Annual Report

2023

Health for all, Hunger for none

Five-Year Summary

€ million	2019	2020	2021	2022	2023
Bayer Group financial KPIs					
Sales	43,545	41,400	44,081	50,739	47,637
EBITDA[1]	9,529	(2,910)	6,409	13,515	10,632
EBITDA before special items[1]	11,474	11,461	11,179	13,513	11,706
EBITDA margin before special items[1]	26.3%	27.7%	25.4%	26.6%	24.6%
EBIT[1]	4,162	(16,169)	3,353	7,012	612
EBIT before special items[1]	6,975	7,095	7,295	9,257	7,589
Net income (from continuing and discontinued operations)	4,091	(10,495)	1,000	4,150	(2,941)
Earnings per share (from continuing and discontinued operations) (€)[1]	4.17	(10.68)	1.02	4.22	(2.99)
Core earnings per share (from continuing operations) (€)[1]	6.38	6.39	6.51	7.94	6.39
Free cash flow	4,214	1,343	1,415	3,111	1,311
Net financial debt	34,068	30,045	33,137	31,809	34,498
Return on capital employed (ROCE) (%)	3.7	–16.5	3.8	7.7	0.7
Research and development expenses	5,301	7,126	5,412	6,572	5,371
Dividend per share (€)	2.80	2.00	2.00	2.40	0.11
Bayer Group nonfinanicial KPIs[2]					
Number of smallholder farmers in low- and middle-income countries supported by products, services and partnerships (million)	42	45	49	52	53
Number of women in low- and middle-income countries who have their need for modern contraception satisfied due to interventions supported by Bayer (million)	38	40	41	44	46
Number of people in underserved[3] communities whose self-care is supported by interventions from Bayer (million)	41	43	46	49	51
Scope 1 and 2 greenhouse gas emissions (million metric tons)	3.76	3.58	3.17	3.03	3.00
Scope 3 greenhouse gas emissions from relevant categories (million metric tons)[4]	8.82	7.93	7.97	8.98	8.44
Offsetting of remaining Scope 1 and 2 greenhouse gas emissions (million metric tons)	0.00	0.20	0.30	0.45	0.60
Employees					
Number of employees[5] (Dec. 31)	103,824	99,538	99,637	101,369	99,723
Personnel expenses (including pension expenses) (€ million)	11,788	9,769	11,798	12,619	10,691

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] For more information see A 1.2.1.
[3] Economically or medically
[4] Values for 2020, 2021 and 2022 were updated due to new findings in category 3.1.
[5] Employees calculated as full-time equivalents (FTEs)

Fiscal 2023

Bayer posts decline in sales and earnings / meets adjusted guidance

- // Group sales: €47.6 billion (Fx & p adj. –1.2%), currency headwinds of around €2 billion
- // EBITDA before special items falls to €11.7 billion (–13.4%)
- // Crop Science records significant decline in sales and earnings against very strong prior year, mainly due to lower glyphosate prices
- // Pharmaceuticals registers stable sales (Fx & p adj.), lower earnings
- // Consumer Health continues positive business performance
- // Core earnings per share at €6.39 (–19.5%)
- // Net income: minus €2.9 billion, weighed down by impairments at Crop Science
- // Free cash flow at €1.3 billion, net financial debt rises to €34.5 billion
- // Proposed dividend of €0.11 per share
- // Outlook for 2024: sales roughly level year on year (Fx & p adj.), currency-adjusted EBITDA before special items and core earnings per share to decline

Contents

To our Stockholders

A / Combined Management Report

B / Consolidated Financial Statements

C / Compensation Report

D / Further Information

Chairman's Letter

Dear Stockholders and
friends of Bayer:

I've been at Bayer since last April. Since then, I've had the opportunity to get to know the people and the products that make up this great company all around the world. I've spoken to our customers, our colleagues in the research labs and the greenhouses, our marketing experts, and the scientists responsible for developing new medicines and agricultural products.

Bayer is home to a wealth of expertise and incredible creative potential. Each encounter I've had has only heightened my enthusiasm for this company and its possibilities. I say that even though we have experienced some difficult setbacks and are facing some material challenges.

Rest assured that we will not allow ourselves to become discouraged. On the contrary: These setbacks drive us to get so much better and to demonstrate the potential that this company holds. We are currently in the process of fundamentally changing the way our company operates – to make Bayer faster and better-performing.

Adjusted guidance reached, but not satisfied with the results

This report contains our 2023 business performance. Although we reached our adjusted guidance, we cannot be satisfied with the results. Our sales of €47.6 billion – adjusted for currency and portfolio effects – were one percent lower than in the prior year. EBITDA before special items fell by some 13 percent to €11.7 billion. And our core earnings per share, at €6.39, were almost 20 percent lower year on year.

Business performance in our three divisions varied widely. While sales and earnings at Crop Science declined significantly compared with the prior year, business performance at Consumer Health continued to be positive. At Pharmaceuticals, sales were level year on year on a currency- and portfolio-adjusted basis, but earnings fell substantially.

Bayer CEO Bill Anderson

With regard to our dividend, we put forward a proposal to pay out only the legally required minimum for the next three years. We didn't take this decision lightly, but one of the company's top priorities is reducing debt and increasing flexibility. This would result in a dividend of €0.11 per share for fiscal year 2023, which we will propose at the Annual Stockholders' Meeting.

On top of our high debt load, we continue to be burdened by litigation in the United States. We have won some lawsuits but lost others, and we have seen some unprecedented damages awards. We have filed appeals against the adverse verdicts and will continue to defend ourselves vigorously. The scientific and regulatory facts are on our side, as was demonstrated again last year, when the safety of glyphosate was confirmed by its reapproval in the European Union. We will make every effort to ensure that the plaintiff attorneys are not allowed to misrepresent these facts in court. After all, we want to invest our resources in innovation, not in the US litigation industry.

We faced another setback in November 2023, when a major Phase III trial investigating our anticoagulant asundexian in patients with atrial fibrillation and the risk of stroke was discontinued. That was a big disappointment for all of us, even though we are well aware that this is always a risk for every pharmaceutical company. It is an unavoidable part of the search for medical breakthroughs. We will continue to investigate asundexian and are proceeding with our trial of this substance in stroke prevention.

We also have other promising candidates in our portfolio and are making good progress with them.

These setbacks have had a very negative impact on our share price. Let's be clear: The current trajectory is unacceptable. That's why we have initiated a radical transformation of our company – and we're committed to regaining trust.

A new operating model to boost performance

Bayer has huge potential. But as in many large companies, we often make life difficult for ourselves. There is a whole lot of coordination, monitoring and supervision going on. In some areas, we have 12 hierarchy levels between the CEO and the customer.

Why is that a problem? Because this traditional approach of top-down management doesn't place products and customers at the heart of daily work. Decisions take far too long. Initiative and creativity are stifled by bureaucracy.

That's why we want to turn our system on its head. In the future, 95 percent of the decision-making will shift to the people actually doing the work. We are introducing a new operating model, which we call Dynamic Shared Ownership. This new system will reduce hierarchy levels, eliminate bureaucracy and significantly accelerate decision-making. We will primarily work in small, self-managed teams, totally focused on improving our products and the lives of our customers. This shift will enable us to unleash the entrepreneurial power of each individual and ensure that all of our efforts are focused on the needs of consumers, patients and farmers.

Already, 4,000 colleagues are involved, and we plan to roll out the system to every part of Bayer. We want to reach each area of the company by the end of 2024.

This change will also lead to a considerable number of job reductions. That is a necessary consequence of reducing hierarchy levels and making the company leaner. We will proceed in a fair and socially responsible manner, as has always been the way at Bayer. In Germany, we have reached an agreement with the employee representatives on the Supervisory Board in the form of a Joint Declaration.

I am well aware that the changes within the company will have a significant impact on our employees. However, these steps are necessary to get Bayer swiftly back on track. And the result will create much more meaningful jobs. The people of Bayer share this view. They are looking forward to holding greater responsibility for their company. And I would like to offer my sincere thanks to our employee representatives and our people worldwide for the excellent results they have achieved during the past year, despite some challenging conditions.

Innovation to drive our mission forward

Last year, Team Bayer once again demonstrated our creativity and innovative power. Here are just a few examples of how we are driving our mission forward.

Our team at Crop Science is launching innovation that will make agriculture both more productive and more environmentally friendly over the coming decades. One such innovation is the Preceon™ Smart Corn System, which makes corn more resilient in extreme weather conditions by reducing its height. We have also launched our new system for direct-seeded rice in India, which can lower greenhouse gas emissions and water consumption by up to 40 percent. This innovation has the potential to revolutionize the production of rice, a staple crop for nearly half the world!

At Pharmaceuticals, we have reached important milestones in our clinical trials in the field of cell and gene therapy for the treatment of Parkinson's disease. In addition, two molecules from our chemoproteomics platform have also reached the clinical testing phase. We hope that these programs will one day enable us to help cancer patients whose needs are currently unmet.

We have also made considerable progress in our late-stage pipeline, where seven of our drug candidates are now moving toward marketing authorization. We have seen very positive results in two studies of our potential blockbuster elinzanetant, which is being developed for the treatment of menopausal symptoms. Furthermore, we have received regulatory approval for Eylea™ 8 mg in both the European Union and Japan, which will put us in a position to sustain market leadership in the treatment of two serious forms of eye disease. And our recently launched products Nubeqa™ for cancer and Kerendia™ for heart and kidney disease are continuing to grow rapidly and in additional countries.

At Consumer Health, we have set up a new Precision Health unit to develop customized digital solutions that help people make better-informed and more individualized self-care decisions. We also had major product launches last year. In China, for example, we strengthened our Elevit™ nutritional supplement brand, and in Europe we entered the attractive probiotics market with an oral product for women's intimate health.

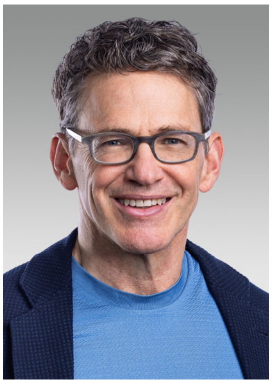
We have also systematically implemented our sustainability strategy over the past year, and we remain on track to achieve our ambitious targets. One of the highlights in 2023 was the landmark agreement that we signed in the United States, which will enable us to secure 40 percent of our global electricity demand out of renewable energy sources in the future. We also presented our new water strategy at the UN Water Conference in New York, which will make water stewardship an integral part of our business and investment decisions. We are one of the first companies in the world to take such a step.

All of these advances in innovation and sustainability show what our company is capable of. And we are still hitting our stride. We will make every effort to realize this potential in full. We remain focused on our vital mission of **Health for all, Hunger for none**, and we will put aside everything that is off-mission. We have set ourselves ambitious targets to make sure that Bayer is a faster, better and more innovative company in the future, for the benefit of our shareholders and everyone else we serve. Thank you for being a part of our journey.

Sincerely,

Bill Anderson
Chairman of the Board of Management (CEO) of Bayer AG

Board of Management



Bill Anderson

Chairman (CEO)

William N. (Bill) Anderson studied Chemical Engineering at the University of Texas and the Massachusetts Institute of Technology (MIT), where he also gained his Master of Science in Management. He started his professional career in specialty chemicals before moving to the biotechnology industry, where he held global leadership positions at various companies including Biogen and Genentech. He joined Roche Pharmaceuticals in 2013 and became its CEO in 2019. He has been a member of Bayer's Board of Management since April 1, 2023, and Chairman of the Board of Management (CEO) since June 1, 2023.

Wolfgang Nickl

Finance

Wolfgang Nickl studied business administration in Stuttgart and Los Angeles. Following numerous roles in Europe and the United States at Western Digital Corporation, Nickl was appointed Chief Financial Officer in 2010. In 2013, he joined Netherlands-based ASML N.V. as Executive Vice President and Chief Financial Officer. Nickl has been a member of the Bayer Board of Management since April 2018.

Heike Prinz

Member of the Board of Management

Heike Prinz studied business administration in Berlin and holds a degree in business administration. She joined the former Schering AG in 1986, which was acquired by Bayer in 2006. From 2009, she held various management positions at Bayer Pharmaceuticals in Singapore, Thailand and Japan. In 2021, she became Head of Commercial Operations EMEA (Europe, Middle East and Africa) at Bayer Pharmaceuticals. In September 2023, Heike Prinz was appointed to the Board of Management of Bayer AG as Chief Talent Officer and Labor Director.

Rodrigo Santos

Crop Science

Rodrigo Santos studied Agricultural Engineering in São Paulo and received his MBA in Ohio. He joined Monsanto in 1999 and recently served as Chief Operating Officer at Bayer's Crop Science Division. During those years he held different positions in sales, marketing, and strategy, among others, leading organizations in Latin America, Europe and the United States. Santos has served as a member of the Bayer Board of Management and head of the Crop Science Division since January 2022.

Stefan Oelrich

Pharmaceuticals

Stefan Oelrich joined Bayer as a commercial trainee. After qualifying as a commercial assistant, he held a number of positions of increasing responsibility in Bayer's HealthCare business. In 2011, Oelrich joined Sanofi, where he held numerous roles before being appointed Executive Vice President Diabetes & Cardiovascular in the company's Executive Committee. Oelrich has served as a member of the Bayer Board of Management and head of the Pharmaceuticals Division since November 2018.

Heiko Schipper

Consumer Health

After completing his studies in business economics in Rotterdam, Heiko Schipper acquired experience at Heineken before joining Nestlé in 1996, where he held various sales and marketing roles in Bangladesh, Indonesia and Switzerland. Schipper took on general management roles with increasing responsibility in the Philippines and Greater China. He was later appointed CEO of Nestlé Nutrition and a member of the Nestlé Group Executive Board. Schipper has been a member of the Bayer Board of Management since March 2018.

Report of the Supervisory Board

Dear Shareholders:

2023 was a challenging year for Bayer. Various external factors such as global crises, wars, high inflation and raw-material prices, and unfavorable exchange rate developments had a negative effect on Bayer's business. From the Supervisory Board's perspective, business performance was not satisfactory. That is why, in addition to the company's strategic alignment, the Supervisory Board also specifically focused on the identified problem areas, such as the continuing glyphosate and PCB litigations in the United States, the company's high leverage ratio, and the further development of the pharmaceutical pipeline. In addition to performing extensive oversight around these issues, the Supervisory Board addressed in particular the reorganization of Bayer's leadership team. In February, it appointed Bill Anderson as a member of the Board of Management effective April 1, and Chairman of the Board of Management (CEO) effective June 1. The Supervisory Board also appointed a new Chief Talent Officer in 2023, making Heike Prinz a member of the Board of Management and Labor Director. In addition, the Supervisory Board engaged in deliberations in relation to its own composition. At the 2024 Annual Stockholders' Meeting, it will propose the reelection of two members with a proven track record, as well as the election of three new members to succeed members who are stepping down.

During 2023, the Supervisory Board monitored the conduct of the company's business by the Board of Management on a regular basis with the aid of detailed written and oral reports received from the Board of Management, and also acted in an advisory capacity. In addition, the Chairman of the Supervisory Board maintained a constant exchange of information with the respective Chairman and the other members of the Board of Management. Furthermore, the Chairman of the Supervisory Board and the Chairman of the Audit Committee were regularly in direct contact – including outside of the meetings – with the heads of the Law, Patents, Insurance, Compliance and Data Privacy unit, Internal Audit, and the Taxes, Treasury and Accounting unit. In addition, the Chairman of the Audit Committee was regularly in direct contact with the head of the Global Compliance and Data Privacy department, including outside of the meetings. In this way, the Supervisory Board was kept continuously informed about the company's intended business strategy, corporate planning (including financial, investment and human resources planning) and earnings performance, as well as the state of the business and the situation in the company and the Group.

Where Board of Management decisions or actions required the approval of the Supervisory Board, whether by law or under the Articles of Incorporation or the rules of procedure, the draft resolutions were inspected by the members at the meetings of the full Supervisory Board, sometimes after preparatory work by the committees, or approved on the basis of documents circulated to the members. The Supervisory Board was involved in decisions of material importance to the company. We discussed at length the business trends described in the reports from the Board of Management and the prospects.

Work of the Supervisory Board

The Supervisory Board convened eight times in 2023. The attendance rate of the individual Supervisory Board members at the meetings of the Supervisory Board and its committees is disclosed at the end of this Report.

The members of the Board of Management generally attended the meetings of the Supervisory Board. However, the Supervisory Board also met regularly without the Board of Management or with only the Chairman of the Board of Management (CEO) present. Each ordinary meeting formally includes an "executive session" as a separate agenda item, during which no Board of Management members are present. Ordinary Audit Committee meetings also include executive sessions that involve the Audit Committee consulting with the auditor without the presence of the Board of Management.

The employee representatives and the stockholder representatives each held preparatory discussions prior to the ordinary meetings of the Supervisory Board.

The deliberations of the Supervisory Board in 2023 primarily related to Bayer's strategy and business performance, along with the composition of the Board of Management. The work of the Supervisory Board primarily covered the following focal points, with each topic discussed at several meetings: Firstly, the composition of the Board of Management, and especially the change in Chairman (CEO). Secondly, Bayer's economic position, the company's strategic alignment and the introduction of a new operating model, Dynamic Shared Ownership. Thirdly, the principal litigations, particularly relating to glyphosate and PCBs, which were extensively addressed by the full Supervisory Board and additionally by the Audit Committee. Fourthly, matters relating to Board of Management compensation and compensation reporting, which were covered in detail by the full Supervisory Board and additionally by the Human Resources and Compensation Committee. Outside of the meetings of the Supervisory Board and the respective committees, these issues were also the subject of in-depth dialogue between the Chairman of the Supervisory Board and the respective Chairman of the Board of Management (CEO), as well as other members of the Board of Management.

Prof. Dr. Norbert Winkeljohann,
Chairman of the Supervisory Board of Bayer AG

At its individual meetings, the Supervisory Board mainly focused on the following topics and passed the following written resolutions:

1. At an extraordinary meeting in February, the Supervisory Board appointed Bill Anderson as a member of the Board of Management effective April 1, 2023, and as Chairman of the Board of Management (CEO) effective June 1, 2023. In addition, the Supervisory Board approved the early departure of Werner Baumann as Chairman of the Board of Management (CEO) effective May 31, 2023, and the conclusion of a termination agreement with him.

2. At another meeting in February, the Supervisory Board discussed the Annual Report for 2022, the Compensation Report, and the Notice of the Annual Stockholders' Meeting 2023. It looked at current capital market developments in relation to Bayer and the regular risk report, and also deliberated on aspects of Board of Management compensation, including in particular target attainment and short-term variable compensation for the Board of Management members for 2022, as well as the targets to be set for 2023.

3. At its ordinary meeting ahead of the Annual Stockholders' Meeting in April, the Supervisory Board discussed the company's business performance to date. Moreover, the Supervisory Board approved the issuance of new bonds and dealt with matters relating to the upcoming Annual Stockholders' Meeting. In addition, the Supervisory Board reelected Prof. Dr. Norbert Winkeljohann as Chairman of the Supervisory Board, subject to his reelection as a Supervisory Board member at the Annual Stockholders' Meeting.

4. By way of a written resolution in May, the Supervisory Board approved the submission of a binding offer for an exclusive license with Bicycle Therapeutics for the development of peptide-based radiation therapies.

5. At its June meeting, the Supervisory Board again dealt with Board of Management matters, including in particular the expiry of Sarena Lin's contract on January 31, 2024, as well as Board of Management compensation. The Supervisory Board again looked at the status of the principal litigations and prepared for its strategy meeting in September.

6. At its extraordinary meeting in August, the Supervisory Board appointed Heike Prinz as a member of the Board of Management and Labor Director effective September 1, 2023. It also approved the early departure of Sarena Lin effective August 31, 2023, and the conclusion of a termination agreement with her. The Supervisory Board approved the issuance of a hybrid bond and again discussed the company's strategic alignment. It also prepared for the strategy meeting in September.

7. In September, the Supervisory Board held meetings on two consecutive days in the Swiss city of Basel, where the Consumer Health Division is headquartered. During these meetings, the Supervisory Board took an extensive look at Bayer's transition to a new operating model, Dynamic Shared Ownership. It focused on the details of the model and the prerequisites for ensuring successful execution, with insights provided by organizational experts and presentations given by executives from other companies that had implemented similar transitions. In addition, the Supervisory Board addressed in detail the strategies of the Group and the three divisions, each as a separate agenda item. It also dealt with the company's financial performance and approved a program involving several financing measures. The Presidial Committee was authorized to approve the individual measures under the program. Other agenda items related to a report on Bayer's business in Switzerland as well as a presentation and discussion of possible structural measures for the Bayer Group. The Supervisory Board also dealt in detail with the status of the various litigations, and especially the glyphosate and PCB litigations. Together with its independent legal advisor, John H. Beisner, it discussed how the status and development of the litigations should be assessed. Outside of the meetings, the Supervisory Board met with some of the managers based at the site.

8. By way of a written resolution passed in October, the Supervisory Board approved the implementation of several financing measures, including the issuance of bonds in 144A/RegS format, as well as the resulting expansion of the company's financing framework.

9. At an information session in November arranged at short notice, the Board of Management provided the Supervisory Board with detailed information on the discontinuation of the OCEANIC-AF Phase III trial investigating asundexian in patients with atrial fibrillation at risk for stroke.

