	-4.1%	-0.1%	0.1%	-4.1%	5,952	28%
Asia-Pacific (APAC)	7,017	33%	3.6%	-2.5%	–	1.2%	6,936	33%
Latin America	1,477	7%	16.5%	-5.6%	–	10.9%	1,331	6%
Middle East and Africa (MEA)	781	4%	6.6%	-1.6%	0.9%	6.0%	737	4%
Merck Group	**21,156**	**100%**	**2.0%**	**-1.3%**	**0.1%**	**0.8%**	**20,993**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

- In fiscal 2024, the Merck Group generated net sales of € 21,156 million (2023: € 20,993 million), representing a year-on-year increase of € 163 million or 0.8%. Net sales grew organically by € 424 million or 2.0%. Net sales of the Healthcare and Electronics business sectors increased while the Life Science business sector reported an organic sales decline. Negative foreign exchange effects led to a reduction of net sales by € 277 million or -1.3%. These effects largely resulted from the exchange rate development of several Asian currencies, as well as the Brazilian real. Portfolio-related changes in net sales from acquisition were negligible, amounting to € 15 million.

- Net sales of the Life Science business sector decreased by € 365 million or -3.9% year on year, to € 8,916 million (2023: € 9,281 million). This development was mainly due to organic effects, which amounted to € 310 million or -3.3%. Foreign exchange effects also contributed € 61 million or -0.7%, to the sales decline. The acquisition of Mirus Bio LLC, USA, had an overall immaterial effect of 0.1%. At 42% (2023: 44%), Life Science again accounted for the largest share of Group net sales in fiscal 2024, followed by Healthcare at 40% (2023: 38%). Net sales of the Healthcare business sector increased by € 401 million or 5.0% year on year to € 8,455 million (2023: € 8,053 million). Organic growth of 7.0% was dampened by negative foreign exchange effects of -2.0%. The € 126 million or 3.4% increase in net sales in the Electronics business sector to € 3,785 million (2023: € 3,659 million) resulted from organic growth of 4.6% and an acquisition effect of 0.2%. This was offset by foreign exchange effects of -1.4%. The percentage contribution of Electronics to Group net sales was unchanged year on year at 18%.

- Orders already received by the reporting date to result in net sales in future periods amounted to around € 4 billion on December 31, 2024 (December 31, 2023: around € 4 billion), of which around € 3 billion related to the Life Science business sector (December 31, 2023: around € 3 billion).

The Consolidated Income Statement of the Merck Group is as follows:

Merck Group

Consolidated Income Statement

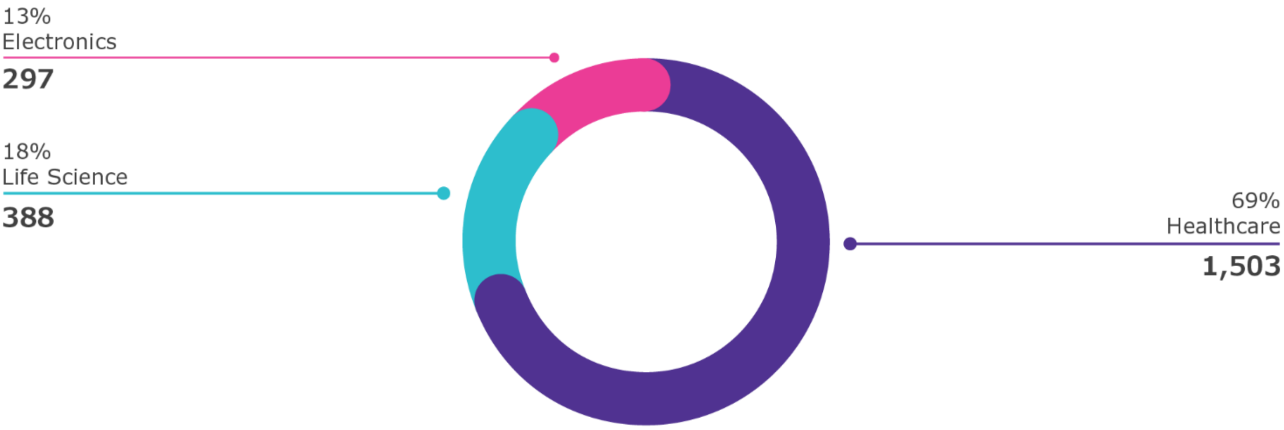
€ million	2024	%	2023	%	Change € million	Change %
Net sales	**21,156**	**100.0%**	**20,993**	**100.0%**	**163**	**0.8%**
Cost of sales	-8,671	-41.0%	-8,600	-41.0%	-71	0.8%
Gross profit	**12,485**	**59.0%**	**12,392**	**59.0%**	**92**	**0.7%**
Marketing and selling expenses	-4,536	-21.4%	-4,510	-21.5%	-26	0.6%
Administration expenses	-1,370	-6.5%	-1,392	-6.6%	23	-1.6%
Research and development costs	-2,279	-10.8%	-2,445	-11.6%	166	-6.8%
Impairment losses and reversals of impairment losses on financial assets (net)	-8	0.0%	-51	-0.2%	42	-83.4%
Other operating income and expenses	-646	-3.1%	-385	-1.8%	-261	67.9%
Operating result (EBIT)[1]	**3,645**	**17.2%**	**3,609**	**17.2%**	**36**	**1.0%**
Financial result	-108	-0.5%	-125	-0.6%	17	-13.4%
Profit before income tax	**3,536**	**16.7%**	**3,484**	**16.6%**	**53**	**1.5%**
Income tax	-751	-3.5%	-650	-3.1%	-101	15.5%
Profit after tax	**2,786**	**13.2%**	**2,834**	**13.5%**	**-48**	**-1.7%**
Non-controlling interests	-9	0.0%	-10	0.0%	1	-9.0%
Net income	**2,777**	**13.1%**	**2,824**	**13.5%**	**-47**	**-1.7%**

[1] Not defined by International Financial Reporting Standards (IFRS).

The breakdown of research and development costs by business sector is as follows:

Merck Group

Research and development costs by business sector[1] – 2024
€ million/%



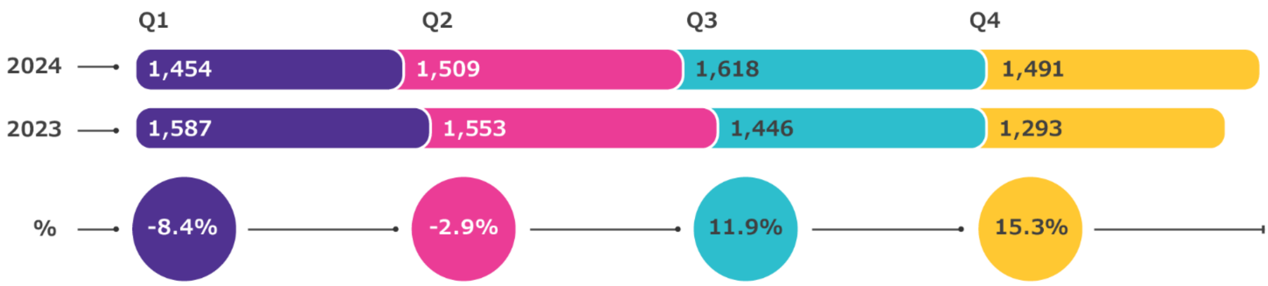
[1] Not presented: research and development costs of € 92 million allocated to Corporate and Other.

