Course of Business and Economic Position

Group

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.

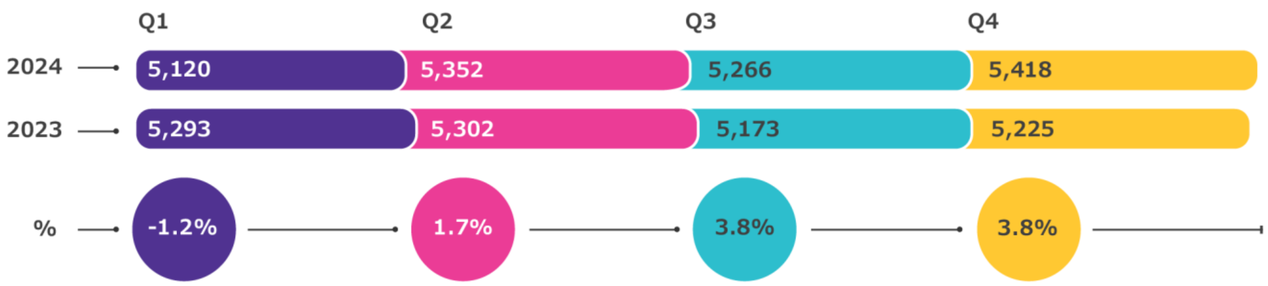
Development of sales and results of operations

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

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:

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%
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 Group recorded the following regional sales performance:

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%
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 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 Group is as follows:

Group

Consolidated Income Statement

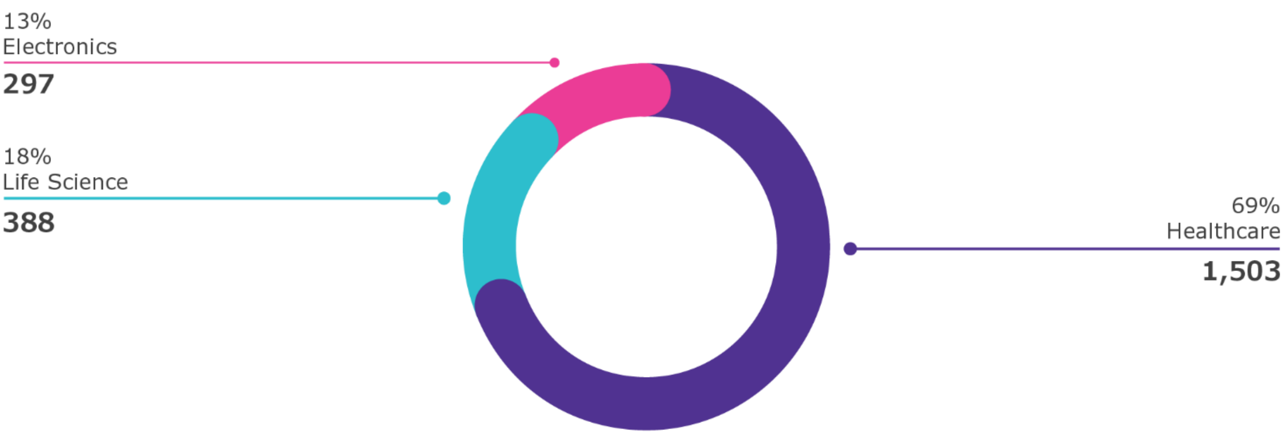
€ million	2024	%	2023	%	Change € million	Change %
Net sales	**21,156**	**100.0%**	**20,993**	**100.0%**	**163**	**0.8%**
Cost of sales	-8,671	-41.0%	-8,600	-41.0%	-71	0.8%
Gross profit	**12,485**	**59.0%**	**12,392**	**59.0%**	**92**	**0.7%**
Marketing and selling expenses	-4,536	-21.4%	-4,510	-21.5%	-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:

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.