10. At its December meeting, the Supervisory Board discussed the progress made with the introduction of the Dynamic Shared Ownership operating model. The Supervisory Board discussed the provisional operational planning for 2024 and approved the scope of Bayer's external financing. It addressed the public perception of the company and discussed planned communication measures. It examined the options for using artificial intelligence (AI) at Bayer and looked at the results of a self-assessment the Supervisory Board had undertaken with the support of external consultants. The Supervisory Board entrusted the Presidial Committee with the task of drawing up corresponding measures to act on the self-assessment findings. It resolved the regular declaration of compliance with the German Corporate Governance Code and discussed the planned modifications to the Board of Management compensation system, which is to be presented to the 2024 Annual Stockholders' Meeting.

11. By way of a written resolution passed in December, the Supervisory Board approved the operational planning for 2024.

Committees of the Supervisory Board

In 2023, the Supervisory Board had a Presidial Committee, an Audit Committee, a Human Resources and Compensation Committee, a Nomination Committee, an Innovation Committee and an ESG Committee.

The current membership of the committees is shown in the “Further Information” section under “Governance Bodies.”

The meetings and decisions of the committees, and especially the meetings of the Audit Committee, were prepared on the basis of reports and other information provided by the Board of Management. Reports on the committee meetings were presented at the meetings of the full Supervisory Board.

Presidial Committee: This comprises the Chairman and Vice Chairwoman of the Supervisory Board along with a further stockholder representative and a further employee representative. The Presidial Committee serves primarily as the mediation committee pursuant to the German Codetermination Act. It has the task of submitting proposals to the Supervisory Board on the appointment of members of the Board of Management if the necessary two-thirds majority is not achieved in the first vote at a full Supervisory Board meeting. In addition, certain decision-making powers in connection with capital measures, including the power to amend the Articles of Incorporation accordingly, have been delegated to this committee. The Supervisory Board can also delegate certain responsibilities to the Presidial Committee on a case-by-case basis. Furthermore, the Presidial Committee may undertake preparatory work for meetings of the full Supervisory Board.

No meeting of the Presidial Committee had to be convened in 2023. The Supervisory Board entrusted the Presidial Committee with the task of drawing up the conclusions to be made from the findings of the Supervisory Board’s self-assessment.

Audit Committee: The Audit Committee comprises three stockholder representatives and three employee representatives. The Chairman of this committee, Horst Baier, satisfies the statutory requirements concerning expertise in the field of accounting, and Supervisory Board Chairman Prof. Dr. Norbert Winkeljohann, who is also a member of this committee, satisfies the requirements concerning expertise in the field of auditing. Other members of the committee also have expertise in these areas. The Audit Committee meets regularly five times a year.

Its tasks include, in particular, examining the financial reporting and monitoring the financial reporting process, the effectiveness and appropriateness of the internal control system and the risk management system, the effectiveness of the internal audit system, the compliance system and the audit of the financial statements. It also addresses relevant topics in the tax, finance and treasury areas. The Audit Committee prepares the resolutions of the Supervisory Board concerning the financial statements and Management Report of Bayer AG, the proposal for the use of the distributable profit, the consolidated financial statements and the Management Report of the Bayer Group (including the mandatory CSR reporting). Further tasks include holding discussions with the Board of Management on the half-year financial reports and any quarterly reports or quarterly statements to be issued prior to their publication. The committee prepares the auditor selection process and submits a reasoned proposal to the Supervisory Board regarding the appointment of the auditor. It also prepares the agreements with the auditor (dealing in particular with the awarding of the audit contract, the determination of the main areas of focus for the audit and the audit fee agreement) and takes appropriate measures to determine and monitor the auditor’s independence. The Audit Committee regularly assesses the quality of the audit and resolves on the approval of any other contracts awarded to the auditor, paying special attention to any potential implications for the auditor’s independence. The Audit Committee also discusses the assessment of the audit risk, the audit strategy and audit planning, and the audit results with the auditor. Furthermore, the Chairman of the Audit Committee regularly discusses the progress of the audit with the auditor and reports on this topic to the committee.

In addition, the Audit Committee monitors the internal process for assessing whether transactions with related parties are executed in the ordinary course of business and on market terms. It resolves on behalf of the Supervisory Board on the approval of related-party transactions pursuant to Sections 111a to 111c and Section 107 of the Stock Corporation Act where such transactions require Supervisory Board approval and the Supervisory Board has not entrusted the approval decision to any other committee.

The Chairman of the Board of Management (CEO) and the Chief Financial Officer regularly attended the meetings of the Audit Committee. Representatives of the auditor were also present at all the meetings and reported in detail on the audit work and the audit reviews of the half-year report and quarterly statements. Every ordinary meeting includes a part where the committee meets alone with the auditor, i.e. without the Board of Management present.

The Audit Committee discussed developments in the area of corporate compliance and the latest reports from Internal Audit at each of its meetings, where necessary.

The individual Audit Committee meetings also mainly focused on the following topics:

1. At the February meeting, the Audit Committee discussed the financial statements of Bayer AG and the consolidated financial statements of the Bayer Group. It also carefully considered the risk report, which covers the risk early warning system and other aspects, and the report on the internal control system (ICS). In addition, the Audit Committee dealt with the yearly compliance report and the developments in compliance and legal cases. Other topics included the yearly report by Internal Audit and a report on the procedure for recording related-party transactions.

2. The May meeting focused on the quarterly statement for the first quarter. The Audit Committee also dealt with the quality of the audit of the financial statements and the main areas of focus for the audit of the annual financial statements.

3. At its August meeting, the Audit Committee mainly dealt with the half-year report. The committee also discussed the effectiveness and further development of the risk management system and the internal control system for financial reporting.

4. At an extraordinary meeting in October, which was attended by all committee members as well as most of the other Supervisory Board members as guests, the committee discussed the assessment of possible measures to change the Group’s structure. In preparation, two separate teams were formed to assess possible measures from different perspectives, with consultants brought in for each team.

5. At its November meeting, the Audit Committee extensively discussed the quarterly statement for the third quarter. Other topics included the provisional audit planning of Internal Audit, as well as the audit budget of the auditor for 2024. Finally, the meeting also dealt with developments relating to ESG reporting, the nonfinancial statement and the EU taxonomy.

6. At its December meeting, the Audit Committee addressed capital market developments in relation to Bayer, the annual reports of the Treasury and Tax functions, deliberations concerning the further development of the structure of the Group’s holdings, and Internal Audit’s audit planning. Other topics of discussion included the future development of the Enterprise Risk Management function, the Audit Committee’s annual planning for 2024, as well as data and cyber security.

Human Resources and Compensation Committee: The Human Resources and Compensation Committee has six members, with parity of representation between stockholders and employees. The Human Resources and Compensation Committee prepares the personnel decisions of the full Supervisory Board, which resolves on appointments or dismissals of members of the Board of Management, and monitors the development of Board of Management compensation on an ongoing basis. The committee resolves on behalf of the Supervisory Board on the service contracts of the members of the Board of Management. However, it is the task of the full Supervisory Board to resolve on the total compensation of the individual members of the Board of Management, the respective compensation components and the compensation system, as well as to regularly review the compensation system on the basis of recommendations submitted by the Human Resources and Compensation Committee. The Human Resources and Compensation Committee also discusses the long-term succession planning for the Board of Management.

The respective Chairman of the Board of Management (CEO) regularly attended the meetings of the Human Resources and Compensation Committee where the matters discussed did not relate to him personally.

The Human Resources and Compensation Committee convened for six meetings. The appointment of a new Chairman of the Board of Management (CEO) and a new Chief Talent Officer (Labor Director) was the subject of multiple discussions. Moreover, the Human Resources and Compensation Committee engaged in extensive deliberations over several meetings about modifications to the Board of Management compensation system and the target-setting and performance-evaluation process. Finally, the committee prepared the Supervisory Board resolutions on the performance evaluations for fiscal year 2022, the targets for fiscal year 2023 and a base compensation review for individual Board of Management members.

Nomination Committee: This committee carries out preparatory work when an election of stockholder representatives to the Supervisory Board is to be held. It suggests suitable candidates for the Supervisory Board to propose to the Annual Stockholders' Meeting for election. The committee comprises the Chairman of the Supervisory Board, who serves as its chairman, and three further stockholder representatives.

The Nomination Committee convened twice in 2023. At a meeting in February, it resolved to recommend to the Supervisory Board that Prof. Dr. Norbert Winkeljohann and Kimberly Mathisen be proposed for reelection to the Supervisory Board. Prof. Dr. Norbert Winkeljohann did not participate in the voting on the resolution concerning his reelection. At a meeting held in December, the committee discussed possible candidates for election to the Supervisory Board by the 2024 Annual Stockholders' Meeting.

Innovation Committee: The Innovation Committee is primarily concerned with the innovation strategy and innovation management, the strategy for the protection of intellectual property, and major research and development programs at Bayer. Within its area of responsibility, the committee advises and oversees the management and prepares any Supervisory Board decisions to be made. The committee comprises the Chairman of the Supervisory Board and seven other members of the Supervisory Board, with parity of representation between stockholder and employee representatives. The meetings of the Innovation Committee are regularly attended by the Chairman of the Board of Management (CEO), as well as by other members of the Board of Management depending on the topics for discussion.

The Innovation Committee convened three times in 2023.

1. At its February meeting, it dealt with strategy, technology platforms, leadership and selected pipeline assets of the acquired pharmaceutical companies BlueRock, AskBio and Vividion.

2. At its June meeting, the Innovation Committee discussed the digital transformation, focusing mainly on AI and large language models and their potential for Bayer.

3. At its December meeting, the committee took an extensive look at Crop Science's research and development activities in the area of seeds and traits.

ESG Committee: The ESG Committee consists of the Chairman of the Supervisory Board and seven other members, with parity of representation between stockholders and employees. It deals with sustainable corporate governance and the company's business activities in the areas of environmental protection, social issues and corporate governance (ESG). This mainly pertains to the way sustainability is incorporated into the business strategy; the establishment of sustainability targets; nonmandatory ESG reporting and the auditing thereof, if applicable; opportunities and risks; and organizational structures and processes in ESG areas, provided the Audit Committee is not already responsible for these matters. Within its area of responsibility, the committee advises and oversees management and prepares any Supervisory Board decisions to be made.

The ESG Committee convened twice in 2023.

1. At its meeting in February, the committee discussed Bayer's sustainability performance in 2022, the Sustainability Report, ESG ratings and developments in the Bayer Sustainability Council. Other key topics included the ESG priorities for 2023, human rights and changes to sustainability reporting at the EU and global level.

2. At its August meeting, the committee discussed a mid-year status update on ESG target attainment, as well as changes to ESG regulations at the European and global level. Another key topic was ESG aspects relating to water.

In May, the Supervisory Board conducted a training session focused on digitalization and its impact on Bayer. The session formed part of a series and built on an initial training event held in the previous year.

Corporate governance

The Supervisory Board considered the principles of corporate governance at Bayer. In particular, at its December meeting, it dealt with the declaration of compliance with the German Corporate Governance Code. During Supervisory Board meetings, the Chairman of the Supervisory Board also summarized the dialogue he had engaged in with investors during investor discussions in January, February and April, as well as during a number of individual conversations. The topics included Board of Management compensation, the composition of the Supervisory Board and other governance-related matters.

Disclosure of meeting participation on an individual basis

The members’ attendance rate in the meetings of the full Supervisory Board and the committees was 97%.

To facilitate modern, more sustainable meeting formats, the Supervisory Board and its committees only conduct some of their meetings in person. Individual participants were sometimes allowed to attend in-person meetings virtually. The other meetings were held virtually as video conference calls. None of the meetings took place as a telephone conference call. Of the eight meetings held by the Supervisory Board, six were conducted in person and the others were held virtually. Of the 19 committee meetings in total, 10 were held in person and the others were conducted virtually.

The participation of the individual Supervisory Board members in the meetings of the Supervisory Board and its committees is shown below:

	Supervisory Board (8, of which 6 held in person)		**Audit Committee** (6, of which 4 held in person)		**Human Resources and Compensation Committee** (6, of which 3 held in person)		**Innovation Committee** (3, of which 2 held in person)		**ESG Committee** (2, of which 1 held in person)		**Nomination Committee** (2, of which 0 held in person)	
Number of meetings/participation rate (%)	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Prof. Dr. Norbert Winkeljohann Chairman	8/8	100%	6/6	100%	6/6	100%	3/3	100%	2/2	100%	2/2	100%
Heike Hausfeld Vice Chairwoman	8/8	100%	6/6	100%	6/6	100%	3/3	100%	2/2	100%		
Dr. Paul Achleitner	8/8	100%							2/2	100%		
Dr. Simone Bagel-Trah	8/8	100%			6/6	100%					2/2	100%
Horst Baier	8/8	100%	6/6	100%	6/6	100%						
Dr. Norbert W. Bischofberger	8/8	100%					3/3	100%				
André van Broich	8/8	100%			6/6	100%	3/3	100%	2/2	100%		
Ertharin Cousin	8/8	100%					3/3	100%	2/2	100%		
Yasmin Fahimi	6/8	75%							2/2	100%		
Dr. Barbara Gansewendt	8/8	100%	6/6	100%								
Colleen A. Goggins	7/8	88%							1/2	50%	2/2	100%
Francesco Grioli	8/8	100%										
Frank Löllgen	5/8	63%	6/6	100%			3/3	100%				
Kimberly Mathisen	6/8	75%										
Andrea Sacher	8/8	100%			6/6	100%	3/3	100%				
Claudia Schade	8/8	100%										
Heinz Georg Webers	8/8	100%							2/2	100%		
Alberto Weisser	8/8	100%	6/6	100%							2/2	100%
Michael Westmeier	8/8	100%										
Prof. Dr. Otmar D. Wiestler	8/8	100%					3/3	100%				

Financial statements and audits

The financial statements of Bayer AG were prepared according to the requirements of the German Commercial Code and Stock Corporation Act. The consolidated financial statements of the Bayer Group were prepared according to the International Financial Reporting Standards (IFRS) as endorsed by the European Union. The applicable further requirements of Section 315a of the German Commercial Code were also taken into account. The Combined Management Report was prepared according to the German Commercial Code.

The auditor, Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Munich, has audited the financial statements of Bayer AG, the consolidated financial statements of the Bayer Group and the Combined Management Report. The auditor responsible for the audit was Michael Mehren. The conduct of the audit is explained in the auditor’s reports. The auditor finds that Bayer has complied, as appropriate, with the German Commercial Code, the German Stock Corporation Act and/or the International Financial Reporting Standards endorsed by the European Union, and issues an unqualified opinion on the financial statements of Bayer AG, the consolidated financial statements of the Bayer Group and the Combined Management Report. The financial statements of Bayer AG, the consolidated financial statements of the Bayer Group, the Combined Management Report and the audit reports were submitted to all members of the Supervisory Board. They were discussed in detail by the Audit Committee and at a meeting of the full Supervisory Board. The auditor submitted a report on both occasions and was present during the discussions.

We examined the financial statements of Bayer AG, the proposal by the Board of Management for the use of the distributable profit, the consolidated financial statements of the Bayer Group and the Combined Management Report. While examining the Combined Management Report, we also examined in particular the nonfinancial statement, which is fully integrated into the Management Report and was also examined by the auditor. We have no objections, and thus we concur with the result of the audit.

We have approved the financial statements of Bayer AG and the consolidated financial statements of the Bayer Group prepared by the Board of Management. The financial statements of Bayer AG are thus confirmed. We are in agreement with the Combined Management Report and, in particular, with the assessment of the future development of the enterprise. We also concur with the dividend policy and the decisions concerning earnings retention by the company. We assent to the proposal by the Board of Management for the use of the distributable profit, which provides for payment of a dividend of €0.11 per share and the allocation of the remaining amount to other retained earnings.

The Supervisory Board would like to thank the Board of Management and all employees for their dedication and hard work in 2023.

Leverkusen, February 29, 2024

For the Supervisory Board

Norbert Winkeljohann

Prof. Dr. Norbert Winkeljohann
Chairman

Investor Information

Difficult year on the stock market for Bayer AG and our stockholders

2023 was a difficult year on the stock market for our company and our stockholders as a number of factors weighed down the Bayer share price. The guidance downgrade for full-year 2023 in July, the discontinuation of an important Phase III trial involving our investigational drug asundexian, and further uncertainties around the litigations were among the major headwinds. Additional factors included challenging market dynamics for Crop Science, ongoing price declines in key pharmaceutical markets, the rise in inflation and unfavorable exchange rate developments.

Following the change at the helm of the company in the middle of the year, our new CEO Bill Anderson announced plans to work together with the entire workforce to accelerate innovation, improve performance and leverage the company's full potential moving forward.

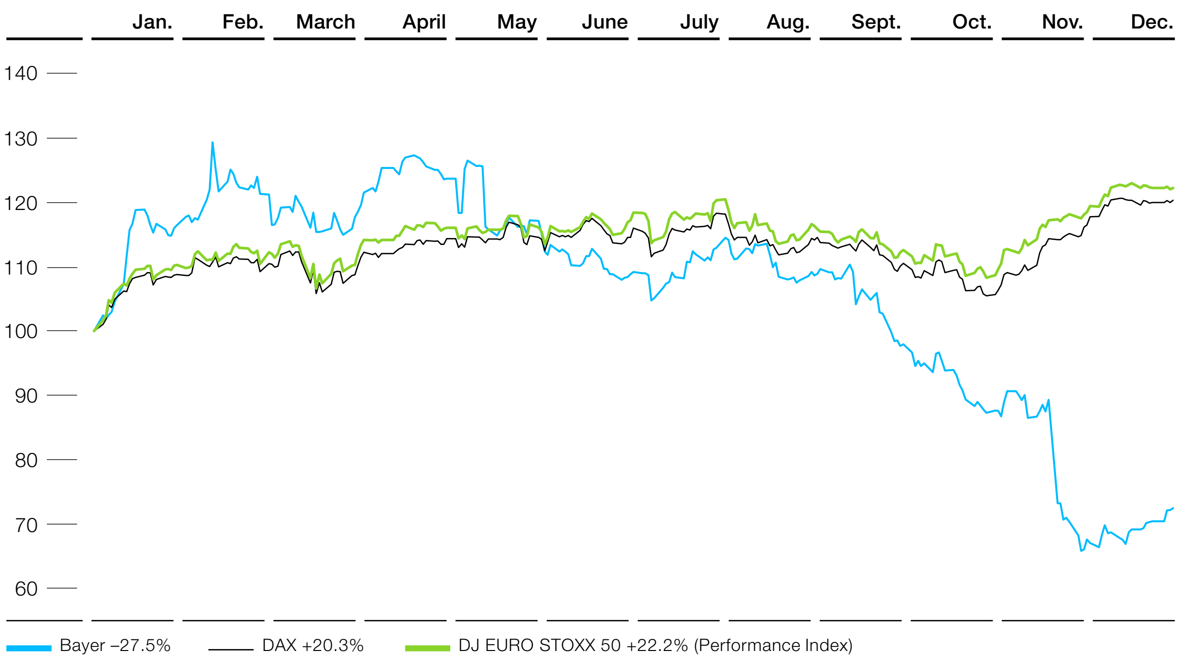
Despite stabilizing toward the end of the year, Bayer stock closed the year down 27.5% against 2022, at €33.63 per share. The German stock index (DAX 40) was up 20.3% over the same period, while the EURO STOXX 50 rose by 22.2%. Bayer AG's market capitalization fell by €14.5 billion to €33 billion.

These developments were reflected in the reports by sell-side analysts, who adjusted their models and share price targets accordingly. The average target price was €48.95 (as of the end of December 2023) compared to €77.30 a year earlier. Of the 22 analyst recommendations at the end of the year, eight were positive, thirteen were neutral and one was negative.

