To our shareholders

- 7 Letter from Belén Garijo
- **9** The Executive Board
- **10** Our Shares

Dear shereholder, dear friends,

We have successfully navigated through many challenging times in our 355-year history. The year 2023 provided yet another opportunity to demonstrate our resilience to the world. Despite a difficult global macroeconomic environment and the geopolitical situation, our Group performed robustly.

Once again, we demonstrated the competitive strengths of our people, the diversification of our business sectors, and our global footprint. In our Life Science business, demand declined as expected in 2023 due to the end of the Covid-19 pandemic. Pronounced destocking by customers within Process Solutions has also been longer in duration than expected. In parallel, our Electronics business faced a prolonged downcycle in Semiconductor Solutions and the Display Solutions unit was affected by low customer demand.

The strong performance of our Healthcare business sector mainly offset these temporary, industry-wide challenges. In particular, our new products experienced robust growth. Full-year net sales of our multiple sclerosis medicine Mavenclad® exceeded US\$ 1 billion for the first time, joining our cancer medicine Erbitux®, which maintained its blockbuster status for the second year in a row. Our immuno-oncology drug Bavencio®, to which we regained sole ownership rights on June 30, 2023, generated organic net sales growth of 23.4%. This was complemented by the solid performance of both our Fertility and our Cardiovascular, Metabolism, and Endocrinology franchises.

The competitive strength of our global business footprint was demonstrated by moderate Group exposure to localized economic trends in 2023. Our business operations in Asia-Pacific, North America and Europe as well as other geographic regions made important financial contributions.

Overall, Group net sales of \in 21.0 billion were about at the mid-point of the absolute guidance range. Due to the aforementioned factors as well as negative foreign exchange effects and inflationary pressures, EBITDA pre in 2023 was also within our guidance range at \in 5.9 billion, albeit at the lower end of the corridor.

We are grateful to our approximately 63,000 employees around the world for their exceptional dedication and resilience and would like to thank our many partners and suppliers for their important contributions to this performance. Furthermore, in recognition of the contribution of shareholders, we will propose to the Annual General Meeting a dividend of \leqslant 2.20 per share for 2023.



We remain firmly positioned to return to growth in 2024 and generate long-term, sustainable value for our owners, shareholders, customers, patients, employees, and society.

Belén Garijo

Looking forward, we expect that global economic and geopolitical challenges will continue to adversely affect our activities through 2024. However, based on current forecasts, we anticipate a gradual return to organic sales growth during the year.

We expect our Life Science business sector to recover in the course of the year with the expected end of the destocking phase within Process Solutions on the one hand and improving conditions in Science & Lab Solutions on the other hand. Within our Healthcare business sector, growth rates should begin to normalize and more closely align with our mid-term targets. And within our Electronics business sector, we expect to benefit from an upswing in customer demand for Semiconductor Solutions as the market gradually recovers.

Looking beyond 2024, our Group remains firmly positioned for long-term growth and impact as a leading science and technology company with a clear purpose to advance human progress. In addition to favorable macrotrends such as the digital transformation of markets by generative AI and machine learning technologies, many other forces are expected to drive growth across each of our three sectors. They include novel drug modalities in Life Science, growing patient needs for cancer, neurological and immunological treatments in Healthcare, and AI-enabling chips and high-performance computing demanding more and novel materials in Electronics. Our teams are closely monitoring these and other trends to help us anticipate potential scenarios and adapt with speed and agility to protect or expand our competitive positions.

We continue to make strategic investments, enter collaborations, and adapt our businesses in order to constantly improve our competitive position and anticipate emerging market needs even more proactively. In Germany, the United States, Switzerland, China, the United Kingdom, Korea, and other countries across our global network, we invested significantly in new and upgraded sites and capabilities. With these and other significant capital expenditure projects, we are striving to move even closer and become more responsive to customers and patients worldwide. We assume that this overall momentum in operational expenditure will continue through 2025 and beyond. However, we reserve the flexibility to respond to further market changes.

Despite the disappointing news in December 2023 that the Phase III clinical trials of evobrutinib did not meet their primary endpoints, we remain confident in the position of our Healthcare business sector as a global specialty innovator. In addition to the continued resilience of our established product portfolio, we look forward to the progress of many investigational therapies within our Healthcare pipeline, such as xevinapant in oncology and enpatoran to treat autoimmune diseases such as systemic and cutaneous lupus erythematosus. Boosted by various in-licensing of external innovation, including those announced in 2023, such as with Hengrui and Abbisko, we aim to introduce one new product or major indication every 1.5 years on average.

Finally, I am pleased by the significant strides being made to achieve our three core sustainability targets. By 2030, we aim to have fully integrated sustainability into our value chains and contributed to human progress for more than one billion people through sustainable science and technology. And by 2040, we expect to achieve climate-neutrality and significantly reduce our resource consumption. After entering into virtual power purchase agreements in 2023, renewable energy is expected to cover 100% of our current electricity purchases in Europe, more than 90% in North America, and 70% worldwide from 2025.

As you continue to read this Annual Report, you will see that we remain firmly positioned to both return to growth in 2024 and generate long-term, sustainable value for our owners, shareholders, customers, patients, employees, and society.