- In fiscal 2024, the operating result (EBIT) was around stable compared with the previous year. This was attributable to the around stable development of gross profit and operating expenses. The moderate organic sales decline in the Life Science business sector was offset by the organic sales growth in Healthcare and Electronics.
- Marketing and selling expenses remained around stable, as did administration expenses.
- Accounting for 69% (2023: 70%) of Group research and development costs (excluding research and development costs allocated to Corporate and Other), Healthcare was the most research-intensive business sector of the Merck Group. The decrease in research and development costs was mainly due to reduced development activity following the termination of the xevinapant development program in the second quarter of 2024 and the evobrutinib development program in the fourth quarter of 2023. Further information can be found in the “**Research and Development**” chapter.
- The negative net balance of other operating expenses and income increased compared with the previous year due to higher impairment losses on non-financial assets in particular (further information can be found in Note (19) “**Other Intangible Assets**” in the Notes to the Consolidated Financial Statements). In addition, other operating income from asset disposals was lower compared with the previous year.
- Overall, the aforementioned developments led to the EBIT margin remaining stable year on year at 17.2%.
- Compared with the previous year, EBITDA pre, the key financial indicator used to steer operating business, increased by € 193 million or 3.3% to € 6,072 million (2023: € 5,879 million).
- The financial result improved to € -108 million (2023: € -125 million), largely as a result of the favorable development of net interest income. Details about financial income and expenses can be found in Note (40) “**Finance Income and Expenses/Net Gains and Losses from Financial Instruments”** in the Notes to the Consolidated Financial Statements.
- Income tax expense amounted to € -751 million (2023: € -650 million) and resulted in a tax rate of 21.2% (2023: 18.7%). The tax rate in fiscal 2023 was lower due to a non-recurring tax effect in the form of deferred tax income.
- The net income attributable to Merck KGaA shareholders declined by -1.7% to € 2,777 million (2023: € 2,824 million) and resulted in a reduction in earnings per share to € 6.39 (2023: € 6.49).

The development of EBITDA pre in the individual quarters as well as the respective growth rates in comparison with 2023 and its distribution by business sector are presented in the following overview:

Merck Group

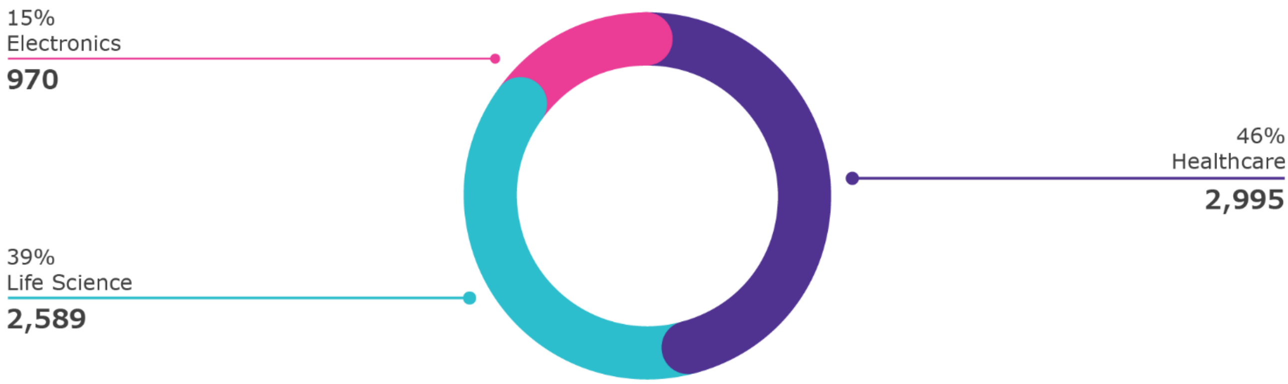
EBITDA pre[1] and change by quarter[2]
€ million/change in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Merck Group

EBITDA pre[1] by business sector[2] – 2024
€ million/%



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Not presented: decline in Group EBITDA pre by € -482 million due to Corporate and Other.

Net assets and financial position

Merck Group

Balance sheet structure

	Dec. 31, 2024		Dec. 31, 2023		Change	
	€ million	**%**	€ million	%	€ million	%
Non-current assets	**38,116**	**73.9%**	**36,102**	**74.4%**	**2,014**	**5.6%**
thereof:						
Goodwill	19,152		17,845		1,307	
Other intangible assets	6,282		6,551		-269	
Property, plant and equipment	10,025		9,056		969	
Other non-current assets	2,657		2,650		7	
Current assets	**13,450**	**26.1%**	**12,393**	**25.6%**	**1,057**	**8.5%**
thereof:						
Inventories	4,484		4,637		-153	
Trade and other current receivables	3,947		4,004		-57	
Other current financial assets	642		499		142	
Other current assets	1,861		1,271		590	
Cash and cash equivalents	2,517		1,982		535	
Total assets	**51,567**	**100.0%**	**48,495**	**100.0%**	**3,071**	**6.3%**
Equity	**29,988**	**58.2%**	**26,754**	**55.2%**	**3,233**	**12.1%**
Non-current liabilities	**10,285**	**19.9%**	**13,042**	**26.9%**	**-2,757**	**-21.1%**
thereof:						
Non-current provisions for employee benefits	1,956		2,192		-236	
Other non-current provisions	257		277		-21	
Non-current financial debt	6,997		9,239		-2,242	
Other non-current liabilities	1,075		1,333		-257	
Current liabilities	**11,294**	**21.9%**	**8,699**	**17.9%**	**2,595**	**29.8%**
thereof:						
Current provisions	570		658		-88	
Current financial debt	3,304		702		2,602	
Trade and other current payables/ refund liabilities	3,143		3,422		-279	
Other current liabilities	4,276		3,918		359	
Total equity and liabilities	**51,567**	**100.0%**	**48,495**	**100.0%**	**3,071**	**6.3%**

- The total assets of the Merck Group amounted to € 51,567 million as of December 31, 2024 (December 31, 2023: € 48,495 million), an increase of 6.3%.
- Goodwill increased compared with the previous year, in particular as a result of currency translation differences as well as the acquisition of Mirus Bio LLC, USA, Unity-SC SAS, France, and Hub Organoids Holding B.V., Netherlands (further information can be found in Note (6) “**Acquisitions and Divestments**” in the Notes to the Consolidated Financial Statements).
- Other intangible assets declined due to amortization effects in particular. Impairment losses were primarily attributable to the Healthcare business sector and mainly resulted from discontinued development projects, especially the termination of the xevinapant program (further information can be found in Note (7) “**Collaboration and licensing agreements**” in the Notes to the Consolidated Financial Statements). The increase of additions from investments and the completed acquisitions was not sufficient to offset this development.
- The year-on-year increase in property, plant and equipment was attributable to additions of € 2,088 million (2023: € 1,981 million), which once again significantly exceeded depreciation and disposals in the reporting period.
- Of the additions to property, plant and equipment in fiscal 2024, € 387 million (2023: € 391 million) related to strategic investments in Germany, including € 372 million (2023: € 329 million) for the expansion of the Darmstadt site. Significant projects include investments in the Healthcare business sector of € 81 million in a new laboratory building and € 56 million in a production facility for transitioning research and development projects to commercial production. Moreover, Life Science invested € 46 million in a new research center and € 19 million in a new membrane production plant. Outside Germany, high levels of investment were made in strategic projects in the United States (€ 314 million), Ireland (€ 145 million) and Taiwan (€ 92 million) in particular. In the United States, Life Science invested € 82 million in expanding its capacities for biosafety testing and analytical development services in Rockville, Maryland, while Electronics invested € 29 million in a new production facility for specialty gases for the semiconductor industry in Hometown, Pennsylvania. In Ireland, Life Science invested € 141 million in the expansion of membrane production capacities and the construction of a new filtration plant in Cork. In Taiwan, Electronics invested € 73 million in a new production facility for semiconductor materials and specialty gases in Kaohsiung.
- Trade and other current receivables declined slightly.
- In fiscal 2024, the equity of the Merck Group rose by 12.1% to € 29,988 million (December 31, 2023: € 26,754 million). This increase was attributable to profit after tax (€ 2,786 million) as well as a positive currency translation difference (€ 1,444 million) resulting primarily from the development of the U.S. dollar, which counteracted dividend payments and profit withdrawals in the reporting year (see “**Consolidated Statement of Changes in Net Equity**” in the Consolidated Financial Statements). The equity ratio improved by three percentage points to 58.2% (December 31, 2023: 55.2%), partially as a result of the ongoing reduction in net financial debt,
- The decrease in non-current provisions for employee benefits particularly resulted from actuarial gains in connection with the applied discount rate.
- Current provisions decreased mainly as a result of utilizations in relation to ongoing restructuring programs (further information can be found in Note (27) “**Other Provisions**” in the Notes to the Consolidated Financial Statements).
- The higher level of financial debt was due to the increase in lease liabilities as well as financial liabilities to related parties in particular. Non-current financial liabilities declined mainly as a result of the reclassification of a U.S. dollar bond with a nominal value of € 1,537 million that was issued in 2015 and due to mature in March 2025, as well as the reclassification of a euro bond with a nominal value of € 750 million that was issued in 2020 and due to mature in July 2025 to current financial assets, which increased by the corresponding amount.