1

Performance of Bayer Stock in 2023

Indexed; 100 = Xetra closing price on December 31, 2022



2

Bayer Stock Data

		2022	2023
Earnings per share from continuing and discontinued operations	€	4.22	(2.99)
Core earnings per share from continuing operations[1]	€	7.94	6.39
Free cash flow per share	€	3.17	1.33
Equity per share	€	39.62	33.67
Dividend per share	€	2.40	0.11
Year-end price[2]	€	48.33	33.63
High for the year[2]	€	67.73	62.49
Low for the year[2]	€	47.68	30.56
Total dividend payment	€ million	2,358	108
Number of shares entitled to the dividend (Dec. 31)	million shares	982.42	982.42
Market capitalization (Dec. 31)	€ billion	47.5	33.0
Average daily share turnover on German stock exchanges	million shares	3.4	3.0
Price/EPS[2]		11.5	(11.2)
Price/core EPS[2]		6.1	5.3
Price/free cash flow[2]		15.2	25.3
Dividend yield[2]	%	5.0	0.3

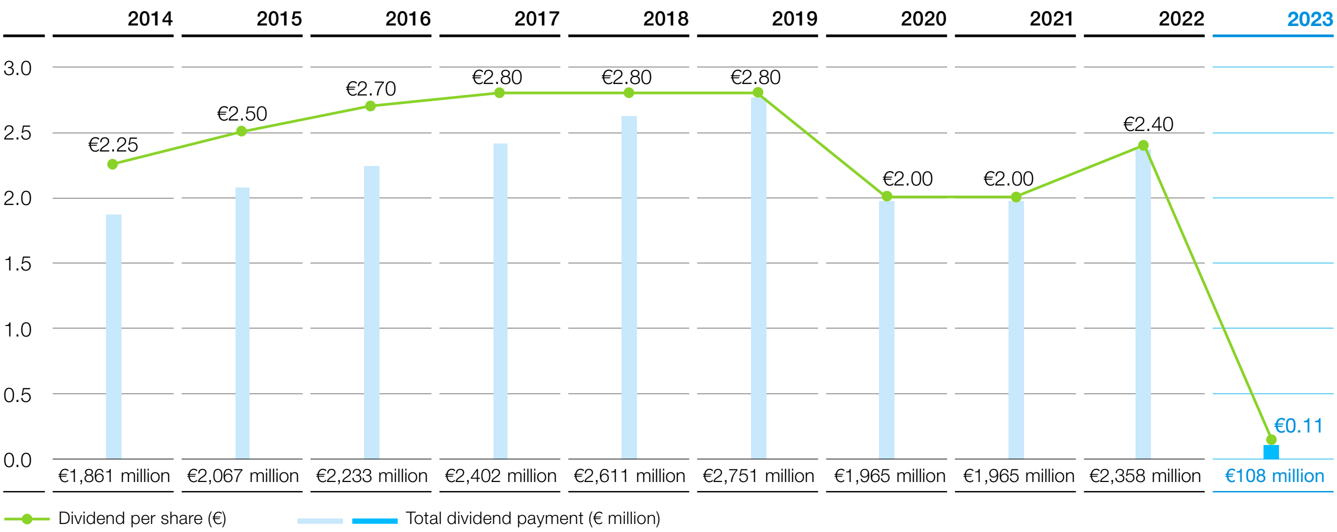
[1] For details on the calculation of core earnings per share, see Combined Management Report, A 2.3.
[2] XETRA closing prices (source: Bloomberg)

Dividend policy to be amended in order to reduce debt

Bayer AG plans to amend its dividend policy to pay out the legally required minimum for three years. The Board of Management and Supervisory Board will therefore propose a dividend of €0.11 per share for 2023 (2022: €2.40). The dividend proposal will help the company to reduce debt and, in turn, interest expense and improve its free cash flow situation. The dividend corresponds to 1.7% of 2023 core EPS (2022: 30%). Based on the Bayer share price at the end of 2023, the dividend yield is 0.3% (2022: 5.0%).

3

Dividends Per Share and Total Dividend Payment



Bayer stock included in important indices

Bayer stock is listed on the DAX and numerous other key European indices, including the EURO STOXX 50, the FTSE Euro 100 and the S&P Europe 350. At the end of the year, Bayer was ranked 13th in the DAX 40 according to market capitalization. Bayer stock is also included in the sustainability indices FTSE4Good and MSCI ACWI Low Carbon Target Index.

International ownership structure

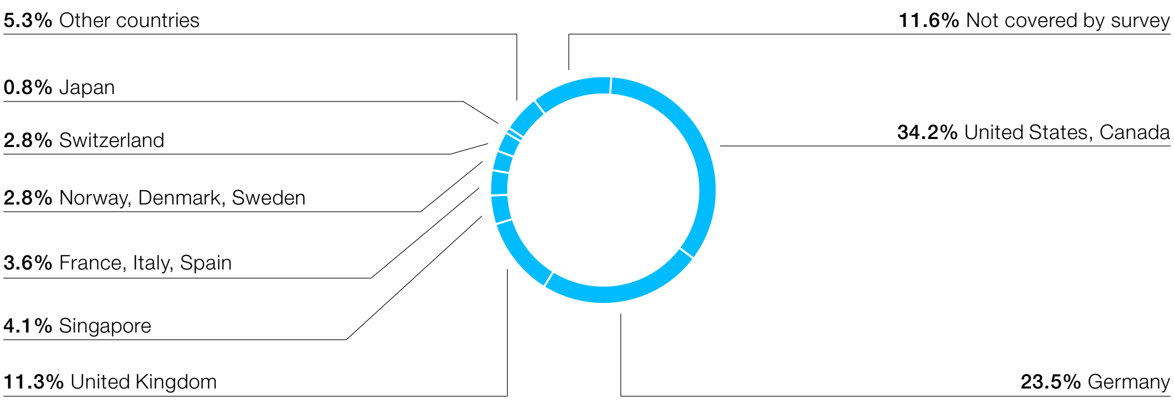
Our company's global footprint is also reflected in our international ownership structure. The biggest share of our capital stock, at 34.2%, is held by investors in North America. This represents a decline of 1.3 percentage points compared with the previous year. German-based stockholders remain a key group of investors, holding 23.5% of Bayer stock, while shareholders in the United Kingdom account for 11.3%. Irrespective of geographic distribution, some 18% of our shares are held by private stockholders.

According to our share register, we had approximately 638,000 stockholders at the end of 2023.

Bayer has a 100% free float as defined by Deutsche Börse, the operator of the Frankfurt Stock Exchange.

4

Shareholder Composition – Regional Allocation



Source: CMi2i

Maintaining intensive investor relations activities

In 2023, our investor relations activities again focused on making sure capital market participants were kept continuously up to date on the latest developments at our company, the progress of our innovations and the business performance of our three divisions.

Bayer management and the Investor Relations team continued to maintain their intensive dialogue with analysts and investors in 2023. As usual, this included numerous investor conferences and roadshows. Our capital-market communications largely centered around the change in CEO and the resulting effects on our company strategy, as well as updates on our latest innovations. This continuous dialogue with analysts and investors is an important way for us to receive their input and feedback. In total, Investor Relations participated in more than 500 engagements in 2023, both in person and in virtual settings.

In June, we held a Crop Science Innovation Summit in New York and a Pharmaceuticals R&D Day in Boston. During these events, we provided strategy updates on our research and development activities and shared insights into our innovation progress and ambitions.

We also held our 2023 Annual Stockholders' Meeting in a virtual setting based on the new legislation, with stockholders essentially afforded the same rights as during an in-person Annual Stockholders' Meeting. This new format enabled direct dialogue with stockholders during the event via video communication. In particular, shareholders had the right to submit motions and election proposals during the virtual Annual Stockholders' Meeting, as well as to speak. In addition, shareholders had the right to ask questions and obtain feedback during the event. Prior to the Annual Stockholders' Meeting, stockholders were also able to submit written statements via the Stockholders' Portal.

Based on our positive experience last year, we will hold our 2024 Annual Stockholders' Meeting in a virtual setting, too. Stockholders will have the same rights as they had at last year's event.

Sustainability: intensive dialogue with investors and ESG rating agencies

We again engaged in numerous conversations with investors regarding sustainability issues in 2023, with climate protection, biodiversity, access to medicine and the environmental impact of our products among the focal topics once more.

In addition to bilateral investor conversations, conferences and roadshows, we also hosted two webinars during which we provided information on current topics. Here, we feel it is important to bring in experts from the divisions and central functions as this helps give capital market participants a deeper understanding of the various topics while also providing a direct channel for investors to communicate their needs to the company.

With respect to the ESG ratings, our biggest accomplishment was being upgraded to "Prime" by ISS ESG. Overall, we have a good performance rating profile that reflects our ongoing transparency efforts. However, we continue to see room for improvement as regards certain ESG ratings on controversial issues, with occasional unfavorable ratings for topics such as glyphosate and GMOs.

Success on the bond markets for Bayer – total issue volume exceeding €10 billion

Central banks continued to maintain their restrictive monetary policy in 2023 as inflation rates remained high. The deposit facility rate of the European Central Bank rose from 2% to 4% over the course of the year, while the Federal Reserve hiked the US federal funds rate by a further 100 basis points to a range of 5.25% to 5.50%. As a result, long-term interest rates also remained at a high level, and in some cases even continued to rise.

Furthermore, uncertainty among market participants declined significantly compared with 2022. The predicted natural gas shortages in Europe had a much less significant impact on European economic output than initially assumed. The most important economic data in Europe and the United States was encouraging throughout the year despite high interest rates, and there were also some particularly promising signals from the unemployment figures. Although Russia continued its war in Ukraine, the conflict did not escalate to a global level as had been feared. All of these factors led to a tightening of credit spreads in 2023, and only the insolvency of two smaller US banks and Credit Suisse in spring 2023 caused a brief opposing effect.

The interest rate environment in combination with rebounding confidence among market participants resulted in a productive 2023 on the bond markets. After plummeting in 2022, absolute issue volumes for corporate bonds returned to 2021 levels. Bayer was among the companies looking to capitalize on the positive market environment, and in 2023 placed three separate bonds with a total volume in excess of €10 billion.

A €3 billion bond was placed on the euro market in May 2023, split into three tranches with maturities of 3.25, 6.25 and 10 years. Before issuing the bond, we held a roadshow that attracted a great deal of interest among investors, ultimately resulting in a heavily oversubscribed order book.

A new hybrid bond with a volume of €1.75 billion was issued in September 2023, split into two tranches with noncall periods of 5.25 years and 8.25 years. The objective of the issuance was to facilitate the early partial refinancing of the €1.5 billion hybrid bond with an optional call date in 2024 and the €1 billion hybrid bond with an optional call date in 2025. In parallel with the new issuance, we offered existing investors the option of early redemption for these two hybrid bonds. The tender offer was accepted by investors representing approximately €1.4 billion of the nominal volume, enabling us to significantly lower our refinancing costs.

In November 2023, we issued a US$5.75 billion bond on the US market. The volume was split over five tranches with maturities of three, just over five, seven, ten and thirty years. As Bayer had not been present on the US market since 2018, we held a two-day virtual roadshow ahead of the issuance that attracted a huge amount of interest among investors in that country. The company plans to mainly use the proceeds to repay financial liabilities due in 2024.

Furthermore, bonds with a total volume of US$3.5 billion and €500 million were redeemed over the course of the year.

About this Report

This integrated Annual Report combines our financial reporting and material sustainability information. Our aim is to elucidate the interactions between financial, ecological and societal factors and underline their influence on our company’s long-term success. All information required by commercial law is combined and referenced in our nonfinancial statement. In addition to the Annual Report, we publish a separate Sustainability Report with additional detailed nonfinancial information to meet the informational needs of all stakeholders to the greatest possible extent.

Legal principles and reporting standards

The consolidated financial statements of the Bayer Group as of December 31, 2023, comply with the International Financial Reporting Standards (IFRS), as adopted by the EU, valid at the closing date and with the provisions of the German Commercial Code in conjunction with German financial reporting standards (DRS). With due regard to these provisions, the Combined Management Report provides an accurate overview of the financial position and results of operations of the Bayer Group. The Corporate Governance Report also conforms with the German Stock Corporation Act and the recommendations of the German Corporate Governance Code.

The nonfinancial statement (Sections 289b et seq. and 315b et seq. of the German Commercial Code) is integrated into the Combined Management Report and covers data for the Bayer Group and Bayer AG as the parent company. As a framework for this, we apply the GRI Standards (Section 289d of the German Commercial Code). We also use, for example, the international recommendations and guidelines of the OECD and ISO 26000 as a guide for defining and selecting nonfinancial indicators and in our reporting. When selecting and measuring our key data, we take into account the recommendations of the Greenhouse Gas Protocol with respect to greenhouse gas emissions and those of the European Federation of Financial Analysts Societies, the World Business Council for Sustainable Development and the European Chemical Industry Council with respect to other nonfinancial indicators. The legality, accuracy and expediency of the nonfinancial statement have been verified by the Supervisory Board.

The Annual Report is available online as a PDF. Furthermore, contents subject to the statutory disclosure requirement are published in the Federal Gazette under consideration of the specifications of the European Single Electronic Format (ESEF) Regulation.

Data collection and reporting thresholds

In accordance with IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations), financial indicators are given for continuing operations unless otherwise explicitly indicated. The same logic applies principally to HR, procurement and HSE (health, safety and environment) information and to our social data.

Reporting of the Group’s HSE data includes all fully consolidated companies in which we hold at least a 50% interest. Data on occupational injuries is collected at all sites worldwide. Environmental indicators are measured at all environmentally relevant production, research and administration sites.

External verification

The auditing company Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Munich, Germany, has audited the consolidated financial statements of Bayer AG, Leverkusen, and the Combined Management Report for the fiscal year from January 1, 2023, to December 31, 2023, and has issued an unqualified opinion. The audit, which is conducted to obtain reasonable assurance, also includes the disclosures pertaining to the nonfinancial statement in the Management Report. Exempted from this are Table A 1.2.1/1 and the subsequent passages pertaining to the nonfinancial Group targets in Chapter 1.2.1, Tables A 1.8/2 to A 1.8/7 and the text on the EU taxonomy in Chapter 1.8, which were reviewed on a limited assurance basis in 2023. Our information on Scope 3 emissions was also subject to a limited assurance review. In addition, our Opportunity and Risk Report contains certain disclosures concerning the description of the risk management system and the internal control system pursuant to Section 91, Paragraph 3 of the German Stock Corporation Act that do not normally form part of the Management Report.

The Compensation Report was subject to a reasonable assurance review and appears in a separate chapter outside of the Management Report. The declaration of compliance with the German Corporate Governance Code has not been audited by the auditor.

Additional information

As the indicators in this report are stated in accordance with commercial rounding principles, totals and percentages may not always be exact.

Since inclusion and diversity form an integral part of our corporate culture, we have employed gender-neutral language throughout this Annual Report where possible while maintaining legibility, clarity and accuracy.

A Combined Management Report

of the Bayer Group and Bayer AG as of December 31, 2023

1. Fundamental Information About the Group

1.1 Corporate Profile and Structure

Our mission: Health for all, Hunger for none

Innovation, growth and sustainability are integral elements of our strategy

1.1.1 Corporate Profile

We are a life science company and a global leader in health and nutrition. Our innovative products support efforts to overcome the major challenges presented by a growing and aging global population. Our work helps prevent, alleviate and treat diseases, empowers people to take better care of their own health needs, and also plays a part in ensuring that enough agricultural products are produced while respecting our planet's natural resources. Our activities are systematically guided by our mission: "Health for all, Hunger for none."

We aim to enhance our company's earning power and create value for patients, farmers, consumers, shareholders, employees and society. Innovation, growth and sustainability are integral parts of our strategy.

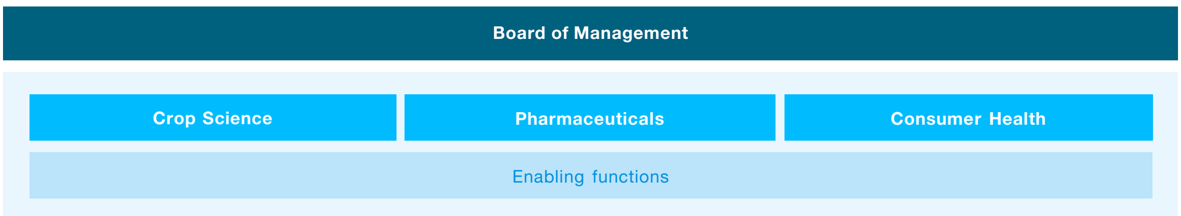
1.1.2 Corporate Structure

Corporate structure as of December 31, 2023

As the parent company of the Bayer Group, Bayer AG – represented by its Board of Management – performs the principal management functions for the entire enterprise. This mainly comprises the Group's strategic alignment, resource allocation and the management of financial affairs and managerial staff, along with the management of the Group-wide operational business of the Crop Science, Pharmaceuticals and Consumer Health divisions. The enabling functions support the operational business.

A 1.1.2/1

Bayer Group Structure in 2023



The following changes have occurred within our organization:

The Supervisory Board of Bayer AG appointed Bill Anderson as Chairman of the Board of Management (CEO) of Bayer effective June 1, 2023. He joined Bayer as a member of the Board of Management on April 1, 2023. Werner Baumann and the Supervisory Board had previously agreed that Baumann's contract as a member and Chairman of the Board of Management (CEO), which was set to run until April 30, 2024, should be terminated prematurely. Baumann's service contract and term of office came to an end by mutual consent on May 31, 2023.

In addition, the Supervisory Board of Bayer AG unanimously appointed Heike Prinz to the Board of Management effective September 1, 2023, with her taking on the role of Chief Talent Officer and Labor Director. This followed the mutual agreement by Sarena Lin and the Supervisory Board to not extend Lin's contract. Sarena Lin left the company effective August 31, 2023.

Our divisions are active in the following areas:

Crop Science is the world's leading agriculture enterprise by sales, with businesses in crop protection, seeds and traits. We offer a broad portfolio of high-value seeds, improved plant traits, innovative chemical and biological crop protection products, digital solutions and extensive customer service for sustainable agriculture. We market these products primarily via wholesalers and retailers or directly to farmers. Most of our crop protection products are manufactured at the division's own production sites. Numerous decentralized formulation and filling sites enable the company to respond quickly to the needs of local markets. The breeding, propagation, production and/or processing of seeds, including seed dressing, take place at locations close to our customers, either at our own facilities or under contract.

Pharmaceuticals concentrates on prescription products, especially for cardiology and women's healthcare, and on specialty therapeutics focused on the areas of oncology, hematology, ophthalmology and, in the medium term, cell and gene therapy. In the area of cell and gene therapy, we operate a strategic unit spanning the entire value creation chain from research and development to marketing and patients. The division also comprises the radiology business, which markets diagnostic imaging equipment and digital solutions together with the necessary contrast agents. Our portfolio includes a range of key products that are among the world's leading pharmaceuticals for their indications by sales, for example in the areas of cardiology, women's healthcare, ophthalmology and radiology. The prescription products of our Pharmaceuticals Division are primarily distributed through wholesalers, pharmacies and hospitals.

Consumer Health is a world-leading supplier of nonprescription (OTC = over-the-counter) medicines for self-medication and self-care in terms of sales. Our portfolio comprises the categories nutritional supplements, allergy, cough & cold, dermatology, pain and cardiovascular risk prevention, and digestive health. The products are generally sold by pharmacies and pharmacy chains, supermarkets, online retailers and other large and small retailers.

The **enabling functions**, such as Group Finance, Human Resources and Information Technology, serve as Group-wide competence centers and bundle business support processes and services for the divisions. Our Leaps by Bayer unit, which invests in disruptive innovations, also forms part of the enabling functions.

More information on the divisions' products and activities is contained in the following table:

A 1.1.2/2

Products and Activities of the Divisions

Indication/application/business	Core activities and markets	Main products and brands[1]
Crop Science		
Herbicides	Chemical crop protection products to control weeds	Adengo™, Alion™, Atlantis™, Conviso™, Harness™, Laudis™, Roundup™, Sakura™, XtendiMax™
Corn Seed & Traits	Seeds and traits for corn	Dekalb™, RIB Complete™, SmartStax™, Vitala™, VT Double™ PRO, VT Triple™ PRO, VTPRO4™
Soybean Seed & Traits	Seeds and traits for soybeans	Asgrow™, Intacta RR2PRO™, Intacta 2 Xtend™, Monsoy™, Roundup Ready 2 Xtend™, XtendFlex™
Fungicides	Biological and chemical products to protect crop plants against fungal diseases	Ambition™, Antracol™, Delaro Complete™, Fox™, Infinito™, Luna™, Nativo™, Prosaro™, Serenade™, Xivana™, Xpro™
Insecticides	Biological and chemical products to protect crop plants from harmful insects and their larvae	Confidor™, Curbix™, Flipper™, Movento™, Sivanto™, Vayego™, Velum/Verango™, Vynyty Citrus™
Cotton	Seeds and traits for cotton	Bollgard™ 3 XtendFlex™, Deltapine™, Thryvon™
Vegetable Seeds	Vegetable seeds	DeRuiter™, Seminis™
Digital Agriculture	Digital applications for agriculture	Climate FieldView™, ForGround™
Other	Seeds and traits for oilseed rape/canola, rice, wheat and other crops. Products for consumer lawn and garden use and forestry, golf courses, railway tracks and landscape applications. Biological and chemical seed treatment products to protect against fungal diseases and pests	Arize™, Dekalb™, Gaucho™, Roundup™, TruFlex™
Pharmaceuticals		
Cardiology	Hypertension, pulmonary hypertension, heart attack and stroke, thrombosis, coronary artery disease (CAD), peripheral artery disease (PAD), symptomatic chronic heart failure, chronic kidney disease and type 2 diabetes	Xarelto™, Adalat™, Aspirin™ Cardio, Adempas™, Verquvo™, Kerendia™
Oncology	Liver cancer, renal cell carcinoma, thyroid carcinoma, prostate cancer, colorectal cancer, gastrointestinal stromal tumors (GIST), follicular lymphoma, solid tumors with NTRK gene fusions	Nexavar™, Nubeqa™, Xofigo™, Stivarga™, Aliqopa™, Vitrakvi™
Ophthalmology	Visual impairment due to age-related macular degeneration (AMD), diabetic macular edema (DME) or retinal vein occlusion (RVO)	Eylea™
Hematology	Hemophilia A	Kogenate™/Kovaltry™/Jivi™
Women's health	Contraception, gynecological therapy	Mirena™ product family, Yaz™ product family, Visanne™
Infectious diseases	Bacterial infections	Avalox™/Avelox™, Cipro™, Ciprobay™
Radiology	Contrast agents; diagnostic imaging equipment for use with contrast agents	Gadovist™, Ultravist™, Medrad Spectris Solaris™, Medrad Stellant™
Neurology	Multiple sclerosis	Betaferon™/Betaseron™
Consumer Health		
Dermatology	Wound care, skin care, skin and intimate health	Bepanthen™, Canesten™
Nutritionals	Multivitamin products, dietary supplements	One A Day™, Elevit™, Berocca™, Supradyn™, Redoxon™
Pain and Cardio	General pain relief and cardiovascular risk prevention	Aspirin™, Aleve™
Digestive Health	Digestive health complaints	Alka-Seltzer™, MiraLAX™, Rennie™, Iberogast™
Allergy, Cough & Cold	Allergies, cough and cold	Claritin™, Aspirin™, Alka-Seltzer™, Afrin™

[1] The order of the products listed is no indication of their importance.