On behalf of the Executive Board, I thank you and all our other shareholders for your ongoing trust and support.

Sincerely,

Belén Garijo

Chair of the Executive Board and CEO

The Executive Board



			_	_
He	lene	von	Roe	der

Member of the Executive Board

Chief Financial Officer

Kai Beckmann

Member of the Executive Board

CEO Electronics

Belén Garijo

Chair of the Executive Board and CEO

Peter Guenter

Member of the Executive Board

CEO Healthcare

Matthias Heinzel

Member of the Executive Board

CEO Life Science

Short biographies

More information can be found at our website.

our shares

At a glance

The stock markets got off to a restrained start in 2023 before finishing strongly, with some indices hitting record levels in December as interest rate concerns eased. There was a significant level of sector divergence with subdued performance in Life Sciences and Pharma. Consequently, our share price performance was dampened during 2023.

The resilience of our multi-industry business model was demonstrated with Healthcare largely offsetting market-driven challenges in Electronics and Life Science. Despite the financial results, our share price declined by around 20% in the course of the year. Our shares underperformed compared with the DAX® index of German blue-chip companies, which rose by around 20% over the year. Our share performance correlated strongly to the share performance of the life sciences industry across the year and tracked the index (-3%) until the December evobrutinib announcement. In comparison, the index for the pharmaceutical industry outperformed our shares, rising by almost 5%. The semiconductor industry index rose by around 65% driven by a handful of chip developers and their products for artificial intelligence applications. Our shares closed at € 144.10 on December 29, 2023 (2022: € 180.90).

The first six months were heavily influenced by uncertainties tied to the continued economic recovery, inflation, rising interest rates and geopolitical tensions. The Covid-19 pandemic business continued to decline, which created a difficult environment in the life science market. Moreover, customers of the Life Science business sector mainly focused on cash preservation as well as working capital optimization, in light of high interest rates. While the semiconductor market is preparing for artificial intelligence fueled growth, it has not yet translated into volume growth for the materials sector. The existing portfolio of Healthcare had a strong year; however, the negative results of the Phase III trials of evobrutinib had a share price impact in December. Taken together, these factors explain why our share price underperformed the DAX® and relevant sector indices in

At approximately 329,000 shares per day, the average daily trading volume of our shares in 2023 was up around 2% on the prior-year figure of around 321,000. This meant our shares bucked the general trend of lower turnover on German securities trading platforms in 2023 compared with the previous year.

Our shareholder structure remained largely stable in 2023 compared with the previous year: Europe continues to account for the largest proportion of the free float at around half, followed by the United States with around 29%. Compared with 2022, the proportion of the value-oriented investors fell slightly in favor of growth oriented investors and GARP (growth at a reasonable price) investors. The top five investors held around 24% of the free float at the end of 2023, up around two percentage points on the previous year.

In 2023, our Executive Board and Investor Relations team held over 1,000 discussions with investors on topics such as strategy, the business model, business performance, corporate governance, and sustainability at our company during investor conferences, roadshows, and conference calls.

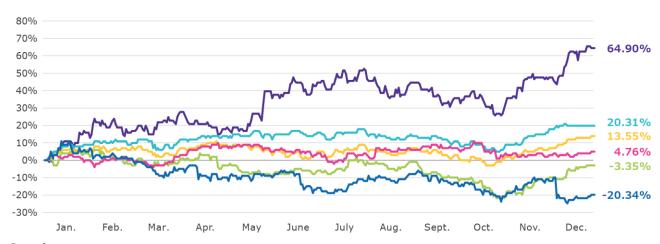
Our shares

Share price development from January 1, 2023, to December 31, 2023, in %

- Merck KGaA, Darmstadt, Germany MSCI European Pharma Index
- PHLX Semiconductor Sector Index

• DAX®

- Dow Jones European Chemical Index
- S&P 500 Life Sciences Tools & Services Index



Our shares

Key share price data¹

		2023	2022
Dividend ²	€	2.20	2.20
Share price high	€	201.10	222.90
Share price low	€	135.45	156.10
Year-end share price	€	144.10	180.90
Daily average number of our shares traded ³	Number	329,074	321,232
Market capitalization ⁴ (at year-end)	€ million	62,651	78,651
Market value of authorized shares ⁵ (at year-end)	€ million	18,624	23,380

¹ Share price-relevant figures relate to the closing price in Xetra® trading on the Frankfurt Stock Exchange.

Our shares

Dividend development since 2014



 $^{^1}$ Adjusted to the new number of shares after the share split (June 30, 2014). * 2023 dividend subject to approval by the Annual General Meeting.

 $^{^{\}rm 2}$ 2023 dividend subject to approval by the Annual General Meeting.

 $^{^3}$ Based on the floor trading systems of all German exchanges and the regulated market on Xetra $^{\circledR}$.

⁴ Based on the theoretical number of shares (434.8 million).

 $^{^{\}rm 5}$ Based on the number of shares in free float (129.2 million). Source: Bloomberg, Thomson Reuters.

Identified investors by region as of November 2023



Source: Nasdaq Shareholder Identification; Total Shares Outstanding: 129.2 million.

Identified investors by type as of November 2023



 $Source: \ Nasdaq \ Shareholder \ Identification.$