The composition and the development of net financial debt were as follows:

Merck Group

Net financial debt[1]

€ million	**Dec. 31, 2024**	Dec. 31, 2023	Change € million	Change %
Bonds	7,693	7,802	-109	-1.4%
Bank loans	327	283	44	15.5%
Liabilities to related parties	1,429	1,196	233	19.5%
Loans from third parties and other financial debt	59	68	-8	-12.4%
Liabilities from derivatives (financial transactions)	31	77	-45	-58.9%
Lease liabilities	761	515	246	47.8%
Financial debt	**10,301**	**9,941**	**360**	**3.6%**
less:				
Cash and cash equivalents	2,517	1,982	535	27.0%
Other current financial assets[2]	629	459	170	37.0%
Net financial debt[1]	**7,155**	**7,500**	**-345**	**-4.6%**

[1] Not defined by International Financial Reporting Standards (IFRSs).

[2] Excluding current derivatives (operational) and contingent considerations, which are recognized in the context of business combinations according to IFRS 3.

- Bonds were reduced by the early repayment of a hybrid bond issued in 2014 with a nominal volume of € 500 million and a hybrid bond issued in 2019 with a nominal volume of € 500 million. This was partly offset by a hybrid bond issued in August 2024 with a nominal volume of € 800 million.

Merck Group

Reconciliation of net financial debt[1]

€ million	**2024**	2023
January 1	**7,500**	**8,328**
Operating cash flow	-4,586	-3,784
Payments for investments in intangible assets[2]	482	216
Payments from the disposal of intangible assets[2]	-18	-136
Payments for investments in property, plant and equipment[2]	1,702	1,807
Payments from the disposal of property, plant and equipment[2]	-27	-19
Acquisitions[2]	774	12
Payments from divestments[2]	-7	–
Change in lease liabilities	383	201
Dividend payments/profit withdrawals[2]	1,040	1,164
Currency translation difference	137	-30
Other	-225	-258
December 31	**7,155**	**7,500**

[1] Not defined by International Financial Reporting Standards (IFRS).

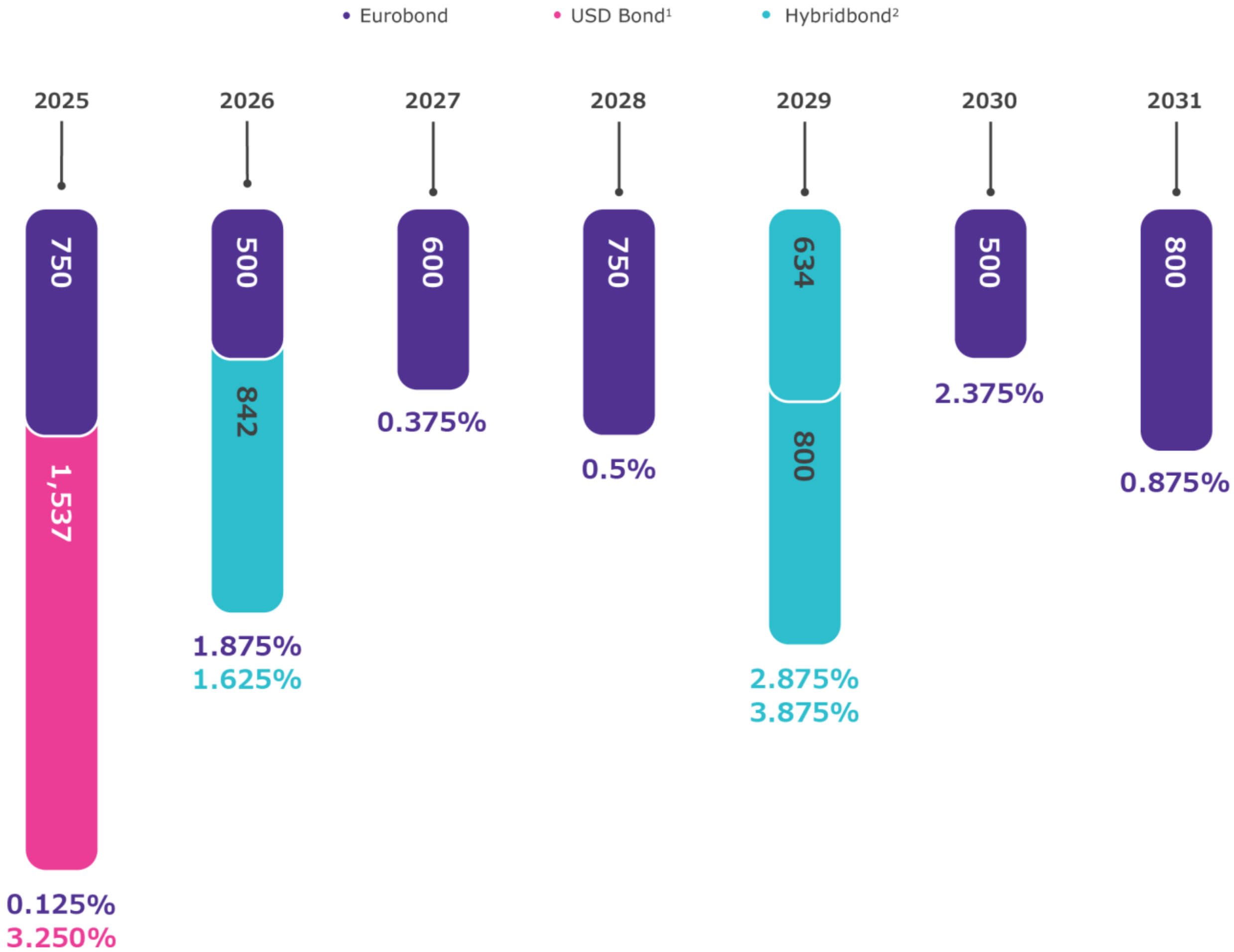
[2] As reported in the Consolidated Cash Flow Statement.

- Traditionally, the capital market represents a major source of financing for Merck, for instance, via bond issues. As of December 31, 2024, there were liabilities with a nominal volume of € 3.9 billion from the debt issuance program, under which all euro bonds are issued (December 31, 2023: € 3.9 billion).

- Loan agreements represent a further significant source of financing for Merck. A € 2.5 billion syndicated loan facility is in place until 2029 to cover unexpected cash needs. This credit line is a backup facility that is intended to be used in exceptional circumstances only. Merck also agreed upon several bilateral loan facilities.