Our company has a global footprint. As of December 31, 2023, the Bayer Group comprised 340 consolidated companies in approximately 80 countries.

A 1.1.2/3

Selected Bayer Sites in 2023

Administrative sites

Basel, Switzerland
Berlin, Germany
Leverkusen, Germany (headquarters)
Monheim am Rhein, Germany
St. Louis, United States

Research and development sites

Crop Science
Chesterfield, United States
Frankfurt am Main, Germany
Monheim am Rhein, Germany

Pharmaceuticals
Berlin, Germany
Whippany, United States
Wuppertal, Germany

Consumer Health
Basel, Switzerland
Gaillard, France
Whippany, United States

Production sites

Crop Science
Dormagen, Germany
Luling, United States
Vapi, India

Pharmaceuticals
Bergkamen, Germany
Berlin, Germany
Leverkusen, Germany

Consumer Health
Grenzach, Germany
Lerma, Mexico
Myerstown, United States

Selected sites based on number of employees (FTEs)

1.2 Strategy and Management

Radical realignment of operating model to focus on our mission “Health for all, Hunger for none”, improve our performance and boost growth

Ambitious sustainability targets for the entire Group

1.2.1 Strategy and Targets

Group strategy

A growing and aging world population and the increasing strain on nature’s ecosystems are among the major challenges facing humanity. As one of the world’s leading companies in the fields of health and nutrition, we can play a key role in devising solutions to tackle these challenges.

To support our endeavors in this regard, we primarily rely on innovations – not only to develop new products and solutions, but also to drive the digitalization of our business processes. We are active in regulated and highly profitable businesses that are driven by innovation and in which we have the objective to grow ahead of the competition. At the same time, we are also working on optimizing our resource allocation and cost base. Growth and sustainability go hand in hand; our business activities have the potential to make a significant contribution to achieving the United Nations’ Sustainable Development Goals (SDGs). We also pursue resolute, science-based climate action along our entire value chain.

Our strategy is subject to regular review to ensure adjustments can be made to reflect changes that arise across the economic and political landscape. We are currently working on a radical realignment of our operating model as a top priority. This new model, which we call Dynamic Shared Ownership (DSO), is designed to put patients, farmers and consumers front and center, while also accelerating the pace of innovation and unlocking the potential of each and every employee.

The DSO model envisages that our employees work in small, self-managed teams that are focused on a customer or a product. Activities are prioritized on the basis of their contribution to the mission, and progress is measured in short, 90-day cycles, giving us much greater agility. It also enables us to eliminate coordination work and reduce management layers.

Strategies of the divisions

Crop Science

The landscape is changing in agriculture: Increased pressures due to climate change combined with a growing population have created a pivotal moment in how our customers provide food, fuel and textile fibers for a world that needs to learn to live within planetary boundaries. These challenges have spurred rapid, disruptive changes in the industry, changing competition across the value chain, creating new players and opening up new sales opportunities.

In this dynamic environment, the speed and scale of innovation and a focus on sustainable results for our customers are crucial factors for success. With our innovation pipeline across Seeds & Traits, Crop Protection and Digital Farming, a deep digital ecosystem, a global footprint and a multitude of partnerships, we are in close proximity to our customers and very well positioned moving forward, with a clear focus on new, sustainable business models. We develop intelligent and integrated approaches for our customers, such as our Preceon™ Smart Corn System, our next-generation herbicide-tolerant soybean varieties, wheat hybrids, direct-seeded rice (DSR), biotechnology traits for corn in Africa and Asia, and carbon farming. An additional concept we are involved in is CoverCress™ for biofuels, which encompasses an oilseed for biofuels that offers cover-crop benefits for the ecosystem.

Combining our portfolio with digital insights increases the efficacy of our products and the benefits for farmers, as is the case with our Climate FieldView™ digital software platform, for example. In addition, we generate value in the business-to-business area through a variety of digital platforms (e.g., our partnership with Microsoft). Our digital developments accelerate innovation, drive process automation and increase R&D pipeline productivity.

Our mission is to transform the agricultural sector at scale on the basis of regenerative farming and to create a more sustainable food production system. For us, regenerative agriculture is an outcome-based production model based on two key building blocks: productivity, which focuses on helping farms to produce more with less; and regeneration, which focuses on delivering a positive impact on nature. Our central objectives are to increase agricultural yields and thereby improve the economic and social well-being of farmers, while at the same time ensuring a positive impact on the environment, for example by improving soil health, reducing greenhouse gas emissions and increasing carbon sequestration to halt the advance of climate change, protecting and promoting biodiversity, and conserving water resources.

As part of our commitment to sustainable agriculture, we are pursuing ambitious sustainability targets for 2030. We aim to enable our farming customers to reduce their on-field greenhouse gas emissions per mass unit of crop produced by 30% compared to the overall base year emission intensity[1]. This applies to the highest greenhouse gas-emitting crop systems in the regions Bayer serves with its products.[2] We also aim to reduce the environmental impact of our global crop protection portfolio per hectare by 30% against a 2014-2018 average baseline. Furthermore, we are working to support 100 million smallholder farmers in low- and middle-income countries by improving their access to agricultural products, services and partnerships, and we are targeting a 25% reduction in water use per kilogram of rice crop by transforming rice-cropping systems for our smallholder customers in the relevant regions where we operate, starting in India[3].

Pharmaceuticals

Driven by an aging population, the incidence of chronic diseases is on the rise, and an increasing number of patients are suffering from multiple conditions affecting their quality of life. Scientific breakthroughs in fields such as cell and gene therapy and precision medicine have the potential to cure patients with the highest unmet needs or even prevent diseases in the first place. In this regard, the pharmaceuticals market offers significant opportunities. At the same time, we also see risks arising from the global pressure on pricing coupled with rising costs and increased pressure to deliver value. We have therefore defined clear strategic priorities: maximizing the operational performance of our marketed products and renewing our topline with successful launches and advances in our late-stage research and development pipeline.

We are concentrating on leveraging our current portfolio to its fullest potential, while simultaneously renewing our topline by building on three new medicines with significant sales potential. Two of them – Nubeqa™ and Kerendia™ – are already on the market. The third compound, elinzanetant, is making good progress in our late-stage R&D pipeline. In addition, we will continue investigating the active ingredient asundexian in a study, and are currently reevaluating additional indications in patients in need of antithrombotic treatment. We are therefore focusing our marketing and R&D resources on ensuring the success of these strategic products. Furthermore, we own the full global marketing rights for the above-mentioned products. In line with this approach, we are investing to further grow and build our US business.

To safeguard long-term growth, we are continuing to invest in R&D as part of our focused strategy to deliver an innovative, differentiated and sustainable pipeline. We are concentrating on Oncology, Cardiovascular (including cardiovascular precision medicine, nephrology and acute care), Neurology & Rare Diseases and Immunology as therapeutic areas with high potential in terms of impact and value. We continuously strive to improve our R&D productivity. Our key measures are centered around R&D excellence, an operating model focused on our development products, dynamic resource allocation, data science and artificial intelligence (AI).

[1] Our reduction target refers to an overall base year greenhouse gas intensity that includes the weighted emission intensities of 18 crop-country combinations. Base years are defined individually for each crop-country combination, using data from either harvest year 2020, 2021 or 2022 depending on the availability of data.
[2] The crop-country combinations Italy-Corn and Spain-Corn were not selected based on these factors but were additionally included because data were already available.
[3] Base year calculated with data from 2021, validation process still ongoing.

In addition to strengthening our internal R&D capabilities, we are continuing to invest in our platform companies. BlueRock Therapeutics LP, United States, and Asklepios BioPharmaceutical, Inc. (AskBio), United States, are working steadily on developing breakthrough therapies in cell and gene therapies. Vividion Therapeutics, Inc., United States, is strengthening our discovery capabilities above all in Oncology and Immunology. Moreover, we are expanding our efforts to access external innovation through research collaborations and in-licensing, capturing continued growth opportunities in biologics and novel technologies.

Making medicines accessible is key to our sustainability agenda. Another focus is on improving women's health and strengthening their role in society by helping to promote gender equality and women's economic participation. As part of this endeavor, we are leveraging our leading position in women's healthcare (by sales) to help provide 100 million women in low- and middle-income countries with access to modern contraception yearly by 2030. Our partnerships with organizations such as UNFPA, USAID, the Bill & Melinda Gates Foundation, and the Red Cross, as well as digital partnerships with Your Life, Life Yangu, UNFPA India and Zuri Health, support this goal. In addition, we are committed to combating neglected tropical diseases and noncommunicable diseases.

Consumer Health

Rising healthcare costs, changing demographics and increasing health awareness among consumers continue to fuel attractive long-term growth in the consumer healthcare market. A more prominent consumer focus on self-care, prevention and convenience further sharpened during the pandemic is expected to continue to drive growth across all core Consumer Health categories and accelerate channel shifts toward e-commerce.

We provide consumers with products, services and information that empower them to improve their everyday health. Our strategy focuses on growing our brands in core Consumer Health categories, as well as the transition of prescription medicines to nonprescription status. Our profitable growth is driven by strong, science-based innovation with our trusted brands as well as new product launches. We are also continuously driving cost and cash productivity across the entire value chain.

We continue to accelerate our digital transformation efforts across all areas of our operations, in marketing, sales, supply chain and R&D, to improve engagement with consumers, customers and healthcare professionals while driving productivity, flexibility and resilience across our value chain. We leverage an agile innovation model and collaborate with external partners to provide consumers with innovative solutions that best address their everyday health needs. Through acquisitions and partnerships, we have gained access to new business models and capabilities to provide personalized diagnostics and treatment solutions.

We pursue ambitious sustainability targets. By 2030, we aim to expand access to self-care for 100 million people in economically or medically underserved communities. We are executing this ambition by fully embedding sustainability across our operations to offer solutions that best serve consumers, in particular those for whom self-care is the primary form of care.

Climate action and decarbonization

Climate change impacts us all and poses one of the greatest challenges for the future of humankind. We support the Paris Agreement and its objective of limiting global warming to 1.5°C above pre-industrial levels. Bayer's Climate Program is built on three pillars:

- **Reducing our own emissions:** Decarbonization is a top priority for us and we are committed to reducing the greenhouse gas (GHG) emissions associated with our products. We have set ourselves the goal of achieving net zero GHG emissions (including across our entire value chain) by 2050 or earlier. The targets we pursue as part of our decarbonization program have been confirmed by the Science Based Targets initiative (SBTi). The first step is to reduce our emissions by more than 42% by the end of 2029 compared with the 2019 baseline. This will involve a variety of measures, such as switching to renewable sources for 100% of the electricity we purchase.

// **Transforming our product portfolio and leveraging new business models:** The adjustments and changes that climate change will bring for our business fields are embedded in our strategies and processes. We intend to mitigate the risks and capitalize on the opportunities. To achieve this, we continuously analyze the impact of climate change on our own business operations as well as on the activities in our upstream and downstream value chain. We publish our Task Force on Climate-Related Financial Disclosures (TCFD) Report each year to increase transparency. As a science-based company, we place particular emphasis on our innovation capabilities in all divisions.

// **Reducing emissions within and outside our value chain:** We are also cooperating with our suppliers and customers to reduce GHG emissions along the upstream and downstream value chain by at least 12.3% by 2029 compared with the 2019 baseline. We additionally aim to reduce emissions outside our value chain by 2030, helping to achieve global climate targets. This involves our company purchasing certificates from certified climate protection projects that satisfy externally recognized quality standards. Alongside these commitments, our Crop Science Division is delivering innovations to strengthen climate resilience, with further significant contributions being made in the value chains of the agricultural industry.

Nonfinancial Group targets

To advance and measure the implementation of our strategy, we have set nonfinancial Group targets.

A 1.2.1/1

Nonfinancial Group Targets Through 2030

Target[1]	Base year 2019	2022	2023	Target for 2030
Number of smallholder farmers in low- and middle-income countries supported by products, services and partnerships	42 million	52 million	53 million	100 million
Number of women in low- and middle-income countries who have their need for modern contraception satisfied due to interventions supported by Bayer	38 million	44 million	46 million	100 million
Number of people in underserved[2] communities whose self-care is supported by interventions from Bayer	41 million	49 million	51 million	100 million
Scope 1 and 2[3] greenhouse gas emissions (million metric tons of CO_2 equivalents) (% change compared to base year)	3.76	3.03 (–19.5%)	3.00 (–20.2%)	–42%[4, 6]
Scope 3 greenhouse gas emissions from relevant[7] categories (million metric tons of CO_2 equivalents) (% change compared to base year)[8]	8.82	8.98 (+1.8%)	8.44 (–4.2%)	–12.3%[5, 6]
Offsetting of remaining Scope 1 and 2 greenhouse gas emissions (million metric tons of CO_2 equivalents) (% target attainment)[9]	0	0.45 (14.9%)	0.60 (20.0%)	100%

[1] A more detailed description of the calculation methodologies is published on our website www.bayer.com/en/sustainability.
[2] Economically or medically
[3] Covering Scope 1 and 2 emissions (market-based) of sites that have an energy consumption in excess of 1.5 terajoules
[4] Corresponding to the sustainability target of limiting global temperature rise to below 1.5°C above pre-industrial level
[5] Corresponding to the sustainability target of limiting global temperature rise to below 2°C above pre-industrial level
[6] By the end of 2029
[7] In accordance with the criteria set out by the Science Based Targets initiative (SBTi), the Scope 3 categories relevant for our goal include emissions in the following categories: (1) purchased goods and services, (2) capital goods, (3) fuel- and energy-related activities, (4) (upstream) transportation and distribution, and (6) business travel.
[8] Values for 2022 were updated due to new findings in category 3.1.
[9] To be offset by purchasing certificates from verified climate protection projects, primarily in forestry and agriculture

In our **Crop Science** Division, we support smallholder farmers by supplying high-quality seeds and crop protection products, technologies and services. In 2023, together with the Bill & Melinda Gates Foundation, the Bayer Foundation continued to support Mercy Corps AgriFin's Digital Farmer II program, for example. The program is aimed at providing smallholder farmers in Africa with access to digital offerings, such as information and financial products and services, through 2025. In 2023, we supported 53 million smallholder farmers (2022: 52 million) in low- and middle-income countries. Due to the divestment of the Environmental Science Professional business in October 2022, the number of smallholder farmers no longer contains the respective Vector Control reach from 2023 onwards.

In our **Pharmaceuticals** Division, our sales activities for modern contraception are supporting global aid programs (such as the United Nations Population Fund, UNFPA), for which we offer our products on favorable terms. Alongside product sales, we are also engaged in partnerships like "The Challenge Initiative" with the Gates Institute at Johns Hopkins University. The partnership programs we support help numerous women in Asia and Africa gain access to modern contraception, irrespective of the method or manufacturer. In 2023, we were able to increase the number of women reached to 46 million (2022: 44 million).

In our **Consumer Health** Division, we advance access to everyday health for people in underserved communities. We leverage our global brands and partnerships to develop and adapt self-care solutions for low-income consumers, bring targeted health education to communities who need it most, establish critical distribution channels, and advocate globally for science-based and accessible self-care. Our signature program, the Nutrient Gap Initiative, aims to tackle malnutrition brought about by widespread micronutrient deficiency in underserved communities around the globe, preventing irreversible health damage and breaking the cycle of poverty. Through our global partnership with Vitamin Angels, we focus on underserved pregnant women and their babies who are particularly vulnerable, improving access to micronutrients for 4 million mothers and babies globally every year. Through all our direct efforts and partnerships, we reached 51 million people in 2023 (2022: 49 million), and an additional 23 million in India. Bayer was ranked #1 in Nutrition in the 2023 Food and Agriculture Benchmark which assessed 350 of the most influential food and agriculture companies around the world, up from #23 in 2021.

As part of our **climate strategy**, we reduced Scope 1 and 2 greenhouse gas emissions by 0.03 million metric tons of CO_2 equivalents (–0.9%) year on year in 2023, mainly due to a greater share of electricity being purchased from renewable energy sources. In the Scope 3 Science Based Targets (SBT) categories that are relevant for our company, our emissions fell by 0.54 million metric tons of CO_2 equivalents, representing a decrease of 6.0% compared with 2022. The fall in Scope 3 emissions in the SBT-relevant Scope 3 categories was largely attributable to reduced purchasing volumes (Scope 3.1) and the associated logistics operations (Scope 3.4).

In addition, we offset 0.6 million metric tons of CO_2 equivalents through external projects to achieve carbon neutrality at our own sites.

1.2.2 Management Systems

Planning and steering

Economic planning and steering are conducted in line with the frameworks that are set for the Group and the divisions by the Board of Management in the course of the strategic planning process, and are translated into specific targets during operational planning. The planning and steering process is complemented by the continuous monitoring of business developments, with key financial and nonfinancial management and performance indicators being updated regularly.

The following financial and nonfinancial indicators were employed to plan, steer and monitor the development of our business:

Operational management indicators

The main parameters in performance management at the operational level are sales growth, earnings and cash flow data, which also form the basis of short-term variable compensation (STI). Sales growth is measured in terms of the change in sales after adjusting for currency and portfolio effects (Fx & portfolio adj.) in order to reflect the operational business development of the Group and the divisions. A key measure of profitability is the EBITDA margin before special items, which is the ratio of EBITDA before special items to sales. Another important profitability indicator for the Bayer Group is core earnings per share, which is the core net income divided by the weighted average number of shares. Free cash flow – an absolute indicator – shows the generation of freely available financial resources and also reflects the company's financial strength and earning power.

Strategic value management indicator: ROCE

Return on capital employed (ROCE) is used as a strategic metric to measure the company's operating profit after taxes in relation to the average capital employed. Comparing ROCE against the weighted average cost of capital (WACC) on an annual basis illustrates the level of value creation. It also forms part of our long-term stock-based cash compensation (LTI).

Total shareholder return

We aim to create shareholder value and thus deliver attractive returns for our stockholders. Total shareholder return, which is determined based on the change in the share price over the measurement period plus any dividends paid in the interim, also forms part of our long-term stock-based cash compensation (LTI).

Sustainability

We aim to improve people's lives through our products. At the same time, we also endeavor to reduce our ecological footprint. We regulate and measure the attainment of our sustainability targets with the aid of nonfinancial key performance indicators (KPIs). We take into account the number of people reached in the "100 million" divisional targets and our greenhouse gas emissions as indicators for tracking the sustainable steering of our business and the reduction of our ecological footprint (see A 1.2.1/1). Our sustainability KPIs are also reflected in our long-term stock-based cash compensation (LTI) program.

Integrated management system

We maintain a Group-wide integrated management system (IMS), which is detailed in a corporate policy. The IMS provides a framework for all management systems at Bayer, ensuring compliance with the law and with internal and external requirements while also ensuring efficient ways of working. This is achieved through internal regulations and applicable processes involving clear roles and responsibilities. The IMS therefore plays a key role in safeguarding our company's license to operate.

1.3 Focus on Innovation

We create value for customers and society by offering new solutions. Our activities focus on innovative products based on our research and development (R&D) competencies, supplemented by new approaches in our process, service and business models. We are also committed to social innovation to improve living conditions for people in developing countries and disadvantaged individuals in our society.

The results of our research and development help us contribute to solving global challenges in medical care and agriculture. In addition to the strong innovative capabilities of our employees throughout the company, our efforts are driven by a broad open innovation network and the use of new, groundbreaking technologies with a particular focus on data science insights.

Partnerships are integral to our innovation strategy, ensuring access to complementary technologies and expertise. We enter into strategic alliances with various partners such as universities, governmental agencies, startups, suppliers and other industrial companies.

We maintain a global network of R&D locations where around 16,800 Bayer employees work. In 2023, our research and development spend before special items amounted to €5,835 million (2022: €6,168 million).

Excellence in research and development

The activities we pursue are aligned with the innovation strategies of our divisions, and are aimed at improving human and plant health and sustainably safeguarding stable harvests in agriculture in line with our mission “Health for all, Hunger for none.”

We are increasingly employing data science methods in the R&D projects of our three divisions. In addition, our “Life Science Collaboration” program provides a platform that enables our employees to actively promote disruptive innovations on a cross-divisional basis.