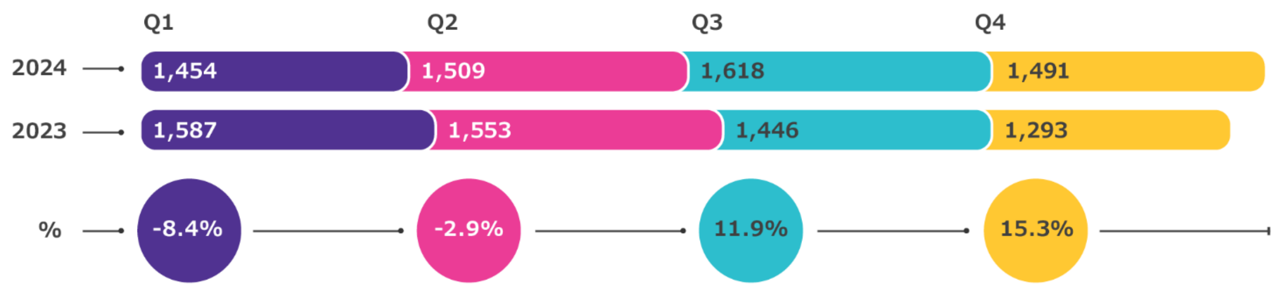
- In fiscal 2024, the operating result (EBIT) was around stable compared with the previous year. This was attributable to the around stable development of gross profit and operating expenses. The moderate organic sales decline in the Life Science business sector was offset by the organic sales growth 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 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 shareholders of Merck KGaA, Darmstadt, Germany, 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:

Group

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

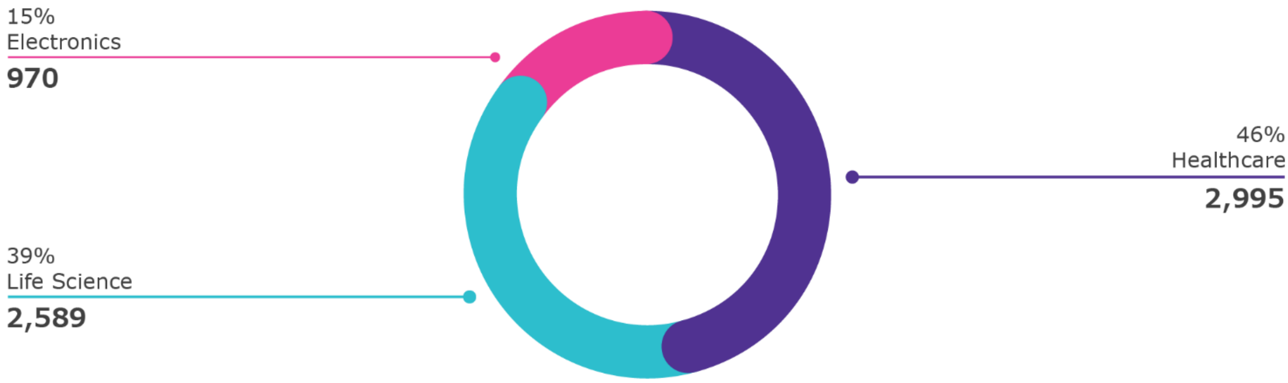


[1] Not defined by International Financial Reporting Standards (IFRS).
[2] Quarterly breakdown unaudited.

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

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 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 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:

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.

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).