- In addition, Merck has a commercial paper program with a volume of € 2.5 billion at its disposal. Within the scope of this program, Merck can issue short-term commercial papers with a maturity of up to one year. As in the previous year, the program was not made use of in fiscal 2024.

- The maturities of our financial liabilities are aligned with our planned free cash flow. The repayment profile of the issued bonds was as follows:



[1] The nominal amounts of bonds denominated in U.S. dollars were converted into euros at the closing rate on December 31, 2024.
[2] For the hybrid bonds, repayment is assumed at the earliest possible date.

- The capital market uses the assessments published by rating agencies to help lenders assess the risks of a financial instrument used by Merck. Merck is currently rated by Standard & Poor's and Moody's. Standard & Poor's has issued a long-term credit rating of A with a stable outlook, while Moody's has issued a rating of A3 with a stable outlook. An overview of the development of our rating in recent years is presented in the "**Report on Risks and Opportunities**".

- The financial debt was not secured by liens or similar forms of collateral. The loan agreements do not contain any financial covenants. There were no indications that the availability of extended credit lines was restricted. Cash and cash equivalents included restricted cash amounting to € 368 million (December 31, 2023: € 404 million). We pursue a sustainable dividend policy and aim for a target corridor of 20% to 25% of earnings per share pre when determining the amount of the dividend. The average borrowing cost on December 31, 2024, was 2.2% (December 31, 2023: 2.1%).

The development of key balance sheet figures was as follows:

Merck Group

Key balance sheet figures

%		**Dec. 31, 2024**	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2020
Equity ratio[1]	Total equity / Total assets	58.2%	55.2%	53.6%	47.2%	40.7%
Asset ratio[1]	Non-current assets / Total assets	73.9%	74.4%	74.9%	75.8%	77.8%
Asset coverage[1]	Total equity / Non-current assets	78.7%	74.1%	71.6%	62.3%	52.3%
Finance structure[1]	Current liabilities / Liabilities (total)	52.3%	40.0%	42.2%	43.6%	37.3%

[1] Not defined by International Financial Reporting Standards (IFRS).

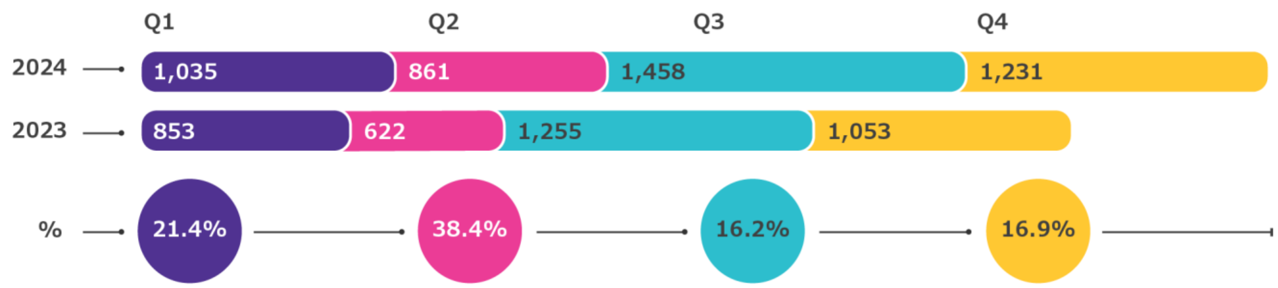
In the area of financial risks and opportunities, Merck uses an active management strategy to reduce the effects of fluctuations in exchange and interest rates. This also includes the use of derivative financial instruments. Further details on liquidity and counterparty market risks and opportunities are presented in the "**Report on Risks and Opportunities**" in the "**Financial Risks and Opportunities**" section.

In fiscal 2024, operating cash flow, which is one of the three most important key performance indicators alongside net sales and EBITDA pre, increased by € 802 million to € 4,586 million (2023: € 3,784 million). This was mainly due to the favorable development of EBITDA pre and changes in other assets and liabilities. Changes in provisions and higher tax payments had an opposing effect. Further information about the development of the operating cash flow can be found in the "**Internal Management System**" chapter in this Combined Management Report, under "**Consolidated Cash Flow Statement**" in the Consolidated Financial Statements and in Note (16) "**Operating Cash Flow**" in the Notes to the Consolidated Financial Statements.

The distribution of operating cash flow across the individual quarters and the percentage changes in comparison with 2023 were as follows:

Merck Group

Operating cash flow[1] and change by quarter[2]
€ million/change in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Overall assessment of business performance and economic situation

- Despite continued challenging macroeconomic developments and headwinds in individual markets, Merck can look back on a largely positive fiscal 2024, thanks to the diversified nature of its business sectors. The expected ongoing inventory destocking by customers in the Process Solutions business unit in parts of the fiscal year led to a decline in net sales in the Life Science business sector. However, this development was more than offset by the Healthcare and Electronics business sectors. All of the franchises in the Healthcare business sector contributed to the strong overall organic net sales growth. In the Electronics business sector, the Semiconductor Solutions business unit made a particular contribution to the overall positive development in net sales.
- All in all, net sales of the Merck Group increased by 0.8% or € 163 million to € 21,156 million in fiscal 2024. Our most important key performance indicator, EBITDA pre, rose by 3.3% to € 6,072 million. Organic growth through market opportunities (+6.9%) outweighed the impact of negative foreign exchange effects on earnings (-3.6%). We will propose to the Annual General Meeting an unchanged dividend payment of € 2.20 per share for fiscal 2024.
- The solid financing policies of the Merck Group were reflected in improved key balance sheet figures. The equity ratio remained at a high level of 58.2% as of December 31, 2024 (December 31, 2023: 55.2%). Net financial debt was reduced further, amounting to € 7.2 billion at the end of the fiscal year (2023: € 7.5 billion).
- Based on our solid net assets and financial position as well as our diversified operations, we view the economic situation of the Merck Group as positive overall. Thanks to our resilient business model and our clear positioning as a science and technology company, we are well positioned even in economically challenging times. The early decision to build up our on-site production capacities for key markets benefits us in today’s global macroeconomic environment.

Life Science

Life Science

Key figures

€ million	2024	2023	Change € million	Change %
Net sales	8,916	9,281	-365	-3.9%
Operating result (EBIT)[1]	1,507	1,850	-343	-18.6%
Margin (% of net sales)[1]	16.9%	19.9%		
EBITDA[2]	2,455	2,731	-276	-10.1%
Margin (% of net sales)[1]	27.5%	29.4%		
EBITDA pre[1]	2,589	2,820	-230	-8.2%
Margin (% of net sales)[1]	29.0%	30.4%		

[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

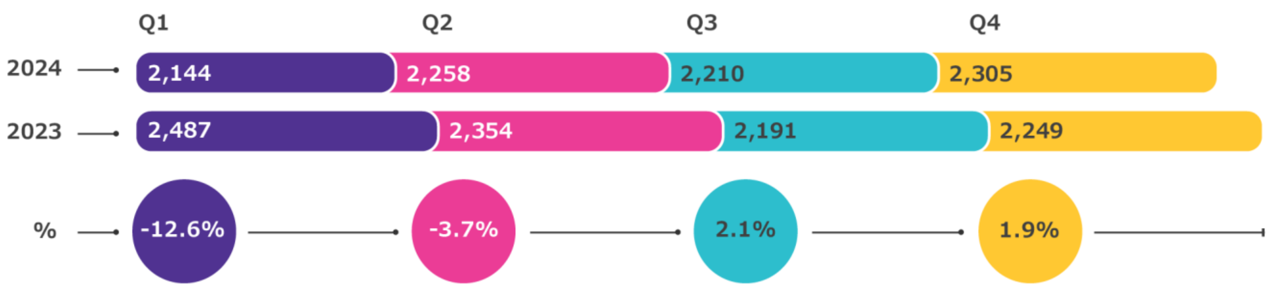
Development of sales and results of operations