At Crop Science, we are driving forward the development of innovative products and services tailored to farmers’ individual needs. We increasingly offer our customers comprehensive and novel systems solutions to drive long-term growth. With our investments in research and development, we have developed cutting-edge technologies and innovations which are designed to increase our customers’ productivity and thus enhance food security, and help farmers further reduce the environmental cost of agriculture. Some of these innovations were presented to the public in 2023 at the inaugural Crop Science Innovation Summit, with the concept of regenerative agriculture taking center stage. We offer a range of products and services to promote this approach to farming, such as our short-stature corn, the Climate FieldView™ integrated digital platform and our carbon farming activities, which enable farmers to sequester carbon in soil. Our crop protection innovations enable us to set new industry standards with sustainable solutions and develop a new generation of crop protection products through the CropKey approach. The focus here is on new mechanisms of action and selecting the best technological solutions, with safety and sustainability aspects being taken into consideration right from the beginning. Our wholly owned subsidiary Targenomix makes an important contribution in this regard by leveraging its leading know-how in the area of systems biology. In 2023, we began the construction of a building complex at the Monheim site in Germany that includes laboratories, offices and a greenhouse area. This €220 million investment will go toward helping make crop protection products safer for people, animals and the environment. We aim to increase our market potential by tapping into new, adjacent markets. To achieve this goal, we are increasingly focusing on partnerships. Our collaboration with Kimitec Sociedad Limitada, Spain, in the area of biologicals is one such example.

Our Pharmaceuticals Division focuses on four core areas: Oncology, Cardiovascular, Neurology & Rare Diseases, and Immunology. This approach is designed to translate higher innovation quality and productivity into long-term growth. Our subsidiary Vividion Therapeutics Inc., United States, reached a key milestone for its innovative chemoproteomics technology platform by initiating a Phase I trial with a highly specific, potent Kelch-like ECH Associated Protein 1 (KEAP1) activator for the treatment of advanced solid tumors. This is the first clinical candidate in its class for cancer treatment. We are investing US$250 million in a new cell therapy manufacturing facility in Berkeley, California, United States, that will supply cell therapy products for additional clinical trials and future product launches. In 2023, we also announced a partnership with Twist Bioscience Corporation, United States, to accelerate drug discovery. The collaboration gives us access to a library of synthetic antibodies that are to be investigated in various indications. Furthermore, we have inaugurated the “Bayer Co.Lab” incubator in Cambridge, Massachusetts, United States. The incubator focuses on cell and gene therapy startups with the aim of accelerating innovation and fostering collaborations within vibrant biotech ecosystems. Co-located with the Bayer Research and Innovation Center (BRIC), it creates an interdisciplinary community for startups.

In 2023, the Consumer Health Division launched a business unit focused on developing new precision health products across its range of everyday health categories. We are already active in the precision health space. Together with our partner Ada Health GmbH, Germany, we have conducted a variety of pilot projects since 2021 to embed Ada’s AI-based symptom assessment into several product groups. We are supporting a new diagnosis methodology for heart disease with an innovative cardiovascular risk assessment tool powered by Huma Therapeutics Limited, United Kingdom. The risk assessment is 100% digital and does not require users to submit a blood sample or undergo a physical examination.

The Bayer Bioethics Council, an external advisory body which was established at the end of 2021, convened twice in 2023 to discuss topics such as secondary use of clinical data and generative AI. The Bayer Science Collaboration Explorer transparency initiative was expanded in 2023 and published information on contract-based collaborations between Bayer business units in Germany, the United States and Switzerland and global partners.

Leaps by Bayer

Through our venture capital arm Leaps by Bayer, we invest in disruptive innovations in the areas of health and agriculture. The investment activities of Leaps by Bayer are focused on applying and further developing new technologies with the potential to solve some of humankind's most pressing problems and thus also make an important contribution to the Sustainable Development Goals of the United Nations. The framework established for the adoption of new activities is defined by the ten "leaps":

- Cure genetic diseases
- Provide sustainable organ and tissue replacement
- Reduce environmental impact of agriculture
- Prevent and cure cancer
- Protect brain and mind
- Reverse autoimmune diseases and chronic inflammation
- Provide next-generation healthy crops
- Develop sustainable protein supply
- Prevent crop and food loss
- Transform health with data

The Leaps by Bayer portfolio comprised more than 50 active investments in biotech and tech startups at the end of 2023.

Examples of the wide-ranging activities in the field of healthcare in 2023 included the development of innovative therapeutic approaches to treat cancer and genetic diseases.

In connection with the focus on "Prevent and cure cancer," Leaps co-led a financing round at the beginning of the year for NextPoint Therapeutics, United States, a biotech firm engaged in the development of novel monotherapies in immuno-oncology. Leaps also invested in Boundless Bio, Inc., United States, a next-generation precision oncology company that develops innovative therapeutics directed against extrachromosomal DNA (ecDNA) for patients with oncogene amplified cancers. Furthermore, Leaps participated in a financing round for Paratus Sciences Corporation, United States, a company which is seeking to develop new therapies for some of the most challenging health issues facing humanity. The objectives are to control inflammation, tolerate viral infections and resist cancer. 2023 also saw Leaps invest in 65LAB, a newly established incubator based in Singapore. It marks the first time Leaps has invested in Asia. 65LAB aims to advance drug discovery and the creation of new therapeutics companies by investing in research groups that are seeking to achieve fundamental breakthroughs in the biosciences.

An additional milestone was the announcement of positive results from a clinical Phase I trial in the treatment of Parkinson's disease conducted by BlueRock Therapeutics LLP, United States. BlueRock Therapeutics is a wholly owned, independently operated subsidiary of Bayer AG. In addition, Asklepsios BioPharmaceutical, Inc. (AskBio), United States, a wholly owned and independently operated subsidiary of Bayer AG, and the Leaps portfolio company ReCode Therapeutics, Inc., United States, announced the signing of a collaboration agreement, marking a milestone in gene therapy research and development. The agreement sees the two companies working together to develop medicines using a single-vector gene editing platform.

In the area of agriculture, Leaps participated in a financing round for ChrysaLabs Inc., Canada, a startup which combines AI with a sampling probe in order to provide real-time measurements of soil nutrients, delivering findings faster and more cost-effectively than is possible with conventional methods. In addition, the Crop Science Division announced a new collaboration with Oerth Bio LLC, United States, a company already listed in the Leaps portfolio, at the beginning of the year. The new collaboration is aimed at developing environmentally friendly crop protection products using Oerth's PROTAC™ protein degradation technology. Furthermore, the Leaps portfolio company Pairwise Plants LLC, United States, entered into a new five-year cooperation agreement with the Crop Science Division to jointly optimize gene-edited short-stature corn.

Patents protect Bayer's intellectual property

Reliable global protection of intellectual property rights is particularly important for an innovation company like Bayer. In most cases, it would be impossible to cover the high costs and risks incurred in the research and development of innovative products without this protection. We are therefore committed worldwide to protecting both the international patent system and our own intellectual property. Depending on the legal framework, we endeavor to obtain patent protection for our products and technologies in major markets. When we successfully market patent-protected products, we are able to invest the profits sustainably in research and development.

The term of a patent is normally 20 years from the date the application is filed. Since it takes an average of 11 to 13 years to develop a new medicine or crop protection active ingredient, only seven to nine years of patent protection remain following the product's approval. The same applies to the development of new transgenic traits. To nevertheless provide an adequate incentive to make the necessary major investments in research and development, the European Union member states, the United States, Japan and some other countries extend patent terms or issue supplementary protection certificates to compensate for the shortening of the effective protection period for pharmaceutical and crop protection patents, but not for transgenic traits.

Crop Science

Working with digital applications and teams of experts, we develop a broad spectrum of tailored solutions that enable farmers to achieve higher productivity in a sustainable manner. Our R&D organization comprises approximately 8,300 employees (2022: 7,700)[4] operating in more than 60 countries around the world. We also collaborate with many external partners under our Open Innovation model to strengthen our innovation power.

Research and development capacities

Our R&D is focused on developing solutions for farmers and customers across multiple indications. Using a targeted approach, we focus on bringing together our expertise across the following disciplines to deliver innovation faster.

Our **breeding** innovations are aimed at improving crop yields, boosting resiliency against pests, disease and a changing climate, and improving quality. We combine genomic, phenotypic and environmental data with the use of advanced breeding methods and AI to develop novel seed products. Advances in controlled-environment greenhouses, automated and prescriptive seed packaging systems, and advanced field data collection systems enable us to accelerate the development and positioning of seed products for our largest markets. Through our advanced breeding program, we were able to deploy more than 400 new hybrid and varietal seed products in 2023, across corn, soybeans, cotton, oilseed rape/canola, rice, wheat and vegetables.

Biotechnology and **genome editing** tools allow us to develop traits in crops like corn, soybeans, cotton and canola that strengthen plants' resistance to insect pests, disease, weeds and other environmental stresses such as drought or high winds, protecting or enhancing yields. Biotechnology enables sustainable farming with reduced pesticide use and conservative tillage practices that are designed to preserve topsoil and decrease CO_2 emissions. We are the global leader in plant biotechnology and have 12 next-generation traits in development.

In our **small molecule chemistry** program, we design, develop and optimize new, safe and sustainable crop protection products with herbicidal, insecticidal and fungicidal activity. We are working on tailored solutions that will help farmers achieve better harvests by managing threats in a more targeted manner. With hundreds of new Crop Protection product registrations annually, our life-cycle management program allows us to extend the reach of our products into new crops and geographies. Discovering new modes of action (MOAs) is one of the priorities of our new CropKey approach, contributing to finding improved solutions for our customers' needs and achieving our sustainability targets, with a particular focus on reducing the environmental impact of crop protection.

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[4] Including permanent and temporary employees

Our **biologicals** unit encompasses a broad range of solutions with a focus on microbial organisms and materials derived from them as well as plant extracts. Biologicals have the potential to reduce the use of synthetic chemicals, decrease residue levels and support resistance management strategies. By introducing biological products into programs with traditional chemistry, we are building a more holistic application system. We are continuing to realign our activities in this field by partnering with innovation leaders and strengthening internal R&D activities around product development and support to product launch.

We are continuing to expand our **digital solutions** and expertise in data science. We offer digital platforms and tailored solutions around the world, as well as solutions for the entire value chain. With Climate FieldView™, our digital farming platform, we have insight into field-specific information that enables us to use novel modeling to make custom product recommendations that are precisely tailored to each individual field. With these insights we can maximize the value of our seed and chemistry portfolio, help farmers expand participation in the carbon markets and food, feed, fiber and fuel value chains, and lead our company toward digitally enabled business models and new opportunities for growth.

Research and development pipeline

Our product pipeline contains numerous new small molecule products, seed varieties, digital products and biologicals that promote sustainable agriculture and help improve farmer productivity. The following table shows new products in late development phases[5] that are scheduled to be launched by 2025.

A 1.3/1

Product Innovation Pipeline[1]

Crop/digital application	First launch	Product group	Indication	Product/trait/number of hybrids or varieties
Corn	Annual	Breeding/native trait	Crop efficiency	~ 240 new corn seed hybrids in 2023
	2024	Breeding/native trait	Crop efficiency	Preceon™/short-stature corn
	2024	Biotechnology trait	Pest management	VT4PRO™
Soybeans	Annual	Breeding/native trait	Crop efficiency	~ 90 new soybean seed varieties in 2023
Cotton	Annual	Breeding/native trait	Crop efficiency	> 10 new cotton seed varieties in 2023
Crop Protection	Annual	Biological/small molecule LCM[2]	Crop efficiency, disease, pest and weed management	> 190 new crop protection registration approvals in 2023
	2025	Crop protection	Pest management	Plenexos™ (spidoxamat)
Vegetables	Annual	Breeding/native trait	Crop efficiency, disease management	> 60 new seed varieties in 2023
Digital applications	2024	Digital platforms	Platform	Microsoft partnership, providing B2B agricultural technology services
	2024	Value chain solutions	Carbon markets	Enable offset and inset approaches for carbon markets in North America, while advancing our pilot projects in other regions
	2024/2025	Tailored solutions	Crop efficiency	Corn and soy disease management in North America Corn seed hybrid selection and planting density recommendations for Brazil and Europe

As of December 2023
[1] Planned market launch of selected new products, subject to regulatory approval
[2] Life-cycle management

In 2023, we launched confirmatory technical proof-of-concept field studies for two new small-molecule or biological active ingredients and plant traits[6]. For 2024, we aim to launch confirmatory technical proof-of-concept field studies for two to three new small-molecule active ingredients and plant traits.

[5] Products in late development phases have proven proof of concepts validated by field studies and are ready for hand-off to the regulatory team for regulatory approvals.
[6] A new plant trait is a specific characteristic that has not yet been available or offered at Bayer for the crop plant in question.

New products and registrations in 2023 (examples)

ThryvOn™ Technology stacked with Bollgard™ 3 XtendFlex™ Technology was launched commercially in the United States to provide a broad spectrum of insect protection, and more options against tough-to-control and resistant weeds like Palmer amaranth, waterhemp and marestail.

Iblon™, a new broad-spectrum fungicide, received UK regulatory approval in 2023 and will be commercially launched for 2024. It is designed to deliver comprehensive fungicidal activity against the main foliar diseases in wheat.

Curbix™ Pro, an innovation in pest management technology for rice paddy production, has been launched in India. This combination of two complementary modes of action can be used against hard-to-control plant hoppers, is effective against all instars and provides long-lasting control of the brown planthopper.

We continued the expansion of the Preceon™ Smart Corn System testing in 2023 through the Ground Breakers™ Field Trials to approximately 30,000 acres and nearly 300 farms. This test and learn approach will be essential for enhancing the system in the future. We expect to have a targeted introduction in the United States in 2024.

Our direct-seeded rice (DSR) system, which provides an alternative to traditional rice production, was introduced in 2023. Moving from transplanted puddled rice cultivation to direct-seeded rice can help farmers reduce water use by up to 40%, greenhouse gas emissions (GHG) by up to 45% and reduce farmers’ dependence on scarce and costly manual labor by up to 50%. By 2030, we plan to bring the DSR system to one million hectares in India, supporting over two million early-adopter smallholder rice farmers through our DirectAcres program.

Following a successful pre-launch in Paraguay and Brazil for 2022, we have commercially launched our new fungicide Fox™ Supra, providing growers with a new active ingredient, Indiflin™, to defend their harvests and strengthening our leading position in this market segment. Fox™ Supra offers two complementary modes of action, providing control of Asian soybean rust, and will complement our broad-spectrum solution Fox™ Xpro in seasonal spray campaigns, helping farmers achieve higher yields.

In the United States, Velum™ Rise was launched as a novel nematicide/fungicide developed specifically for potato growers. It combines fluopyram and penflufen to deliver advanced protection against nematodes and diseases, resulting in improved yields. Building upon the trusted performance of fluopyram applied in furrow for true nematode control, Velum™ Rise broadens the disease spectrum by adding penflufen, suppressing key soil-borne diseases like Rhizoctonia solani and black dot.

Patents

We routinely apply for patent protection for our innovations in both chemical crop protection and seed / biotechnology. The link between patents and products is relatively complex. Products often combine multiple technologies that are patented differently in different areas of the world, with patents often granted only late in the product life cycle.

Although the patents have already expired for some of our crop protection active ingredients, such as glyphosate, trifloxystrobin, prothioconazole, bixafen[7] or imidacloprid, we have a portfolio of patents on formulations, mixtures and / or manufacturing processes for these active ingredients. In addition, fluopyram is patent-protected until 2025 in the United States and Brazil, and there are supplementary protection certificates granted in several European countries including Germany, France and the United Kingdom until 2024. The younger active ingredient tetraniliprole has patent protection until 2029 in Germany, France, the United Kingdom, Brazil, Canada and other countries, and in the United States its patent protection extends until 2030[8]. Isoflucypram is patent-protected in the United States until 2028 and in Brazil, Canada, Germany, France, the United Kingdom and other countries until 2030.[9]

While our patent coverage on the first-generation Roundup Ready™ trait for soybeans has expired, some varieties – for example in the United States – are still protected by variety patents. The patent coverage on our current generation of soybean traits (Roundup Ready 2 Xtend™, XtendFlex™ and Intacta 2 Xtend™) runs until at least the end of the decade.

In corn seed and traits, most farmers have already upgraded to next-generation branded corn traits. SmartStax™ and SmartStax™ PRO have patent coverage running until at least 2028. For cotton seed and traits, Bollgard™ 3 XtendFlex™ has patent coverage until at least the mid-2030s.

Partnerships and collaboration

We partner with innovators from across the world to bring the disruptive new technologies that farmers need to market more quickly and efficiently, in collaborations that allow us to leverage our specialized expertise and resources.

Biologicals

In January, we announced a partnership with M2i Group to supply fruit and vegetable growers around the world with pheromone-based biological crop protection products. Through the agreement we became the exclusive distributor of select M2i products based on an original slow-release pheromones formulation. This easy-to-apply gel technology targets lepidoptera pests in crops that include stone and pome fruits, tomatoes and grapes, and in the future will also target sucking pests. This partnership led to our first successful pheromone-based product launch from this range, Vynyty™ Tuta Press, which was launched in Spain in July.

In February, we began a strategic biologicals partnership with Kimitec focused on accelerating the development and commercialization of biological crop protection solutions and biostimulants derived from natural sources.

Gene editing

In August, we started a new partnership with Pairwise focused on further innovations in short-stature corn. This new program leverages Pairwise’s Fulcrum™ platform and builds on the success of the two companies’ initial five-year collaboration for corn, soy, wheat, cotton and canola.

We are part of a global network of partners from diverse segments of the agricultural industry and work together with numerous public-private bodies, NGOs, universities, and other institutions.

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[7] Bixafen benefits from supplementary protection certificates in some European countries including Germany, France and the United Kingdom until 2024 and in some CIS countries (Belarus and Russia) until 2025.
[8] Patent protection does not take into account patent term extensions or supplementary protection certificates.
[9] Patent protection does not take into account patent term extensions or supplementary protection certificates.

The following table provides an overview of important collaborations that are currently ongoing.

A 1.3/2

Crop Science: Important Collaborations

Partner	Collaboration objective
AbacusBio Limited	Accelerate Bayer's Global Crop Breeding program by utilizing AbacusBio's expertise in trait prioritization and valuation to advance products that anticipate grower and market needs
AgVend, Inc.	Provide digital enablement solutions to FieldView™ customers as their system of action, so they can increase their margins, reduce their cost of sale, and ultimately set a new standard for their customers at the farmgate
Andes Ag, Inc.	Andes' process integrates microbes that colonize a seed's root structure, starting biological nitrogen fixation, and enabling the crop to draw down nitrogen from the air. This will contribute to the reduction of additional field inputs and ag-associated greenhouse gas production
Arvinas, Inc.	Oerth Bio LLC was co-founded with the biotechnology firm Arvinas to utilize Arvinas' targeted protein degradation technology PROTAC™ to develop innovative new agricultural products to improve crop yields
BASF SE	Co-funded collaboration agreement to develop transgenic products with increased yield stability in corn
Brazilian Agricultural Research Corporation – Embrapa	R&D cooperation to address specific agricultural challenges in Brazil, e.g., Integrated Weed Management and soil carbon dynamics and measurement methods in tropical environments
2Blades Foundation	Collaboration research program to identify Asian soybean rust resistance genes in legumes and other engineered genes to control this important fungal disease in soybeans
Cibus, Inc.	Collaboration to explore opportunities to enhance seeds through precision breeding capabilities
Citrus Research Development Foundation, Inc.	Search for solutions to citrus greening disease, which currently threatens the global citrus production and juice industry
Elemental Enzymes Ag and Turf, LLC	Use of soil microbes to improve plant health and crop efficiency, thereby increasing crop productivity
Ginkgo Bioworks, Inc.	Multi-year strategic collaboration as the anchor partner of Ginkgo's expanded agricultural biologicals platform, focusing on nitrogen fixation, crop protection and carbon sequestration
Grains Research and Development Corporation (GRDC)	Partnership for the discovery and development of innovative weed management solutions (herbicides)
Kimitec, Sociedad Limitada	Multi-year strategic collaboration to deliver botanical products for agriculture
KWS SAAT SE	Joint collaboration and commercial agreement for herbicide-tolerant sugar beet
Microsoft Corp.	Strategic partnership developing a new cloud-based set of business-to-business tools and services for use in agriculture and adjacent industries
National Resources Institute Finland (Luke)	Computational tools integrating genetics and genomics evaluation to improve field crops
Pairwise Plants, LLC	Research alliance to develop genome editing tools and innovations in short-stature corn
RAGT SEMENCES S.A.S	Exclusive collaboration to develop state-of-the-art hybrid wheat varieties to meet the evolving needs of farmers in Europe
Rantizo, Inc.	Precision aerial pesticide applications via unmanned aerial vehicles (UAVs) while reducing soil compaction. Focusing the application of the right amount to the right plant allows an overall reduction in pesticide applications and of carbon emissions compared to traditional sprayers. Understanding technology capabilities and evaluating service quality
Semilla Nueva	Accelerate corn biofortification efforts for smallholders
Sound Agriculture Co.	Sound's dual-technology platform uses biochemistry to tap into the natural capabilities of the plant and soil microbiome to increase the speed and efficiency of agriculture
UC Davis-Eduardo Blumwald	Identify pathways in cereal crops to enhance biological nitrogen fixation and reduce need for chemical fertilizers

Pharmaceuticals

Our research and development activities in the Pharmaceuticals Division are focused on indications with a high medical need. In 2023, while maintaining our existing projects in ophthalmology and women's healthcare, we realigned our focus to concentrate on four key areas: oncology, cardiovascular, neurology & rare diseases and immunology. In the context of our cell and gene therapy platform, we develop treatments for indications which are likewise associated with a high medical need and in which cell and gene therapies could offer promising treatment options, regardless of the specific therapeutic area. Examples of this include neurodegenerative disorders, muscular dystrophies, cardiovascular and metabolic diseases, and ophthalmological disorders. Our work in radiology focuses on the development of digital solutions, contrast agents and injection systems. Approximately 7,800 (2022: 7,900) employees work in our R&D departments at a number of locations around the world, mainly in Germany and the United States.