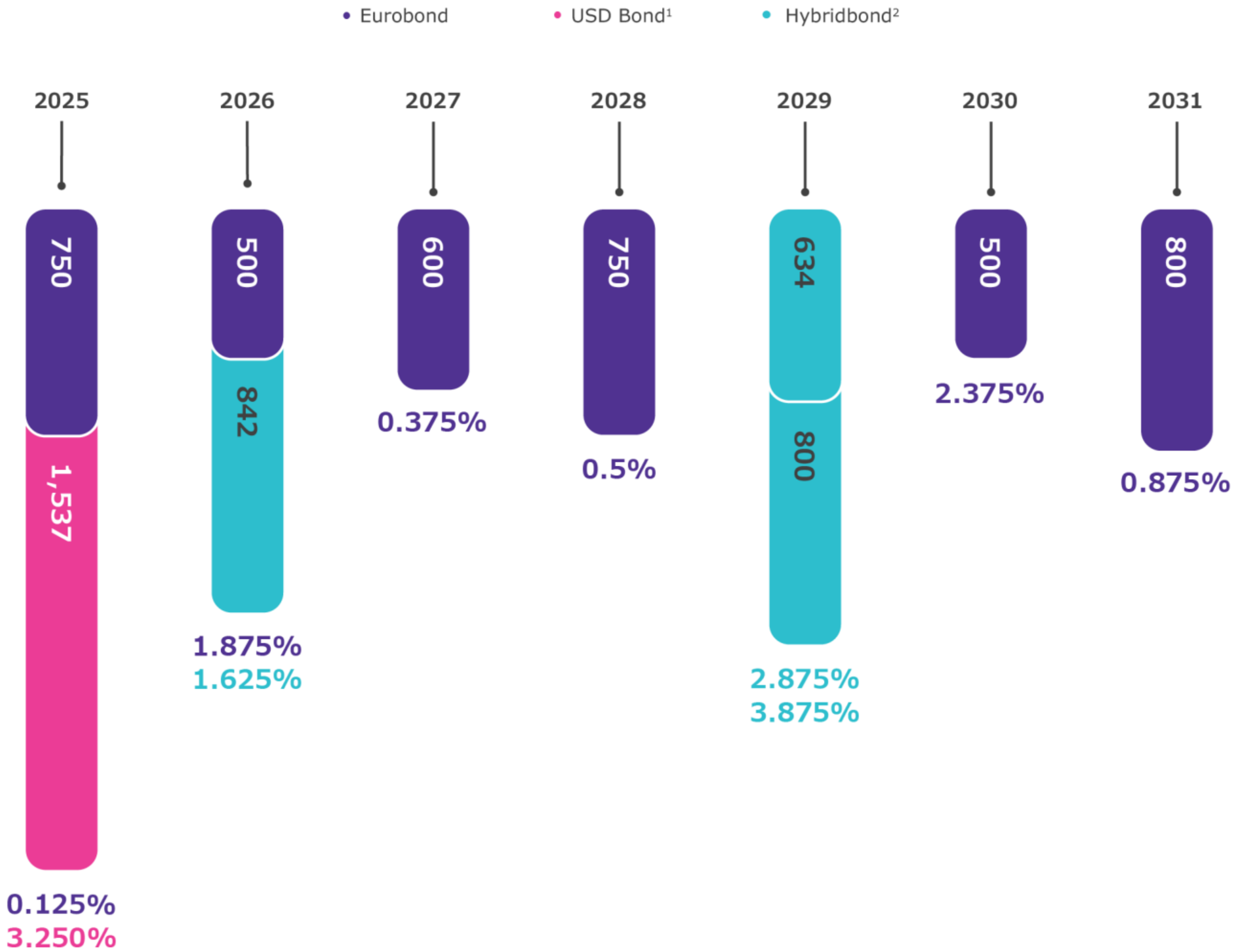
[2] As reported in the Consolidated Cash Flow Statement.

- Traditionally, the capital market represents a major source of financing for the Group, 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 the Group. 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. The Group also agreed upon several bilateral loan facilities.

- In addition, the Group has a commercial paper program with a volume of € 2.5 billion at its disposal. Within the scope of this program, the Group 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 the Group. We are 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:

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	58.2%	55.2%	53.6%	47.2%	40.7%
	Total assets	0.0%	0.0%	0.0%	0.0%	0.0%
Asset ratio[1]	Non-current assets	73.9%	74.4%	74.9%	75.8%	77.8%
	Total assets	0.0%	0.0%	0.0%	0.0%	0.0%
Asset coverage[1]	Total equity	78.7%	74.1%	71.6%	62.3%	52.3%
	Non-current assets	0.0%	0.0%	0.0%	0.0%	0.0%
Finance structure[1]	Current liabilities	52.3%	40.0%	42.2%	43.6%	37.3%
	Liabilities (total)	0.0%	0.0%	0.0%	0.0%	0.0%

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

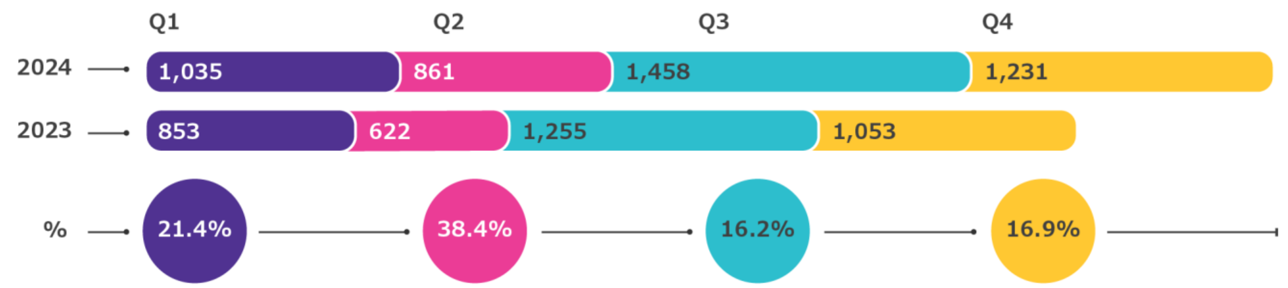
In the area of financial risks and opportunities, the Group uses an active management strategy to reduce the effects of fluctuations in exchange and interest rates. This also includes the use of derivative financial instruments. Further details on liquidity and counterparty market risks and opportunities 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:

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, the Group 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 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 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 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.