The development of net sales in the individual quarters in comparison with 2023 as well as the respective organic growth rates are presented in the following graph:

Life Science

Net sales and organic growth[1] by quarter[2]

€ million/organic growth in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Life Science

Net sales by business unit

€ million	2024	Share	Organic growth[1]	Exchange rate effects[1]	Acquisitions / divestments[1]	Total change	2023	Share
Science & Lab Solutions	4,671	52%	0.2%	-0.9%	–	-0.7%	4,706	51%
Process Solutions	3,523	40%	-6.4%	-0.6%	0.2%	-6.9%	3,782	41%
Life Science Services	722	8%	-9.4%	0.6%	–	-8.9%	792	8%
Life Science	**8,916**	**100%**	**-3.3%**	**-0.7%**	**0.1%**	**-3.9%**	**9,281**	**100%**

[1] Not defined by International Financial Accounting Standards (IFRS).

- The Science & Lab Solutions business unit, which provides products and services to support life science research for pharmaceutical, biotechnology and academic research laboratories and researchers as well as scientific and industrial laboratories, saw organic growth of 0.2% in fiscal 2024. In general, the year-on-year comparison is impacted by a base effect, as the first half of 2023 was still driven by higher Covid-19-related sales and a more favorable economic environment, leading to an overall organic sales decline in the first half of 2024. However, the second half of 2024 showed an organic increase impacted by, among other things, a base effect in the year-earlier period that was driven by the roll-out of an ERP system. The Latin America region made the strongest organic growth contribution. However, unfavorable foreign exchange effects led to a sales decrease to € 4,671 million (2023: € 4,706 million).

- The Process Solutions business unit, which markets products and services for the entire pharmaceutical production value chain, saw an organic decrease of -6.4% in 2024 due to the continued presence of pandemic-related sales in the year-earlier period as well as the ongoing effects of destocking by key customers. These factors contributed to the organic decline in sales in the first half of 2024. After the phasing out of these factors, Process Solutions saw a recovery in the second half of 2024 and made a favorable contribution in this period. The decline in net sales impacted all core regions (North America, Europe, Asia-Pacific).

- The Life Science Services business unit, which offers services for fully integrated contract development and manufacturing as well as contract testing services, recorded an organic sales decline of -9.4% in fiscal 2024. This was mainly driven by one of the customers of our contract development and manufacturing organization (CDMO) adjusting its supply chain. In addition, sales from our CDMO activities declined organically due to the loss of pandemic-related sales that still positively affected the previous year. Including a favorable foreign exchange effect, sales decreased to € 722 million in fiscal 2024 (2023: € 792 million). The decrease in sales was mainly attributable to Europe and North America.

Net sales of the business sector by region developed as follows:

Life Science

Net sales by region

€ million	**2024**	**Share**	**Organic growth[1]**	**Exchange rate effects[1]**	**Acquisitions/ divestments[1]**	**Total change**	2023	Share
Europe	3,136	35%	-1.8%	0.5%	–	-1.3%	3,178	34%
North America	3,146	35%	-6.8%	0.0%	0.2%	-6.7%	3,372	36%
Asia-Pacific (APAC)	2,143	24%	-2.8%	-2.5%	–	-5.3%	2,263	25%
Latin America	382	4%	13.5%	-5.0%	–	8.6%	352	4%
Middle East and Africa (MEA)	109	1%	-6.1%	-0.1%	–	-6.2%	116	1%
Life Science	**8,916**	**100%**	**-3.3%**	**-0.7%**	**0.1%**	**-3.9%**	**9,281**	**100%**

[1] Not defined by International Financial Accounting Standards (IFRS).

The following table presents the composition of EBITDA pre for 2024 in comparison with 2023. The International Financial Reporting Standards (IFRS) figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Life Science

Reconciliation EBITDA pre[1]

	2024			2023			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**8,916**	**–**	**8,916**	**9,281**	**–**	**9,281**	**-3.9%**
Cost of sales	-4,150	25	-4,125	-4,236	6	-4,230	-2.5%
Gross profit	**4,766**	**25**	**4,791**	**5,044**	**6**	**5,050**	**-5.1%**
Marketing and selling expenses	-2,238	25	-2,213	-2,245	12	-2,232	-0.9%
Administration expenses	-441	58	-382	-425	53	-372	2.7%
Research and development costs	-388	1	-387	-396	3	-393	-1.6%
Impairment losses and reversals of impairment losses on financial assets (net)	-7	–	-7	-2	–	-2	>100.0%
Other operating income and expenses	-186	111	-75	-126	48	-78	-4.5%
Operating result (EBIT)[1]	**1,507**			**1,850**			
Depreciation/amortization/ impairment losses/reversals of impairment losses	948	-86	863	881	-34	848	1.8%
EBITDA[2]	**2,455**			**2,731**			
Restructuring expenses	73	-73	–	30	-30	–	
Integration expenses/IT expenses	46	-46	–	53	-53	–	
Gains (-)/losses (+) on the divestment of businesses	1	-1	–	–	–	–	
Acquisition-related adjustments	14	-14	–	6	-6	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[2]	**2,589**	**–**	**2,589**	**2,820**	**–**	**2,820**	**-8.2%**
of which: organic growth[1]							-6.3%
of which: exchange rate effects							-1.7%
of which: acquisitions/ divestments							-0.2%

[1] Not defined by International Financial Reporting Standards (IFRS).

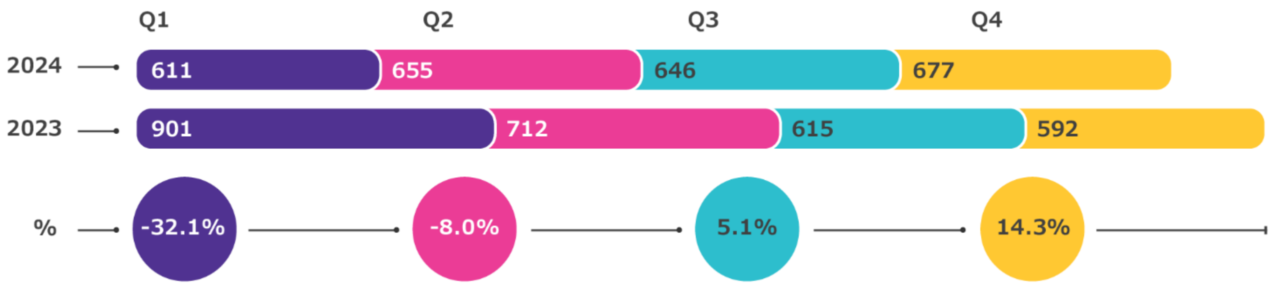
[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

- The adjusted gross profit for the Life Science business sector was lower in 2024 in comparison with fiscal 2023. This was mainly attributable to the sales decline due to the effects of destocking by key customers in Process Solutions and the decrease in both pandemic-related sales and fixed plant costs. At 53.7%, the adjusted gross margin in fiscal 2024 was slightly below the previous year (2023: 54.4%).
- The reduction in gross profit was partly offset by slightly lower adjusted operational expenses. The decrease in marketing and selling expenses in 2024 was mainly driven by cost saving and efficiency programs as well as lower logistics costs resulting from the lower sales volume and efficiencies.
- Administration expenses increased as a result of higher personnel costs, especially as a result of regular annual salary increases; however, these were partially offset by saving measures. Research and development costs after eliminating adjustments and the net position of other operating income and expenses remained largely stable in 2024 compared with fiscal 2023; this also was due to saving measures offsetting regular annual salary increases.
- In 2024, EBITDA pre declined organically compared with fiscal 2023, resulting in an EBITDA pre margin of 29.0% (2023: 30.4%).