In our R&D activities, we combine profound knowledge about disease biology with numerous therapy forms and focus on the systematic implementation of digital technologies and the deployment of data sciences to increase the speed, reliability and effectiveness of our R&D processes. Our aim is to employ precision medicine to offer patients effective, individualized solutions that prevent, diagnose, treat or stop diseases.

With the acquisitions of the biotech firms BlueRock Therapeutics, Inc., United States, in 2019 and Asklepios Biopharmaceutical Inc. (AskBio), United States, in 2020, and the biopharmaceutical company Vividion Therapeutics, Inc., United States, in 2021, we have expanded our expertise in new modalities to include competencies in the areas of cell therapy (BlueRock) and gene therapy (AskBio) while also strengthening our existing knowledge in the field of precision small-molecule therapeutics (Vividion). As internal partners, these three companies operate largely autonomously but in close cooperation with our research and development experts in the Pharmaceuticals Division. They play a key role in sustainably expanding our research pipeline with novel development candidates. In 2023, the three companies further advanced their development portfolio and established additional expertise in specific areas. Further information can be found in the “Cell and gene therapy”, “Chemoproteomics” and “External innovation” sections.

Promising new molecular entities from our early research pipeline are transferred to preclinical development. We define a new molecular entity (NME) as an active ingredient that is not yet approved for use in humans. In preclinical development, these substances are examined further in various models with respect to their suitability for clinical trials and the associated first-in-human studies.

Clinical trials are an essential tool for determining the efficacy and safety of new drugs before they can be used to diagnose or treat diseases. The benefits and risks of new medicinal products must always be scientifically proven and well documented. All our clinical trials comply with strict international guidelines and quality standards, as well as the respective applicable national laws and standards.

Bayer also publishes information about clinical trials in line with the applicable national laws and according to the principles of the European (EFPIA) and US (PhRMA) pharmaceutical industry associations, these principles being defined in position papers.

Information about our own clinical trials can be found in the publicly accessible register www.ClinicalTrials.gov and our own Trial Finder database. Further information on our globally uniform standards, the monitoring of studies and the role of the ethics committees can be found on our website.

Cell and gene therapy

The addition of cell and gene therapies to our drug development portfolio has given us new, potentially transformative treatment approaches that could intervene in disease mechanisms and ultimately stop or reverse them at some point in the future.

Ensuring scientific breakthroughs in cell and gene therapy translate into available treatments on a global scale requires a strong commitment across the whole value chain. That’s why we are investing in the know-how and infrastructure in every step of the process, from early research and development to advanced production.

Our development portfolio comprises seven projects in various stages of clinical development that cover several therapeutic areas with a high unmet medical need, with innovative programs in areas such as Parkinson’s disease, rare diseases and congestive heart failure.

A 1.3/3

Cell and Gene Therapy Projects in Clinical Development

Project	Indication (modality, clinical phase)
AB-1005 (formerly AAV2_GDNF_PD)[1]	Parkinson's disease (gene therapy, Phase Ib)
ACTUS-101[2]	Pompe disease (gene therapy, Phase I/II)
AB-1002 (formerly NAN-101)[3]	Congestive heart failure (gene therapy, Phase II)
AB-1005 (formerly AAV2_GDNF_MSA)[4]	Multiple system atrophy (gene therapy, Phase I)
Bemdaneprocel (BRT-DA01)[5]	Parkinson's disease (cell therapy, Phase I)
BV-101[6]	Huntington's disease (gene therapy, Phase I/II)
LION-101[7]	Limb-girdle muscular dystrophy type 2I/R9 (gene therapy, Phase I/II)

As of January 31, 2024
[1] Registration number NCT04167540, enrollment concluded
[2] Registration number NCT03533673, enrollment concluded
[3] Registration number NCT05598333, enrollment started
[4] Registration number NCT04680065, enrollment started
[5] Registration number NCT04802733, enrollment concluded
[6] Registration number NCT05541627, active, not enrolling
[7] Registration number NCT05230459, enrollment started

The following material developments occurred in 2023 and early 2024:

- // In June, together with our subsidiary BlueRock, we announced first positive results from the Phase I study of bemdaneprocel, BlueRock's investigational neuronal stem cell therapy in Parkinson's disease. Detailed data was announced in August, along with the confirmation that the study had met its primary objective for safety and tolerability with initial improvements seen in clinical outcomes. A Phase II study is planned to begin enrolling patients in the first half of 2024.
- // Our subsidiary AskBio initiated a Phase I study with a gene therapy that is being developed for the treatment of Huntington's disease.
- // AskBio also initiated a Phase I/II study with a gene therapy that is being developed for the treatment of limb-girdle muscular dystrophy 2I/R9 (LGMD2I/R9).
- // In August, BlueRock announced a collaboration and option agreement with US company bit.bio for the discovery and manufacture of regulatory T cell-based therapies.
- // In November, AskBio announced that the first patient has been randomized in the Phase I clinical trial of AB-1005, its gene therapy candidate for the treatment of multiple system atrophy.
- // In January 2024, we announced together with our subsidiary AskBio that the Phase Ib trial of AB-1005, an investigational gene therapy candidate for the treatment of Parkinson's disease, had met the trial's primary endpoint. A Phase II study is planned to be initiated in the first half of 2024.
- // Also in January 2024, together with our subsidiary AskBio, we announced the initiation of GenePHIT, a Phase II trial of gene therapy candidate AB-1002 in congestive heart failure.

Chemoproteomics

The chemoproteomics platform technology of our subsidiary Vividion enables us to unlock a large number of traditionally unaddressable oncological targets with the aid of precision cancer therapeutics. Paired with our Pharmaceuticals Division's expertise in the research and development of small-molecule active substances, we are developing novel active ingredients for the treatment of cancer indications with a high medical need. Our aim is to open up new therapeutic options for patients and further expand our oncology research pipeline. In July 2023, Vividion launched a Phase I trial with the KEAP1 activator for the treatment of advanced solid tumors. This was followed in January 2024 by the initiation of a Phase I clinical trial with the STAT3 inhibitor in advanced solid and hematologic tumors.

A 1.3/4

Chemoproteomics Projects in Clinical Development

Project	Indication (modality, clinical phase)
VVD KEAP1 act.[1]	Advanced solid tumors (small molecule, Phase I)
VVD STAT3 inh.[2]	Advanced solid and hematologic tumors (small molecule, Phase I)

As of January 31, 2024
[1] Registration number NCT05954312, enrollment started
[2] Registration number NCT06188208, enrollment started

Phase II and III clinical testing projects

The following table shows our most important drug candidates currently in Phase II of clinical testing:

A 1.3/5

Research and Development Projects (Phase II)

Project	Indication
Anti alpha2-antiplasmin	Thrombolysis
Runcaciguat (sGC activator)	Non-proliferative diabetic retinopathy
Zabedosertib (IRAK4 inhibitor)	Atopic dermatitis

As of January 31, 2024

The following table shows our most important drug candidates currently in Phase III of clinical testing:

A 1.3/6

Research and Development Projects (Phase III)

Project	Indication
Aflibercept 8 mg (VEGF inhibitor)[1]	Macular edema secondary to retinal vein occlusion
Asundexian (FXIa inhibitor)	Secondary prevention of ischemic stroke
Darolutamide (ODM-201, AR antagonist)	Hormone-sensitive metastatic prostate cancer
Darolutamide (ODM-201, AR antagonist)/ADT without chemotherapy	Adjuvant treatment for localized prostate cancer with very high risk of recurrence
Darolutamide (ODM-201, AR antagonist)/ADT	Hormone-sensitive prostate cancer in patients with a high risk of biochemical recurrence (BCR)
Elinzanetant (neurokinin 1,3 receptor antagonist)	Vasomotor symptoms associated with menopause
Finerenone (MR antagonist)	Heart failure with mid-range or preserved ejection fraction
Finerenone (MR antagonist)	Non-diabetic chronic kidney disease
Gadoquatrane (MRI contrast agent)	Magnetic resonance imaging
Vericiguat (sGC stimulator)[2]	Stable heart failure with reduced ejection fraction (HFrEF)

As of January 31, 2024
[1] In collaboration with Regeneron Pharmaceuticals, Inc., United States
[2] In collaboration with Merck & Co., Inc., United States
The nature of drug discovery and development is such that not all compounds can be expected to meet the predefined project goals. It is possible that any or all of the projects listed above may have to be discontinued due to scientific and/or commercial reasons and will not result in commercialized products. It is also possible that the requisite US Food and Drug Administration (FDA), European Medicines Agency (EMA) or other regulatory approvals will not be granted for these compounds. Moreover, we regularly review our research and development pipeline so that we can give priority to advancing the most promising pharmaceutical projects.

The following material developments occurred in 2023 and early 2024:

Asundexian

// In May, the US Food and Drug Administration (FDA) granted Fast Track Designation for our investigational drug asundexian as a potential treatment to prevent stroke and systemic embolism in patients with atrial fibrillation. This was the second Fast Track Designation for the oral Factor XIa (FXIa) inhibitor: The US FDA granted Fast Track Designation for the investigation of asundexian for prevention of stroke in patients after an ischemic stroke (non-cardioembolic ischemic stroke prevention) in January 2022. Fast Track Designation is intended to facilitate the development and expedite the review of drug candidates to treat serious medical conditions and address unmet medical needs.

// In November, we decided not to initiate Phase III development of asundexian in patients with an acute myocardial infarction.

// Also in November, we announced the decision to stop the Phase III study, OCEANIC-AF, investigating asundexian compared to apixaban (a direct oral anticoagulant) in patients with atrial fibrillation at risk for stroke. This decision was based on the recommendation of the study’s Independent Data Monitoring Committee (IDMC) as part of ongoing surveillance which showed asundexian 50 mg was not as effective as the FXa comparator in stroke prevention in atrial fibrillation (SPAF).

// The IDMC recommends continuing the OCEANIC-STROKE Phase III study as planned.

Aflibercept

- // In May, we initiated the Phase III QUASAR study, designed to evaluate the efficacy and safety of aflibercept 8 mg dosed at extended treatment intervals compared to the standard of care, Eylea™ (aflibercept 2 mg), in macular edema secondary to retinal vein occlusion (RVO).

Darolutamide

- // In March, we further expanded the global clinical development program for darolutamide in prostate cancer with the new Phase III clinical study ARASTEP. This study is investigating the efficacy of darolutamide plus androgen deprivation therapy (ADT) versus ADT alone in hormone-sensitive prostate cancer in patients with high-risk biochemical recurrence (BCR) who have no evidence of metastatic disease by conventional imaging and a positive PSMA PET/CT at baseline.

Elinzanetant

- // In January 2024, we announced positive top-line results of the pivotal Phase III OASIS 1 and 2 studies investigating the efficacy and safety of elinzanetant versus placebo in women with vasomotor symptoms (VMS, also known as hot flashes) associated with menopause. Elinzanetant successfully met all four primary endpoints in both studies, demonstrating statistically significant reductions in the frequency and severity of moderate to severe VMS from baseline to week 4 and 12 compared to placebo. Both studies also achieved all three key secondary endpoints, showing a statistically significant reduction in the frequency of VMS from baseline to week 1, as well as statistically significant improvements in sleep disturbances and menopause-related quality of life compared to placebo. The safety profile observed in the OASIS 1 and 2 studies is overall consistent with previously published data on elinzanetant.
- // Likewise in January 2024, we announced the expansion of the ongoing clinical development program for elinzanetant with the start of NIRVANA, a new Phase II study to evaluate the efficacy and safety of elinzanetant in women with sleep disturbances associated with menopause (SDM).

Gadoquatrane

- // In June, we announced the start of the Phase III clinical development program QUANTI with gadoquatrane, a next-generation gadolinium-based contrast agent for magnetic resonance imaging (MRI) which has the potential to enable a substantially lower clinical gadolinium dose for patients. The program aims to evaluate the efficacy and safety of the development candidate in contrast-enhanced MRI in two multinational Phase III studies and one pediatric study across all body regions and all ages.

Adrenomedullin Pegol

- // In May, we decided not to pursue further development activities for the Phase II program Adrenomedullin Pegol (PEG-ADM), developed for the treatment of acute respiratory distress syndrome, for scientific reasons.

BDKRB1 receptor antagonist

- // In March, we decided not to further pursue the development of our BDKRB1 receptor antagonist based on the Phase IIa results in the indication neuropathic pain.

Runcaciguat

// In April, we decided to discontinue further development of runcaciguat, a soluble guanylate cyclase (sGC) activator in Phase II clinical development, in the indication chronic kidney disease (CKD). We will continue the sGC activator/CKD development program with the oral sGC activator BAY3283142, a follow-up compound to runcaciguat which shows an improved PK/PD profile (pharmacokinetic/pharmacodynamic) and is currently completing Phase I clinical development.

Copanlisib (PI3K inhibitor) + chemotherapy combination

// In November, following discussions with the US Food and Drug Administration (FDA), we decided to voluntarily withdraw our Aliqopa™ (copanlisib) US New Drug Application for adult patients with relapsed follicular lymphoma (FL). The reason for the withdrawal was that copanlisib had not confirmed its clinical benefit in the CHRONOS-4 study requested by the FDA.

Filings and approvals

The most important drug candidates currently in the approval process are:

A 1.3/7

Main Products Submitted for Approval

Project	Region	Indication
Aflibercept 8mg (VEGF inhibitor)[1]	China	Neovascular age-related macular degeneration (nAMD)

As of January 31, 2024

[1] In collaboration with Regeneron Pharmaceuticals, Inc., United States

Finerenone

// In May, the Chinese National Medical Products Administration granted approval for a label update to extend the indication of Kerendia™ to early stages of chronic kidney disease associated with type 2 diabetes based on findings from the Phase III FIGARO-DKD cardiovascular outcomes study.

Aflibercept

// In May, we submitted an application to the Center for Drug Evaluation (CDE) of the Chinese National Medical Products Administration seeking approval of aflibercept 8 mg for the treatment of neovascular (wet) age-related macular degeneration (nAMD).

// In January 2024, the European Commission granted marketing authorization in the European Union for Eylea™ 8 mg (aflibercept 8 mg) for the treatment of neovascular (wet) age-related macular degeneration (nAMD) and diabetic macular edema (DME). Eylea™ 8 mg is approved for extended treatment intervals of up to four months following three initial monthly doses. In patients with stable visual outcomes, the treatment intervals may be extended to up to five months. Eylea™ 8 mg is the only treatment in the EU that is approved for extended treatment intervals of up to five months in nAMD and DME.

// Also in January 2024, the Japanese Ministry of Health, Labour and Welfare (MHLW) granted market authorization for Eylea™ 8 mg (aflibercept 8 mg) for the treatment of neovascular (wet) age-related macular degeneration (nAMD) and diabetic macular edema (DME) in Japan.

Darolutamide

// In February, we received approval in Japan for an additional indication for our cancer drug Nubeqa™ in patients with metastatic hormone-sensitive prostate cancer (mHSPC). Approval for this label extension was then also granted by the European Commission and the Chinese regulatory authorities in March.

Calantic™ Digital Solutions

// In February, we received approval in Japan for Calantic Viewer, which is the regulatory-relevant part of the Calantic™ Digital Solutions digital platform. The platform offers access to AI-enabled and digital applications for radiological imaging.

// In July, Calantic™ Digital Solutions was launched in Australia.

Ultravist™

// In May, our Ultravist™-300 and -370 contrast agent was approved in the United States for use in contrast-enhanced mammography, an imaging procedure with growing potential that combines digital mammography with the administration of an iodinated contrast agent. The product was approved for this indication in the European Union in January 2023.

Patents

The following table shows the expiration dates for our most significant Pharmaceuticals patents:

A 1.3/8

Pharmaceuticals Patent Expiration Dates

Products											Market
	Germany	France	Italy	Switzer-land	Spain	UK	China	Japan	Brazil	Canada	USA
Adempas™											
Active ingredient	2028	2028	2028	2028	2028	2028	2023	2027–2028[d]	2023	2023	2026
Eylea™											
Active ingredient	2025[h]	2025[g]	2025[h]	2025[g]	2025[h]	2025[h]	–	2021–2025[d]	–	–	–
Jivi™											
Active ingredient	2030[e, g]	2031[h]	2031[h]	2030[e, g]	2031[h]	2031[e, h]	2025	2027[e]	2025	2027[e]	2025[a]
Kerendia™											
Active ingredient	2033[e]	2033[e]	2033	2033	2033[e]	2028[a]	2028[a]	2033[e]	2028	2028[f]	2028[a]
Nexavar™											
Active ingredient	–	–	–	–	–	–	–	2021–2025[d]	–	–	–
Nubeqa™											
Active ingredient	2035	2035	2035	2035[e]	2035	2035[e]	2030	2035	2030	2032	2033[e]
Stivarga™											
Active ingredient	2028	2028	2028	2028	2028	2028	2024	2026[d]	2024	2024	2031
Verquvo™											
Active ingredient	2031[a]	2036	2036	2036	2036	2031[a]	2031[a]	2036[e]	2031[b]	2033[e]	2031[a]
Vitrakvi™											
Active ingredient	2034	2034	2034	2034	2034	2029[a]	2029[a]	2034	2029	2031	2029[a]
Xarelto™											
Active ingredient	2024[h]	2024[h]	2024[h]	2024[h]	2024[h]	2024[h]	–	2022–2025[d]	–	–	2025[i]
Xofigo™											
Use	2024	2024	2024	2024	2024	2024	–	–	–	–	–

[a] Current expiration date; patent term extension applied for
[b] Patent application pending
[c] Patent term revised (not applicable in 2023)
[d] Application-specific patent term extension(s)
[e] Patent term extension granted
[f] Current expiration date; patent term extension will be applied for punctually
[g] Pediatric SPC extension applied for
[h] Pediatric SPC extension granted
[i] Including six-month period of pediatric exclusivity granted by the regulatory authority following patent expiration in 2024

In addition to the information in the table, it should be noted that in Europe our Xarelto™ 10, 15 and 20 mg tablets are protected by a patent granted by the European Patent Office for once-daily dosing until 2026. This patent has been successfully defended at European level but is being attacked again at the national level in a number of countries. We are confident that we will be able to ward off such attacks. In the case of such secondary patents, there is also the risk of an attempt to circumvent them. However, we will take vigorous action against any infringement of this patent.

In the United States, our Xarelto™ 10, 15 and 20 mg tablets are also protected by a patent for once-daily dosing beyond 2025. There have already been patent law disputes that have been settled through settlements, including with Unichem, Inc. and Unichem Pharmaceuticals (USA), Inc. (collectively "Unichem"). According to the settlement with Unichem, Unichem will be licensed under the relevant patents to market a generic version of Xarelto™ 10, 15 and 20 mg tablets from 2027 or earlier in certain circumstances, which we do not expect at this time. In the United States, as in Europe, there is a risk of attempts to circumvent and attacks on this patent by previously uninvolved competitors from 2025 onwards.

External innovation

We achieved further progress in the area of external innovation in 2023:

- // In March, BlueRock announced a collaboration with US companies Rune Labs, Inc. and Emerald Innovations, Inc., focused on integrating wearable and invisible contactless digital health technologies in a clinical trial in Parkinson's disease.
- // In May, we entered into a collaboration with Bicycle Therapeutics plc, United Kingdom, in the field of novel targeted radionuclide therapies in oncology.
- // Also in May, we inaugurated Bayer Co.Lab Cambridge, an incubator in Cambridge, Massachusetts, United States, that specializes in cell and gene therapy. The aim is to offer startup entrepreneurs access to our enterprise-wide expertise and state-of-the art laboratory and office space.
- // In June, we announced the acquisition of an exclusive license from Cedilla Therapeutics, Inc., United States, in the field of precision oncology.
- // Also in June, we announced a collaboration with Acuitas Therapeutics, Inc., Canada, in the area of lipid nanoparticle technology, to strengthen our gene editing programs.
- // In July, we announced the extension of our partnership with Peking University (PKU) in Beijing, China, in the area of basic pharmaceutical research.
- // Also in July, we announced a collaboration with the Swiss Tropical and Public Health Institute in the clinical development of the compound emodepside for the treatment of infection with soil-transmitted helminths.
- // In August, BlueRock announced a collaboration and option agreement with US company bit.bio Ltd. for the discovery and manufacture of regulatory T cells for use in creating therapeutics.
- // In September, we announced a partnership with Hologic, Inc., United States, in the field of contrast-enhanced-mammography solutions to improve diagnostic imaging for the detection of breast cancer.
- // In October, we launched a collaboration with Twist Bioscience Corporation, United States, centering around the research and development of antibody-based pharmaceuticals.
- // In November, we announced the expansion of the Bayer Co.Lab incubator network to Kobe, Japan, and Shanghai, China.
- // Also in November, we announced a collaboration agreement with CrossBay Medical Inc., United States, that will allow the development and production of an inserter for our portfolio of hormonal intrauterine systems.