The development of EBITDA pre in the individual quarters in comparison with 2023 is presented in the following overview:

Life Science

EBITDA pre[1] and change by quarter[2]
€ million/change in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Healthcare

Healthcare

Key figures

€ million	**2024**	2023	Change € million	Change %
Net sales	8,455	8,053	401	5.0%
Operating result (EBIT)[1]	2,481	2,225	256	11.5%
Margin (% of net sales)[1]	29.3%	27.6%		
EBITDA[2]	3,021	2,545	476	18.7%
Margin (% of net sales)[1]	35.7%	31.6%		
EBITDA pre[1]	2,995	2,543	452	17.8%
Margin (% of net sales)[1]	35.4%	31.6%		

[1] Not defined by International Financial Reporting Standards (IFRS).

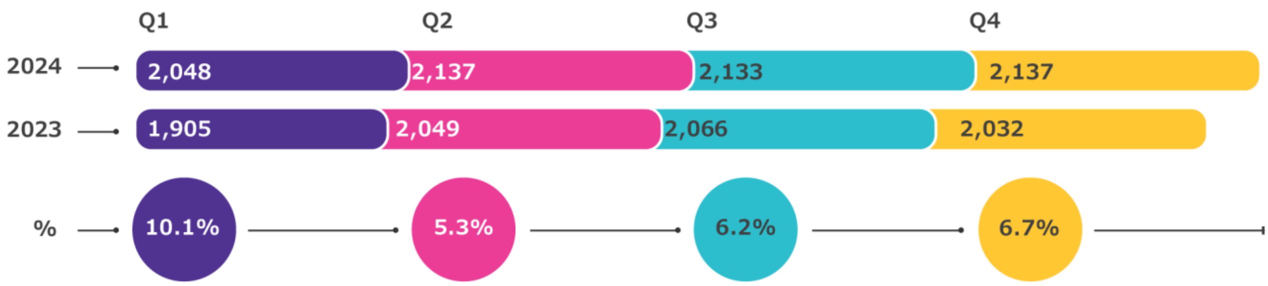
[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

Development of sales and results of operations

The development of net sales in the individual quarters in comparison with 2023 as well as the respective organic growth rates are presented in the following graph:

Healthcare

Net sales and organic growth[1] by quarter[2]
€ million/organic growth in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Net sales of the key product lines and products developed as follows in 2024:

Healthcare

Net sales by major product lines/products

€ million	2024	Share	Organic growth[1]	Exchange rate effects[1]	Total change[1]	2023	Share
Oncology	**2,009**	**24%**	**12.7%**	**-2.2%**	**10.5%**	**1,819**	**22%**
thereof: Erbitux®	1,162	14%	15.7%	-2.4%	13.3%	1,025	13%
thereof: Bavencio®	735	9%	5.0%	-1.9%	3.0%	713	9%
Neurology & Immunology	**1,688**	**20%**	**2.3%**	**-0.9%**	**1.4%**	**1,665**	**21%**
thereof: Mavenclad®	1,062	13%	12.3%	-1.2%	11.1%	956	12%
thereof: Rebif®	626	7%	-11.1%	-0.5%	-11.6%	709	9%
Fertility	**1,528**	**18%**	**0.8%**	**-2.1%**	**-1.3%**	**1,547**	**19%**
thereof: Gonal-f®	833	10%	0.9%	-2.6%	-1.7%	847	11%
Cardiovascular, Metabolism & Endocrinology	**2,949**	**35%**	**8.5%**	**-2.7%**	**5.8%**	**2,786**	**35%**
thereof: Glucophage®	954	11%	11.1%	-3.0%	8.1%	882	11%
thereof: Concor®	611	7%	9.4%	-2.4%	7.0%	571	7%
thereof: Euthyrox®	619	7%	11.8%	-2.3%	9.5%	565	7%
thereof: Saizen®	366	4%	12.5%	-2.4%	10.1%	332	4%
Other	**280**	**3%**				**235**	**3%**
Healthcare	**8,455**	**100%**	**7.0%**	**-2.0%**	**5.0%**	**8,053**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

- In fiscal 2024, the oncology drug Erbitux® (cetuximab) saw organic net sales growth in the mid-teen percentage range, driven by all regions. This was attributable to factors including weaker pandemic-related sales in China in 2023 as well as its inclusion in reimbursement programs for pharmaceuticals in several countries.
- In immuno-oncology, the oncology drug Bavencio® (avelumab) recorded solid year-on-year organic net sales growth in the reporting period. A sales decrease in the high-teen percentage range in the North America region was driven by lower demand due to alternative treatments for patients with locally advanced or metastatic urothelial carcinoma. This decline was more than offset by growth in the other regions.
- Mavenclad® for the oral short-course treatment of highly active relapsing multiple sclerosis (MS) recorded organic net sales growth in the region of 12% in fiscal 2024, thus achieving blockbuster status with total net sales of more than US$ 1 billion for the second year in succession. This favorable sales growth was driven by all regions, but especially by higher demand in the North America, Europe and Latin America regions.
- Rebif®, which is used to treat relapsing forms of multiple sclerosis, saw an organic net sales decline in the region of 11% in fiscal 2024. This was attributable to the ongoing difficult competitive situation in the interferon market due to competition from oral dosage forms and high-efficacy MS therapies, which are expected to cause further declines in sales in the future.
- Net sales in the Fertility product line in the reporting period were broadly unchanged year on year. Gonal-f®, the leading recombinant hormone used in the treatment of infertility, also recorded largely stable organic net sales performance compared with the previous year. Similarly, other Fertility products remained essentially unchanged year-on-year overall.
- The Cardiovascular, Metabolism & Endocrinology franchise, which includes drugs for the treatment of cardiovascular, thyroid, diabetes and growth disorders as well as diabetes, generated strong organic net sales growth in fiscal 2024, thanks to higher demand. Net sales of the diabetes drug Glucophage® saw growth of around 11%, driven by all regions. The beta-blocker Concor® also recorded strong organic sales growth, while the thyroid product Euthyrox® achieved year-on-year organic sales growth of around 12%. Saizen®, a medication for treating various growth hormone deficiencies, saw organic sales growth in the low-teen

percentage range compared with the previous year as a result of higher demand as well as stock-outs of a competing product.

Healthcare

Product sales and organic growth[1] of Erbitux®, Glucophage® and Mavenclad® by region – 2024

		Total	Europe	North America	Asia-Pacific (APAC)	Latin America	Middle East and Africa (MEA)
Erbitux®	€ million	1,162	461	–	502	134	66
	Organic growth[1]	15.7%	10.9%	–	10.9%	61.6%	19.7%
	Share	100%	40%	–	43%	11%	6%
Mavenclad®	€ million	1,062	376	563	21	58	44
	Organic growth[1]	12.3%	6.0%	15.0%	6.3%	39.3%	8.8%
	Share	100%	35%	53%	2%	6%	4%
Glucophage®	€ million	954	136	–	502	214	102
	Organic growth[1]	11.1%	7.7%	–	9.7%	12.5%	20.7%
	Share	100%	14%	–	53%	22%	11%

[1] Not defined by International Financial Reporting Standards (IFRS).