The following table provides an overview of additional significant partnerships and collaborations that were ongoing or newly formed in 2023:

A 1.3/9

Main Collaboration and Licensing Partners

Partner	Collaboration objective
Acuitas Therapeutics, Inc.	Collaboration in the field of lipid nanoparticle technology to strengthen our gene editing programs
Arvinas Inc.	Research collaboration in the field of life sciences using novel PROTAC™ (proteolysis-targeting chimeras) technology from Arvinas to develop new pharmaceuticals to treat cardiovascular, oncological and gynecological diseases
Bill & Melinda Gates Foundation	Grant agreement to advance innovations in the field of non-hormonal contraception
bit.bio Ltd.	Collaboration and option agreement for BlueRock for the discovery and manufacture of regulatory T cell-based therapies
Broad Institute	Strategic partnership to research and develop new therapeutic options in the fields of cardiovascular medicine and oncology, and establishment and operation of a joint cardiology research laboratory
CrossBay Medical Inc.	Development and option to license agreement that allows single-handed inserter to be developed and combined with our portfolio of hormonal intrauterine systems
Daré Bioscience, Inc.	License agreement for US commercial rights to hormone-free contraceptive Ovaprene™ in the future
German Cancer Research Center (DKFZ)	Strategic partnership to research and develop new therapeutic options in oncology, especially in immunotherapy
Dewpoint Therapeutics, Inc.	Option, research and license agreement for the development of new treatments for cardiovascular and gynecological diseases, with the partnership leveraging Dewpoint's proprietary platform for biomolecular condensates and Bayer's compound library
Editas Medicine, Inc.	License agreement to use Editas' CRISPR genome editing technologies in support of BlueRock's portfolio in neurology, cardiology, and immunology
Foundation Medicine, Inc.	Collaboration for the development and global commercialization of therapy-accompanying diagnostic tests, also known as companion diagnostics (CDx), based on next-generation sequencing for new cancer drugs developed by Bayer
Fujifilm Cellular Dynamics, Inc. & Opsis Therapeutics, LLC	Collaboration and option agreement for BlueRock focused on discovering and developing iPSC therapies for the treatment of ocular diseases, including inherited retinal disorders and dry AMD
Google Cloud EMEA Limited	Collaboration to accelerate quantum chemistry calculations for protein-ligand interaction modelling using Google Cloud's Tensor Processing Units (TPUs)
Hologic, Inc.	Partnership in the field of breast cancer diagnostic imaging in contrast-enhanced mammography
Janssen Research & Development, LLC of Johnson & Johnson	Development and marketing of Xarelto™ (rivaroxaban) for the treatment of coagulation disorders
Life Technologies Corporation	Collaboration for the development and global commercialization of therapy-accompanying diagnostic tests, also known as companion diagnostics (CDx), based on next-generation sequencing for new cancer drugs developed by Bayer
Mammoth Biosciences, Inc.	Strategic partnership in the field of gene editing, focusing on the development of in vivo therapies with target structures in the liver, and non-exclusive collaboration in the field of ex vivo gene editing
Merck & Co., Inc.	Development and marketing collaboration in the field of soluble guanylate cyclase (sGC) modulation
Orion Corporation	Development and marketing of darolutamide (previously ODM-201) for the treatment of patients with prostate cancer
Peking University	Research collaboration and establishment of a research center for joint projects
ReCode Therapeutics, Inc.	Strategic research collaboration for AskBio to jointly develop a single vector gene editing platform for novel precision genetic medicines
Recursion Pharmaceuticals, Inc.	Strategic partnership to conduct research into new cancer treatments
Regeneron Pharmaceuticals, Inc.	Cooperation and license agreement and joint development and marketing (outside the United States) of Eylea™ 2 mg and Eylea™ 8 mg
Tavros Therapeutics, Inc.	Strategic research collaboration to identify and optimize targeted oncology programs for Vividion
Tsinghua University	Research collaboration and establishment of a research center for joint projects
Vanderbilt University Medical Center	Strategic research alliance to identify and develop new potential active ingredients for the treatment of kidney diseases

Consumer Health

At Consumer Health, we concentrate on developing new nonprescription (OTC) products and solutions that improve consumer health and well-being. We maintain a global network of research and development facilities, with major sites in the United States, France, Switzerland, United Kingdom, Germany and China at which approximately 740 employees (2022: 700 employees) work. We are active in the areas of pain, cardiovascular risk prevention, dermatology, nutritional supplements, digestive health, allergy and cough & cold.

Our focus lies on product developments that are insight-driven and aligned to the unmet needs of consumers. Our innovations range from new product development, improved formulations, digital tools, devices and packaging to new claims and consumer health education tools. In addition, we developed around 50 new consumer-validated product innovations in 2023. We are strengthening Consumer Health's innovation pipeline with around 170 active projects that we are developing across all our categories. These include core and adjacent innovations as well as transformational innovations that could significantly advance self-care products for consumers worldwide.[10]

A further important part of our innovation strategy is transitioning current prescription medicines that are suitable for self-care to over-the-counter status (Rx-to-OTC switches).

We also introduced a number of product line extensions for existing brands in various countries in 2023, for example:

In North America, we partnered with UK digital health company Huma Therapeutics Limited to launch the Bayer Aspirin Heart Risk Assessment in the US market. This online tool quickly assesses an individual's risk factors for developing cardiovascular disease over the next 10 years, and the results can be shared with a healthcare professional as part of ongoing health management. The digital tool was developed using UK Biobank data with over 450,000 participants. It only takes five minutes and does not require invasive measurements which are a barrier for patients to understand their heart health risk.

In Europe/Middle East/Africa, we launched CanesFlora+ in France ("Hydralin IntimiFlor"), a probiotic food supplement with clinical evidence to support women's intimate health. This product expands the Canesten™ line and enables us to fulfill consumers' needs and reach wider target groups. The probiotic solution serves as a vital support system in maintaining the microbiome balance and preventing recurring infections like bacterial vaginosis and thrush.

In the Asia/Pacific region, we expanded the Elevit™ brand in China from prenatal to infant with the launch of two new supplements: DHA for healthy brain and eye development, and a probiotic powder to support gut health. These additions are critical to Elevit™'s mission of delivering nutrition for the healthiest start in the first 1,000 days of life.

[10] Core innovation means optimizing existing products for existing customers. Adjacent innovation refers to the extension of existing brands to new market segments, i.e. new products and assets are added. Transformational innovation refers to achieving breakthroughs and creating new markets that do not yet exist.

1.4 Commitment to Employees

Bayer's business success is largely built on the knowledge and commitment of our workforce. As an employer, we offer our employees attractive conditions and wide-ranging individual development opportunities. Alongside professional training, we focus on promoting a dialogue- and feedback-oriented culture based on trust, intentional inclusion, and respect for diversity and equality of opportunity, which is also summarized in our corporate policy entitled “Fairness and Respect at Work.” Our employees worldwide are trained to comply with these guidelines. We measure the engagement and satisfaction of our employees through systematic feedback discussions and regular employee surveys. Responsibility for the human resources strategy of the Bayer Group lies with the Board of Management, supported by Bayer's Human Resources enabling function. The strategy is implemented globally within the scope of binding policies.

For more than 10 years, Bayer's LIFE values (Leadership, Integrity, Flexibility and Efficiency) have guided us in our activities. These stand for our values and leadership principles. Attributes define each value's practical meaning and behaviors, laying the foundation for how employees work at Bayer.

Employees at all Bayer sites around the world have the right to elect their own representatives. In 2023, the working conditions for around 52% (2022: 53%) of our employees worldwide were governed by collective or company agreements.

Employee data

On December 31, 2023, we employed 99,723 people (2022: 101,369) worldwide. In Germany, we had 22,172 (2022: 22,569) employees, representing 22.2% of the total Group workforce (2022: 22.3%).

In 2023, the Bayer Group hired 9,247 new employees (accounting for 9.3% of our workforce). On the reporting date, our employees had worked for the Bayer Group for an average of 11 years (2022: 11). Our workforce includes only a small number of employees on temporary contracts (2.8%).

Restructuring measures

We act with social responsibility when changes and restructuring measures are necessary. In all countries, we aim to minimize the impact on employees and find mutually agreeable solutions in cases where job reductions are necessary. This is also the case in Germany, where agreements are in place with employee representatives that fundamentally rule out dismissals for operational reasons in the intercompany personnel network of Bayer AG in the country until the end of 2026.

With regard to the program to accelerate our transformation which we announced in 2020, we anticipate that all of the major restructuring measures will be implemented by the end of 2024. Flexible models with attractive conditions have been offered to employees of various age groups.

Introduction of a new operating model

We are currently working on making our organization even more closely aligned to our mission “Health for all, Hunger for none.” To this end, we are introducing a new operating model called Dynamic Shared Ownership (DSO). The new system is more strongly oriented toward customer needs and will empower our teams to meet these needs more effectively going forward and deploy our resources even more efficiently. Our objective is for our employees to work in small, self-managed teams. Activities are prioritized on the basis of their contribution to the mission, and progress is measured in short, 90-day cycles, giving us much greater agility. This enables us to eliminate coordination work and reduce management layers.

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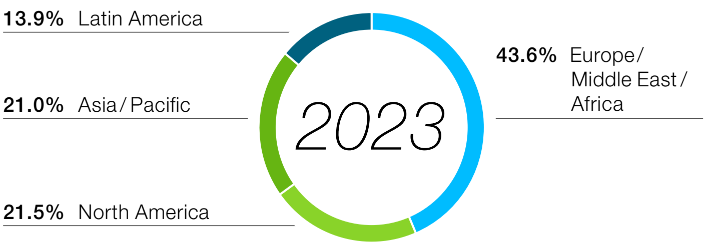
Employee Data

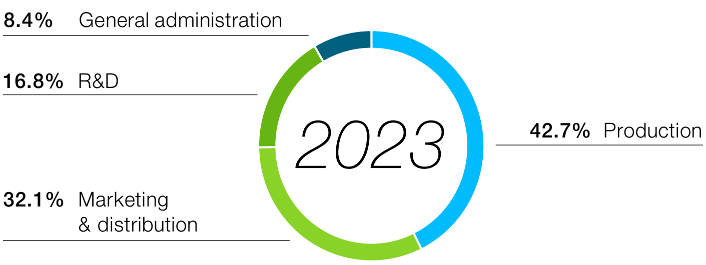
	2022	2023	Change (%)
Total	**101,369**	**99,723**	**–1.6%**

by Region



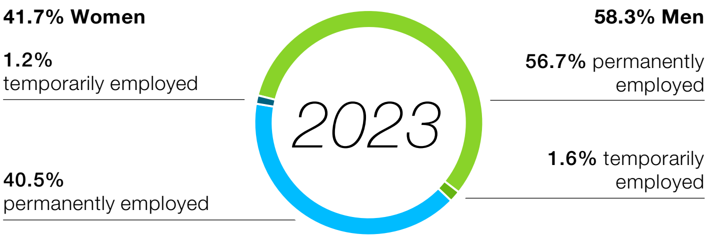
	2022	2023	Change (%)
Europe/Middle East/Africa	44,181	43,458	–1.6%
North America	21,090	21,407	+1.5%
Asia/Pacific	22,094	20,960	–5.1%
Latin America	14,004	13,898	–0.8%

by Function



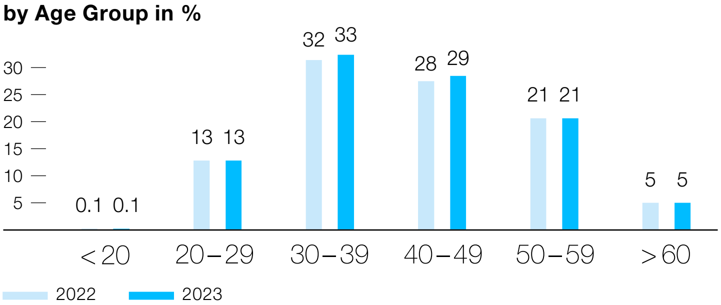
	2022	2023	Change (%)
Production	42,548	42,535	0.0%
Marketing & distribution	34,477	32,000	–7.2%
R&D	16,211	16,796	+3.6%
General administration	8,132	8,392	+3.2%

by Gender



	Women		Men	
	2022	2023	2022	2023
Europe/Middle East/Africa	19,464	18,981	24,717	24,477
North America	8,138	8,270	12,952	13,137
Asia/Pacific	9,047	8,784	13,047	12,176
Latin America	5,479	5,527	8,525	8,371
Total	42,128	41,562	59,241	58,161

by Age Group in %



Fluctuation in %

%	Voluntary 2022	Voluntary 2023	Total 2022	Total 2023
Women	6.2	5.3	12.1	11.2
Men	5.7	5.2	12.2	11.4
Total	5.9	5.2	12.2	11.3

Number of employees in full-time equivalents (FTEs)

Employee compensation and variable pay

Our compensation system combines a basic salary reflecting performance and responsibility with elements based on the company's success, plus additional benefits that include stock participation programs. Members of upper management throughout the Bayer Group are invited to participate in Aspire, a uniform long-term compensation program based on the development of the share price. Adjustments based on continuous benchmarking make our compensation internationally competitive.

We provide attractive compensation for our active employees' work and contribute to the financial security of our present and former employees after their retirement. Retirement benefit plans are available to 79% (2022: 79%) of Bayer employees worldwide to complement national pension systems.

A 1.4/2

Personnel Expenses and Pension Obligations

€ million	2022	2023
Personnel expenses	12,619	10,691
of which pension expenses	999	779
Pension obligations[1]	19,139	19,383
Pension benefits paid	1,125	1,122

[1] Present value of defined benefit obligations for pensions and other post-employment benefits as of December 31

Personnel expenses declined by €1,928 million to €10,691 million in 2023 (2022: €12,619 million). This was mainly due to lower provisions for variable compensation under the Group-wide short-term incentive (STI) program.

Our compensation principles consist of providing fair compensation to all employees. As standard practice, we pay at least a "living wage," which is annually reviewed and defined worldwide by the nonprofit organization Business for Social Responsibility, and compensate employees on both permanent and temporary employment contracts in excess of the statutory minimum wage in many of the countries in which we operate.

Vocational and ongoing training

To meet our need for skilled employees, we hire apprentices in Germany in more than 28 different occupations. In total, we had 1,287 apprentices in 2023. We also offer trainee programs in various areas for those embarking on a career, and internships for students around the world.

A wide range of ongoing training opportunities is available to our employees in the form of both e-learning and face-to-face training. Each employee engaged in an average of around 26 hours of ongoing training in 2023.

Work-life integration

We help our employees balance their work and private lives, and provide various programs to support them, including flexible working arrangements for how, when and where they work.

In addition, we offer employees the opportunity to take parental leave, while also supporting them with childcare and the care of close relatives within the scope of social and legal guidelines. In many countries, our commitment in this area goes beyond the statutory requirements.

In 2023, part-time employees accounted for around 6% of our workforce (of which 51% were women and 49% men), primarily in Europe.

Health promotion

Around 97% (2022: 97%) of our employees worldwide either have statutory/private health insurance or can obtain health insurance through the company.

In 2023, we continued our BeWell@Bayer activities, which are aimed at promoting employee health and quality of life. This global framework concept expands the core aspect of health into a comprehensive approach, targets further health improvements in the daily work environment and is designed to help employees balance their professional and private lives. Health check-ups are an integral part of our health promotion initiatives.

Diversity, Equity and Inclusion (DE&I)[11]

Our DE&I aspiration is to create an inclusive and non-discriminatory work environment in which all employees are respected and everybody can be their authentic selves. To this end, we promote DE&I in all business areas and regions.

We attach great importance to equal pay for men and women in comparable roles with similar levels of experience. The initial findings of a global review indicate minor gender-specific differences of less than 2%. Further analysis will be conducted in 2024 to determine whether the identified differences in pay are due to factors other than gender, with targeted adjustment measures to follow.

Our Business Resource Groups (BRG) are part of our DE&I strategy. These are groups of volunteers, supported by the company, who work together to promote cultural diversity, equity and awareness for DE&I. Each global BRG is sponsored by a member of the Board of Management and an Executive Sponsor from the business. Their role is to act as mentors and provide guidance to ensure that critical DE&I objectives are achieved. In return, they receive insights from diverse perspectives and in this way can help shape how we engage with customers, community and our culture.

In addition, we are integrating DE&I into core people processes such as talent acquisition and talent management.

With 41,676 women employed at Bayer, the proportion of women in the workforce remained almost constant at 42.1% (2022: 42.0%[12]). We are specifically targeting a greater gender balance in management. The proportion of women in management in 2023 was 43.6% (2022: 43.2%[13]). The proportion of women in top management, which encompasses the highest levels of management, including the Board of Management, increased again compared to previous years. At the end of 2023, it was made up of 31.8% women (2022: 27.9%[14]) and 68.2% men (2022: 72.1%[15]). Top management comprises 556 people in total.

Our top management currently comprises 40 nationalities (2022: 37), with around 69% (2022: 67%) of its members working in their native country. Information on diversity in our Board of Management and our Supervisory Board can be found in our Corporate Governance Report.

People with disabilities are an integral part of our workforce. Based on voluntary statements by employees, we employ around 2,130 people with disabilities, 45% of whom are women and 55% men. That represents around 2.4% of our workforce in countries where disabilities are tracked.

In 2021, we announced commitments for gender balance throughout the Bayer Group. We aspire to increase the proportion of women on the entire top management level year by year to 33% by 2025. In addition, we intend to increase the average proportion of women at all management levels to 50% by 2025, and beyond. We then aim to increase the overall proportion of women in top management to 50% by 2030 as well.

We have also defined additional commitments for further dimensions of diversity for 2025 and 2030, covering generations, nationality, career experience, LGBTQ+ and people with disabilities, among others. Further aspects such as ethnic background are integrated into our commitments for our regions and country organizations.

[11] Bayer generally reports its KPIs for Diversity, Equity & Inclusion (DE&I) in terms of headcount (HC). As of 2023, key figures in the DE&I chapters of the annual and sustainability reports are therefore based on HC as well, in order to cover the individual characteristics of our employees independent of their working hours. To ensure comparability, we are presenting the 2022 figures in this chapter in HC as well. Key figures in other chapters may differ from those in this chapter as they are still based on full-time equivalents (FTE).
[12] 2022 figure restated
[13] 2022 figure restated
[14] 2022 figure restated
[15] 2022 figure restated

1.5 Procurement and Supplier Management

We have an impact on society and the environment through our procurement activities and supplier relationships. Not only economic but also ethical, social and ecological principles are therefore anchored in our Procurement Policy, which is binding for all employees worldwide.

As a cross-divisional enabling function, Procurement leverages synergies by bundling know-how and procurement spend. In 2023, we had a total of around 86 thousand (2022: 91 thousand) suppliers. Our procurement spend was €22.7 billion (2022: €23.3 billion).

Our main direct procurement materials include active ingredients, raw materials, intermediates, finished products and seeds. Technical goods and services, research and development (R&D) resources, and marketing and IT services are important components of our indirect procurement portfolio.

Procurement operates according to advanced procurement and supplier management processes. Long-term contracts and dedicated supplier management for strategically important goods and services are key elements here. They serve to minimize procurement-specific risks such as supply disruptions or significant price fluctuations, while also helping to safeguard our company's competitiveness and ensure smooth production processes.

To meet our climate protection targets, Procurement takes and supports measures to reduce greenhouse gas (GHG) emissions in our supply chain (Scope 3). We advanced our activities from 2022 and initiated new ones in 2023. We continue to lead a dedicated "GHG Scope 3 Emissions" workstream in the Together for Sustainability (TfS) initiative, which in a pilot project demonstrated the scalability of product carbon footprint (PCF) data exchange, and have also been working with the World Business Council for Sustainable Development and CDP (formerly the Carbon Disclosure Project) Supply Chain.

In 2023, we focused our efforts among other things on organizing training sessions on human rights in the supply chain for our procurement employees and suppliers, as well as on enhancing our procurement processes in order to comply with the German Supply Chain Due Diligence Act (GSCDDA).

Likewise in 2023, we introduced the Bayer Supplier Inclusion & Diversity Program, which is designed to ensure that there are consistent and equitable opportunities for small and diverse-owned suppliers throughout the global supply chain.

Our global teams have continued to take extensive action to increase the resilience of our supply chain and mitigate the impact of the war in Ukraine.

In 2023, we signed a long-term structured renewable energy credit (REC) purchase agreement with Cat Creek Energy (CCE), a renewable energy Independent Power Producer, to significantly increase the proportion of renewable energy used in our own production facilities.

Sustainability in the supply chain

Clear sustainability criteria and standards are in place for our supply chain on both a global and regional level. With the goal of improving sustainable practices in our supply chain, we operate a Group-wide four-step management process that comprises the following elements: raising awareness, supplier nomination, supplier evaluation and supplier development.