Net sales in the Healthcare business sector by region in 2024 developed as follows:

Healthcare

Net sales by region

€ million	**2024**	**Share**	**Organic growth[1]**	**Exchange rate effects[1]**	**Acquisitions/ divestments[1]**	**Total change**	2023	Share
Europe	2,720	32%	8.2%	-1.2%	–	7.0%	2,541	31%
North America	1,778	21%	-0.6%	-0.2%	–	-0.8%	1,793	22%
Asia-Pacific (APAC)	2,305	27%	6.1%	-2.8%	–	3.3%	2,232	28%
Latin America	1,056	13%	18.3%	-5.9%	–	12.3%	941	12%
Middle East and Africa (MEA)	595	7%	11.0%	-2.1%	–	8.9%	546	7%
Healthcare	**8,455**	**100%**	**7.0%**	**-2.0%**	**–**	**5.0%**	**8,053**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

The following table presents the composition of EBITDA pre in fiscal 2024 in comparison with 2023. The IFRS figures have been modified to reflect the elimination of adjustments included in the functional costs.

Healthcare

Reconciliation EBITDA pre[1]

	2024			2023			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**8,455**	**–**	**8,455**	**8,053**	**–**	**8,053**	**5.0%**
Cost of sales	-2,201	–	-2,201	-2,029	-1	-2,030	8.4%
Gross profit	**6,254**	**–**	**6,254**	**6,024**	**-1**	**6,023**	**3.8%**
Marketing and selling expenses	-1,713	3	-1,710	-1,668	29	-1,639	4.3%
Administration expenses	-313	12	-301	-314	20	-294	2.6%
Research and development costs	-1,503	9	-1,493	-1,657	2	-1,655	-9.8%
Impairment losses and reversals of impairment losses on financial assets (net)	2	–	2	-41	–	-41	>100.0%
Other operating income and expenses	-247	110	-137	-120	-41	-161	-15.4%
Operating result (EBIT)[1]	**2,481**			**2,225**			
Depreciation/amortization/ impairment losses/reversals of impairment losses	540	-160	380	320	-10	310	22.5%
EBITDA[2]	**3,021**			**2,545**			
Restructuring expenses	8	-8	–	32	-32	–	
Integration expenses/IT expenses	11	-11	–	20	-20	–	
Gains (-)/losses (+) on the divestment of businesses	-45	45	–	-53	53	–	
Acquisition-related adjustments	–	–	–	–	–	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**2,995**	**–**	**2,995**	**2,543**	**–**	**2,543**	**17.8%**
of which: organic growth[1]							22.7%
of which: exchange rate effects							-5.0%
of which: acquisitions/ divestments							–

[1] Not defined by International Financial Reporting Standards (IFRS).

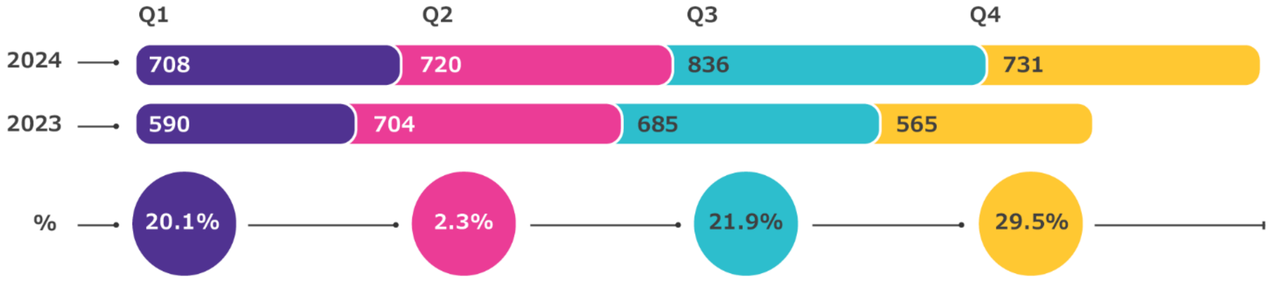
[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

- In fiscal 2024, gross profit after the elimination of adjustments saw a moderate increase, whereas the gross margin, at 74.0% (2023: 74.8%), decreased slightly year on year.
- Marketing and selling expenses moderately increased in the reporting period. Among other things, this was due to the termination of the strategic alliance with Pfizer Inc., USA (Pfizer), to co-develop and co-commercialize the oncology medicine Bavencio® with effect from June 30, 2023, which has resulted in increased selling activities at Merck since the second half of 2023.
- Administrative expenses after eliminating adjustments saw a moderate year-on-year increase in fiscal 2024, whereas research and development costs after eliminating adjustments declined strongly in the reporting period. This was mainly due to reduced development activity following the termination of the xevinapant development program in the second quarter of 2024 and the evobrutinib development program in the fourth quarter of 2023.
- In fiscal 2024, the negative net balance of other operating expenses and income after eliminating adjustments declined compared with the previous year. This positive development was mainly due to effects from the termination of the strategic alliance with Pfizer to co-develop and co-commercialize the oncology medicine Bavencio®. The royalty payments to Pfizer that replaced the profit share payments for Bavencio® in other operating expenses have since been included in cost of sales, which led to a corresponding decrease in other operating expenses. This effect more than offset the absence of income from the disposal of a non-strategic brand in the previous year.
- EBITDA pre saw growth in the high-teen percentage range in fiscal 2024, resulting in an EBITDA pre margin of 35.4% (2023: 31.6%).

The development of EBITDA pre in the individual quarters in comparison with 2023 is presented in the following overview:

Healthcare

EBITDA pre[1] and change by quarter[2]
€ million/change in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Electronics

Electronics
Key figures

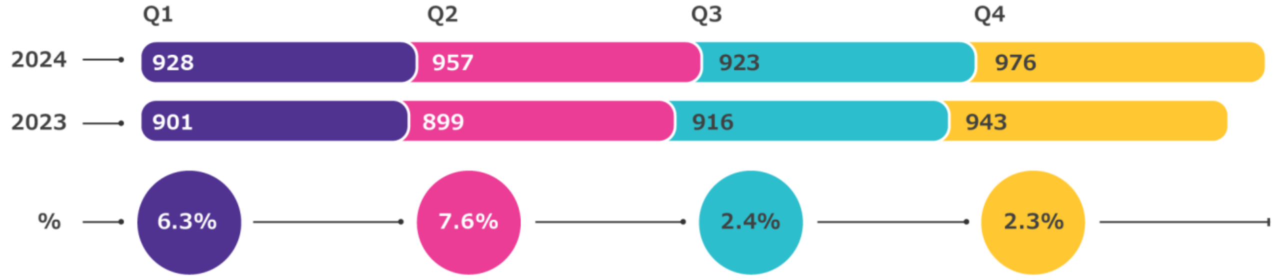
€ million	2024	2023	Change € million	Change %
Net sales	3,785	3,659	126	3.4%
Operating result (EBIT)[1]	360	248	112	45.3%
Margin (% of net sales)[1]	9.5%	6.8%		
EBITDA[2]	887	816	71	8.7%
Margin (% of net sales)[1]	23.4%	22.3%		
EBITDA pre[1]	970	913	57	6.2%
Margin (% of net sales)[1]	25.6%	25.0%		

[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

Development of net sales and results of operations

The development of net sales in the individual quarters in comparison with 2023 as well as the respective organic growth rates are presented in the following graph:

Electronics
Net sales and organic growth[1] by quarter[2]
€ million/organic growth in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Electronics
Net sales by business unit

€ million	2024	Share	Organic growth[1]	Exchange rate effects[1]	Acquisitions /divestments[1]	Total change	2023	Share
Semiconductor Solutions	2,631	69%	7.8%	-1.4%	-0.3%	6.1%	2,479	68%
Display Solutions	748	20%	-3.4%	-1.4%	2.0%	-2.8%	770	21%
Surface Solutions	406	11%	0.2%	-1.3%	–	-1.1%	411	11%
Electronics	**3,785**	**100%**	**4.6%**	**-1.4%**	**0.2%**	**3.4%**	**3,659**	**100%**

[1] Not defined by International Financial Accounting Standards (IFRS).

- The Semiconductor Solutions business unit, which comprises the Semiconductor Materials and Delivery Systems & Services (DS&S) businesses, demonstrated strong organic sales growth in fiscal 2024. With organic growth in the mid-teen percentage range, Semiconductor Materials was the main driver for the business unit. Increased demand for advanced nodes enabling artificial intelligence (AI) applications also helped propel the business as the overall market cycle recovered from a weak financial year 2023. The development in DS&S tempered the growth of Semiconductor Solutions with lower sales from large projects than in the previous year, when it generated record sales and partly offset declines in the Semiconductor Materials business.
- Net sales of the Display Solutions business unit (named Optronics since January 1, 2025), consisting mainly of the business with liquid crystals, photoresists for display applications, OLED materials and metrology solutions, recorded a moderate organic decline in fiscal 2024. Continued price declines, especially in liquid crystals, were partially offset by additional volume growth in liquid crystals and OLED solutions. The portfolio effect was due to the acquisition of Unity-SC SAS, France, a company specializing in metrology solutions, with the transaction closing in the fourth quarter of 2024.
- The Surface Solutions business was organically stable in fiscal 2024, as softer demand in cosmetics offset moderate gains in industrials and coatings.

Net sales of the Electronics business sector by region developed as follows:

Electronics

Net sales by region

€ million	**2024**	**Share**	**Organic growth[1]**	**Exchange rate effects[1]**	**Acquisitions/ divestments[1]**	**Total change**	2023	Share
Europe	316	8%	-1.2%	0.0%	0.3%	-0.8%	318	9%
North America	785	21%	-0.3%	-0.0%	–	-0.3%	787	21%
Asia-Pacific (APAC)	2,569	68%	7.3%	-2.0%	0.0%	5.3%	2,440	67%
Latin America	38	1%	1.8%	-3.3%	–	-1.4%	39	1%
Middle East and Africa (MEA)	77	2%	-5.3%	-0.3%	9.2%	3.6%	75	2%
Electronics	**3,785**	**100%**	**4.6%**	**-1.4%**	**0.2%**	**3.4%**	**3,659**	**100%**

[1] Not defined by International Financial Reporting Standards (IFRS).

The following table presents the composition of EBITDA pre for 2024 in comparison with 2023. The IFRS figures have been modified to reflect the elimination of adjustments included in the respective functional costs.

Electronics

Reconciliation EBITDA pre[1]

	2024			2023			Change
€ million	IFRS	Elimination of adjustments	Pre[1]	IFRS	Elimination of adjustments	Pre[1]	Pre[1]
Net sales	**3,785**	**–**	**3,785**	**3,659**	**–**	**3,659**	**3.4%**
Cost of sales	-2,319	16	-2,303	-2,332	37	-2,295	0.3%
Gross profit	**1,466**	**16**	**1,483**	**1,327**	**37**	**1,364**	**8.7%**
Marketing and selling expenses	-568	2	-566	-591	3	-588	-3.7%
Administration expenses	-166	33	-133	-147	29	-118	12.1%
Research and development costs	-297	1	-296	-297	1	-297	-0.2%
Impairment losses and reversals of impairment losses on financial assets(net)	-2	2	–	–	–	–	>100.0%
Other operating income and expenses	-75	58	-16	-44	70	26	>100.0%
Operating result (EBIT)[1]	**360**			**248**			
Depreciation/amortization/ impairment losses/reversals of impairment losses	527	-29	498	568	-42	526	-5.3%
EBITDA[2]	**887**			**816**			
Restructuring expenses	22	-22	–	60	-60	–	
Integration expenses/IT expenses	32	-32	–	24	-24	–	
Gains (-)/losses (+) on the divestment of businesses	17	-17	–	–	–	–	
Acquisition-related adjustments	12	-12	–	13	-13	–	
Other adjustments	–	–	–	–	–	–	
EBITDA pre[1]	**970**	**–**	**970**	**913**	**–**	**913**	**6.2%**
of which: organic growth[1]							6.9%
of which: exchange rate effects							-1.0%
of which: acquisitions/ divestments							0.2%

[1] Not defined by International Financial Reporting Standards (IFRS).

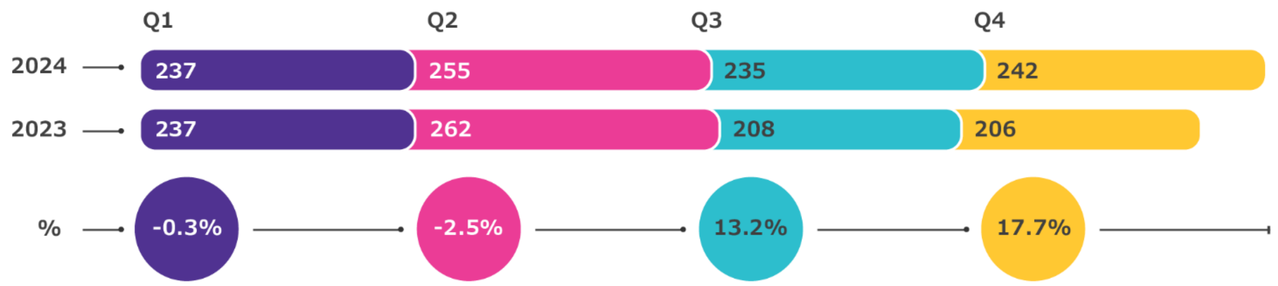
[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

- The adjusted gross profit for the Electronics business sector increased strongly in 2024, driven by the aforementioned sales growth. At 39.2%, the adjusted gross margin increased compared with the previous year (2023: 37.3%), benefitting from higher volumes, positive mix effects and hence improved fixed costs coverage.
- Marketing and selling expenses decreased compared with the previous year as the business benefitted from initiatives that addressed costs and efficiency across marketing and selling expenses, including logistics. Administration expenses mainly increased due to higher personnel costs due to regular annual salary increases, as well as rising IT costs and unfavorable foreign exchange effects. Furthermore, the net position of other operating income and expenses declined. This was mainly due to the one-time income effect from the disposal of OLED patents and licenses to the Universal Display Corporation, USA, in fiscal 2023.
- As a result, EBITDA pre increased year-on-year in fiscal 2024. The EBITDA pre margin increased to 25.6% in fiscal 2024 (2023: 25.0%).

The development of EBITDA pre in the individual quarters in comparison with 2023 is presented in the following overview:

Electronics

EBITDA pre[1] and change by quarter[2]
€ million/change in %



[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

Corporate and Other

Corporate and Other comprises administrative expenses for central Group functions that cannot be directly allocated to the business sectors.

Corporate and other

Key figures

			Change	
€ million	**2024**	2023	€ million	%
Operating result (EBIT)[1]	-702	-713	11	-1.5%
EBITDA[2]	-584	-603	19	-3.2%
EBITDA pre[1]	-482	-397	-85	21.4%

[1] Not defined by International Financial Reporting Standards (IFRS).

[2] Not defined by International Financial Reporting Standards (IFRS); EBITDA corresponds to operating result (EBIT) adjusted by depreciation, amortization, impairment losses, and reversals of impairment losses.

The improvement in the operating result and EBITDA in fiscal 2024 in comparison with the previous year resulted in particular from a reduction in expenses in connection with a program to continuously improve processes and align the enabling Group functions more closely with the businesses. This decrease was partly offset by higher ongoing administrative expenses, which led to a decline in EBITDA pre. Cross-business research and development costs amounting to € 92 million (2023: € 94 million) were allocated to Corporate and Other.