Our sustainability requirements are established in the Bayer Supplier Code of Conduct, which is based on our Bayer Human Rights Policy and the principles of the UN Global Compact. This code serves as the basis for selecting and evaluating our suppliers and is integrated into electronic ordering systems throughout the Bayer Group. Furthermore, our standard supply contracts contain a clause that authorizes us to verify suppliers' compliance with our sustainability requirements. The Bayer Supplier Code of Conduct Guidance was updated in 2023 and also contains GSCDDA-specific requirements.

We verify suppliers' observance of the code requirements with the aid of online assessments or audits. We evaluate suppliers of relevant importance and suppliers with a high sustainability risk (in terms of both country and category risks). We also consider in our processes existing evaluations performed within the scope of the two sustainability industry initiatives we are a part of. In total, our service provider EcoVadis assessed 1,118 (2022: 1,145) suppliers on our behalf in 2023. Also in 2023, we arranged for 134 (2022: 113) of our suppliers to be audited by internal and/or external, independent auditors.

If critical results are recorded as a result of a serious violation or several major shortcomings being identified during a supplier's sustainability performance evaluation, specific improvement measures are then jointly defined. We monitor the implementation of these activities through re-assessments or follow-up audits. We reserve the right to terminate a supplier relationship if insufficient improvements are observed during re-evaluations. In 2023, we were not prompted to end any supplier relationship solely due to sustainability performance.

1.6 Sustainability Management

Sustainability is one of our strategic levers. That means that our business activities are systematically geared toward generating a positive impact for people and the planet. Effective sustainability management throughout the organization is ensured by clearly defined roles and responsibilities. The Chairman of the Board of Management (CEO), in his capacity as Chief Sustainability Officer (CSO), and the entire Board of Management hold first-level responsibility for this strategy. An external Sustainability Council advises the Board of Management on all matters relating to sustainability and offers a critical, constructive perspective. In addition, we have a Human Rights Officer who oversees the management of risks relating to human rights and provides updates to the Board of Management. In 2022, we established a separate Supervisory Board committee for the areas of environmental protection, social affairs and corporate governance (ESG Committee). The committee oversees and advises management on integrating sustainability into the business strategy and corporate governance, as well as on sustainability-related opportunities and risks, including potential consequences for the company's reputation. In addition, the Public Affairs, Science and Sustainability; Health, Safety, Environment (PASS & HSE) enabling function supports the CSO and Board of Management in identifying risks and opportunities, developing strategies and defining sustainability management targets and guidelines. It also provides governance for sustainability topics. Sustainability management is integrated into the existing management and governance structures and the core processes of the entire organization.

Our commitment to the UN Global Compact and the Responsible Care™ initiative of the chemical industry and our involvement in the World Business Council for Sustainable Development (WBCSD) underline our profile as a company that acts sustainably.

Materiality analysis and stakeholder dialogue

We ascertain the expectations and requirements of our various stakeholders using a materiality analysis, which surveys external stakeholders and managerial employees from various areas of the company throughout the world. The results of this reveal the latest developments along with sustainability-related opportunities and risks. Areas of activity with a very high level of relevance from an internal and external perspective are accounted for in our strategic lever of sustainability and reflected in our nonfinancial Group targets. The current materiality analysis covers the following key areas of activity:

// Innovation
// Access to healthcare
// Sustainable food supply
// Product stewardship
// Climate and environmental protection
// Business ethics

We are currently in the preparation phase with respect to the disclosures to be made in accordance with the EU Corporate Sustainability Reporting Directive (CSRD), which involves updating our materiality analysis, taking into account the requirements of the European Sustainability Reporting Standards (ESRS).

As part of our stakeholder engagement process, which is underpinned by a dedicated guideline, we approach key social and political players and seek dialogue from the outset in strategic decision-making processes regarding new projects such as investment projects and launches of new products.

Social engagement

We are committed to supporting science, society and the common good. Like our business activities, our social engagement is guided by our purpose “Science for a better life” and our mission “Health for all, Hunger for none.” Together with our network of partners and our employees, we support social projects around the world in the areas of health, nutrition and the environment and engage with communities to create long-lasting societal impact. As part of these endeavors, we increasingly support social innovation and social enterprises. Responding to disasters by providing humanitarian aid also plays a crucial role in our social commitment. Through our disaster relief programs, we support communities affected by natural disasters and public health crises.

In 2023, we provided around €52 million for social impact programs worldwide. This included products costing around €18 million that we donated to organizations in countries and communities in need. 66% of our (cash and product) contributions went to low- and middle-income countries. In 2023, we conducted projects worldwide with partner organizations, including the Bayer foundations (Bayer Foundation [focusing on the global south and life sciences], Bayer Fund [USA], Bayer Foundation India and Hans and Berthold Finkelstein Foundation [active in Germany, other European countries and Israel]), which generate an important impact for society in line with our mission and corporate purpose.

Our workforce is likewise personally involved in community volunteering. In 2018, for example, our employees founded the PROSI (Pro Social Initiatives) program, which brings together employees worldwide to engage in social volunteering. Building on the successes of PROSI, 2023 also saw the introduction of the Group’s “Corporate Volunteering” framework, which allows employees to spend at least one workday per year volunteering with social organizations. Germany implemented the concept in October – other countries will follow. Employees can use an online platform for volunteering to search for organizations and also propose projects themselves. Existing volunteer programs (e.g. in the United States) will be continued or combined under the “Corporate Volunteering” scheme.

The contributions we make – in the form of monetary, product or other in-kind donations – are governed by our global “Corporate Charitable Giving Procedure.” It establishes clear criteria for recipient eligibility and project selection, and also sets forth the strategy we follow to generate long-term impact for society in line with our sustainability goals. Our charitable contributions are recorded and approved centrally, which provides a transparent overview of our contributions to supporting social causes around the world.

Respect for human rights

Respecting human rights is fundamental to the way we operate. We have documented our stance in a globally binding corporate policy entitled the Bayer Human Rights Policy. In 2023, we further developed our corresponding strategy and updated our human rights policy. The position of Human Rights Officer has been in place in our organization since October 2022. This function is tasked with performing risk management oversight and providing the Board of Management with updates on human rights topics. The Board of Management received such updates on three occasions in 2023.

Human rights due diligence is a continuous process that we constantly adapt and improve. To specifically ensure respect for human rights in the value chain, we employ a due diligence approach based on the UN Guiding Principles on Business and Human Rights (UNGPs) and the OECD Guidelines for Multinational Enterprises. We take steps to ensure human rights are respected both within our own company and along our entire value chain. Corporate policies, processes, and management and monitoring systems are in place to govern the implementation of human rights standards. We offer special training programs to continuously enhance employees' awareness of the importance of human rights in their day-to-day activities. The "Respecting Human Rights at Bayer" basic training course is one such example. We also demand that our business partners, particularly our suppliers, fully respect human rights.

We are a founding member of the UN Global Compact and respect the Universal Declaration of Human Rights, the UN International Covenants on Civil and Political Rights and on Economic, Social and Cultural Rights, the UNGPs and a range of globally recognized declarations applicable to multinational corporations, including the OECD Guidelines for Multinational Enterprises, the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, and the core labor standards of the International Labour Organization (ILO).

As part of our risk management process, we conduct overarching and detailed risk analysis to examine the potentially adverse consequences our operating activities could have for human rights. See the Opportunity and Risk Report for the risk status identified for this area in 2023. We did not identify any potentially negative effects that were reportable under the CSR Directive Implementation Act.

1.7 Product Stewardship

For Bayer, product stewardship involves ensuring that our products satisfy the highest quality standards and are safe for people and the environment when used correctly. We respect the legal requirements and even go beyond them in various areas through voluntary commitments and internal standards. We have put in place suitable directives and management systems for the implementation of regulatory and voluntary product stewardship requirements that are steered by our Sustainability, Safety, Health & Environment (SSHE) enabling function and the quality functions of the divisions.

Assessment and testing of active ingredients and products

Our substances and finished products undergo extensive assessment and testing along the entire value chain. Based on these results, we develop measures to minimize health and environmental risks. Our divisions have quality management systems in place that are based on international industry-specific standards. By implementing a binding company-wide quality assurance system, we aim to guarantee high-quality, safe and effective products and services that satisfy all internal and external requirements and meet customer expectations. This helps to avoid customer complaints, product recalls and other problems. For all chemical substances, we compile safety data sheets targeting professional users. End consumer products contain appropriate information in their packaging, with one example being package inserts for pharmaceuticals. We also conduct environmental risk assessments and implement risk management measures after a product has been registered.

At **Crop Science**, we steer product stewardship through the strategy and sustainability function. As specified in a group regulation, we apply a life-cycle approach which follows internationally recognized standards such as the International Code of Conduct on Pesticide Management issued by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO), the guidelines of the crop protection association CropLife International, and the guidelines of the industry initiative Excellence Through Stewardship (ETS) for seeds and traits.

Every single R&D project must undergo a safety assessment based on our high internal product safety standards, which often go beyond local regulatory requirements. This assessment also takes into account local circumstances in relation to the combination of crops and countries, as well as application patterns. All of this is supplemented by our voluntary safety commitments: We have not marketed any crop protection products that are classified by the WHO as being highly toxic (WHO Tox Class I) since as early as 2012. In addition, since 2016 we have marketed only crop protection products with active ingredients that have a registration in at least one OECD country, and only new active ingredients for which an OECD data package has been compiled.

Furthermore, our customers are provided with comprehensive and transparent information on our products. Through a variety of extensive programs, we train farmers, seed treatment professionals, dealers and other users in the effective and safe handling and use of our products. This covers aspects such as the correct use of personal protective equipment (PPE) and the proper handling of empty containers. During the production, packaging, storage and transport phase, we rely on a globally applicable health, safety and environmental protection management system.

We aim to strengthen all stakeholders' confidence in our products through transparency. Details on our product stewardship and high internal product safety standards are publicly available on our website. In addition, we were one of the first companies in agriculture to make safety-relevant data on crop protection products and genetically modified seed publicly accessible. Summaries of scientific studies for 30 of our active ingredients submitted to the European Food Safety Authority (EFSA) in the context of registration procedures are available on our website. These reports include information on toxicological and ecotoxicological studies and investigations into the biodegradability of crop protection products. Also available are summaries of scientific studies on 16 traits of our genetically modified crops that were evaluated by US regulatory authorities. Complete study reports on our registration studies for the approval of our crop protection products and genetically modified crops are available on specific request.

In the **Pharmaceuticals** Division, we assess the medical benefit-risk profile of our pharmaceutical and medicinal products throughout their entire product life cycle. The efficacy, safety and tolerability of pharmaceuticals are already investigated in preclinical and Phase I to III clinical development studies. These results and the benefit-risk assessment are submitted to the relevant authorities during the pharmaceutical registration process. We continue to compile safety-relevant information in a dedicated database following market launch of the product.

Post-Authorization Safety Studies (PASS) are also conducted after approval. The results are entered into the PASS registry in compliance with EU pharmacovigilance legislation.

After proving the efficacy and safety of a nonprescription (OTC) medicinal product, **Consumer Health** receives marketing authorization from the relevant authorities. We continuously ensure the favorable benefit-risk profile of these products by conducting post-marketing surveillance and generating scientific evidence throughout the entire product life cycle. In addition to these OTC products, Consumer Health also provides consumers access to other self-care solutions, cosmetics, nutritional supplements and medical devices. We conduct ongoing monitoring and measurements to ensure safety, efficacy and compliance with regulatory requirements around the world. We also monitor ingredients across all product categories and act on any concerns that are identified to provide the best-quality products for our patients and consumers.

Animal welfare in active ingredient testing

Animal studies are legally required and essential from a scientific viewpoint for assessing the safety and efficacy of our products. Such studies must comply not only with legal requirements but also with Bayer's principles on animal welfare and animal studies. The latter also apply both to the research institutes we commission and to our suppliers, whose compliance with our animal welfare requirements we monitor regularly. We aim to minimize the use of study animals and to employ alternative methods whenever possible. In early drug research, Bayer continuously makes use of different in silico and in vitro processes that help reduce the number of animal studies; included in this are our activities with "organ-on-a-chip."

Environmental impact

Biodiversity

Agriculture can benefit significantly from species that provide and maintain important ecosystem services such as pollination and natural pest control and perform soil-related functions such as nutrient replenishment. At the same time, the very purpose of agriculture is to provide a safe and secure food supply for humans, which can lead to a loss or reduction of biodiversity, for example through land-use change, degradation or fragmentation of habitats. To foster production which minimizes the impact on the environment, we are investigating and developing cultivation systems that help achieve a better balance between productivity and the conservation of soil health and habitats. In many of our field trials, we evaluate how our solutions – in combination with practices such as no till, cover crops or wider crop rotation – help to improve soil health without compromising farmers' profitability. In addition, we have various cooperation projects involving the Bayer ForwardFarms and nature conservation experts where we research how a better balance could be achieved in various countries and regions.

We also support and encourage the development of integrated pest management (IPM) and pollinator management methods that conserve the abundance and diversity of beneficial insects, protect pollinators and reduce the use of pesticides or replace compounds with a less favorable environmental safety profile with modern, more environmentally friendly solutions. We therefore conduct comprehensive field trials under agronomic conditions in various crops around the globe with the objective of deriving recommendations regarding the best positioning of our products within an IPM system to protect pollinators and beneficials.

We promote the responsible use of natural resources, both complying with international and national legislation as well as respecting biodiversity. Our principles on biodiversity are set forth in a corporate policy and a separate position paper on this issue. In this, we express our commitment to the objectives of the United Nations Convention on Biological Diversity, which includes the fair and equitable sharing of the benefits arising from the use of genetic resources. We also have a supplementary corporate policy in place that is designed to ensure compliance with international and national legislation on access to genetic resources and the fair and equitable sharing of the benefits arising from the use of genetic resources. Through monetary and nonmonetary contributions to the establishment of new gene banks that serve to preserve the genetic diversity of crops, we help to facilitate the conservation and sustainable use of plant genetic resources. In addition, we participate in a variety of projects with public partners to enable improved local food crops and promote the build-up of capacities to breed better crops, while also supporting other global efforts to preserve biodiversity. Furthermore, we continually deploy plant breeding innovations that help improve the genetic diversity of crops, food security and ecological sustainability.

Biotechnology

We apply biotechnological methods in biopharmaceutical production (e.g., Kogenate™, Kovaltry™, Jivi™) and the development of innovative biopharmaceuticals, and cell and gene therapies. In addition, we apply biotech-based methods to seeds (e.g., SmartStax™ PRO with RNAi Technology corn, Intacta 2 Xtend™ soybeans, and Bollgard™ 3 with XtendFlex™ cotton). In plant breeding, we use a variety of methods, including conventional breeding approaches and genetic engineering. Genetically modified crops can help increase the sustainability of food production because they enable farmers to produce more food with less impact on natural resources.

For us, the safety of people and the environment is always the top priority in the use of biotechnology. In addition to meeting legal and regulatory requirements, we have specified the responsible use of genetic engineering and strict, globally applicable safety measures for handling biological substances in corresponding corporate policies.

The development and commercialization of genetically improved seeds are also subject to stringent laws and regulations. In addition, we have established internal processes to ensure the responsible use of biotechnologically manufactured products throughout their life cycle. Furthermore, our Crop Science Division maintained its membership in the Excellence Through Stewardship organization in 2023.

Trace substances in the environment

We are committed to preventing emissions of product residues (e.g., active ingredients and their degradation products) into the environment or, where these are unavoidable, to minimize the risks they harbor. We focus on all stages of the product cycle – from manufacturing to safe use and disposal.

At our production sites around the world, regulatory authorities and external assessors monitor compliance with wastewater thresholds. Internal experts also perform corresponding audits of the production sites at regular intervals. We take appropriate action in our production facilities to avoid or reduce emissions from production, such as the release of active ingredients into the environment. Alongside the regulatory standards, such action also comes in the form of our own, more far-reaching environmental standards, for instance as outlined in our corporate policies. We are also working to develop further effective risk minimization measures in various research projects.

With regard to the application of crop protection products, the potential environmental impact is investigated in ecotoxicological studies during development and prior to the official product approval process. The responsible authorities receive an extensive environmental risk assessment and can specify risk minimization measures as appropriate.

Environmental risk assessments are also conducted in Europe and the United States for the official approval of human pharmaceuticals.

1.8 Environmental Protection and Safety

We are working on ways to further reduce the environmental impact of our business activities and develop solutions that relieve the burden on the environment. Responsibility for this lies with the Sustainability, Safety, Health & Environment (SSHE) enabling function, which defines framework conditions in the form of corporate policies and other measures. We use management systems to control operational implementation in the divisions.

Energy consumption

Bayer’s total energy consumption decreased by 1.3% year on year to 35.0 petajoules in 2023 (2022: 35.5 petajoules). This includes both primary energy consumption, which mainly relates to fossil fuels, and secondary energy consumption. The decline was attributable to lower production volumes at our sites in Soda Springs, United States, and Antwerp, Belgium.

Energy efficiency reported as the ratio of energy consumed to external sales came in at 204 kWh/€ thousand in 2023, compared with 194 kWh/€ thousand in 2022.

Greenhouse gas emissions

We consider climate protection and the related reduction of greenhouse gas emissions to be a top priority. We have therefore set ourselves ambitious targets in this area, and these are explained in more detail in Chapter 1.2.1 Strategy and Targets.

The following table provides an overview of the development in 2023:

A 1.8/1

Greenhouse Gas Emissions

Million metric tons of CO_2 equivalents	2022	2023
Scope 1: Direct emissions[1]	1.91	1.89
Scope 2: Indirect emissions[2] according to the market-based method	1.12	1.11
Total greenhouse gas emissions according to the market-based method	**3.03**	**3.00**
Scope 3: Indirect emissions from our upstream and downstream value chains (by materiality)[3, 4, 7]	9.72	9.18
of which indirect emissions from our upstream value chain to attain the SBT[4, 5, 6, 7]	8.98	8.44

[1] Direct emissions result from our own power plants, vehicles, waste incineration plants and production facilities (Scope 1). In line with the GHG Protocol, we also report the direct emissions that arise through the generation of energy that we sell to other companies as a site service. Consequently, the figures for direct emissions of the Bayer Group are higher than the actual emissions resulting from Bayer's business activities alone. In 2023, 97.2% of direct greenhouse gas emissions were carbon dioxide emissions. Other greenhouse gases such as nitrous oxide, partially fluorinated hydrocarbons and methane made a negligible contribution to direct greenhouse gas emissions.
[2] Indirect emissions result from the procurement of electricity, steam and cooling energy (Scope 2).
[3] Scope 3 emissions were subjected to a limited assurance review.
[4] Emissions from eight Scope 3 categories are of material importance to Bayer and together represent our total Scope 3 emissions: (1) purchased goods and services, (2) capital goods, (3) fuel- and energy-related activities, (4) (upstream) transportation and distribution, (5) waste generated in operations, (6) business travel, (7) employee commuting and (12) end-of-life treatment of sold products.
[5] Science Based Target
[6] For our reduction target for Scope 3 emissions in line with the SBTi, we consider the following materially important Scope 3 categories, which accounted for 88% of Scope 3 emissions in the baseline year: (1) purchased goods and services, (2) capital goods, (3) fuel- and energy-related activities, (4) (upstream) transportation and distribution and (6) business travel.
[7] Values for 2022 were updated due to new findings in category 3.1.

In 2023, we cut Scope 1 and 2 greenhouse gas emissions by 0.03 million metric tons of CO_2 equivalents, or 0.9%. The main reasons for this reduction are the increased share of electricity purchased from renewable sources (Scope 2).

In the Scope 3 Science Based Targets (SBT) categories that are relevant for our company, our emissions fell by 0.54 million metric tons of CO_2 equivalents, representing a decrease of 6.0% compared with 2022. The reduction in Scope 3 emissions in the SBT-relevant Scope 3 categories was largely attributable to lower purchasing volumes (Scope 3.1) and the associated logistics operations (Scope 3.4). Emissions in the non-SBT-relevant categories (Scope 3.5, 3.7 and 3.12) decreased slightly year on year, by 4,500 metric tons (–0.6%).

To achieve carbon neutrality at our own sites, we financed reforestation and forest conservation projects in countries such as Brazil, Indonesia, Cambodia, Colombia and Uruguay. The climate protection certificates generated as a result enabled us to offset greenhouse gas emissions amounting to 0.6 million metric tons of CO_2 equivalents.

Water

We use water resources as sparingly as possible and are endeavoring to further reduce emissions into water. All relevant sites in areas identified as being threatened by water scarcity through 2030 have a water management system in place.

Total water use in 2023 remained level year on year at 53 million cubic meters (2022: 53 million cubic meters). 32.4% of all water used by Bayer is cooling water that is only heated in the process and does not come into contact with products. It can be returned to the water cycle, in line with the relevant official permits.

At our production facilities, we endeavor to use water several times and to recycle it. All wastewater is subject to thorough checks before it is discharged into the various disposal channels. All our industrial and mixed wastewater is purified in wastewater treatment plants (Bayer or third-party facilities) where necessary, categorized as environmentally safe according to official provisions and returned to the natural water cycle. The total quantity of industrial and mixed wastewater came in at 25 million cubic meters in 2023 and was thus 2.8% higher than the previous year (2022: 24 million cubic meters).

Waste and recycling

We aim to minimize material consumption and disposal volumes through systematic waste management. In accordance with Bayer's corporate policies, all production sites are required to prevent, reduce and recycle waste, and to dispose of it safely and in line with good environmental practices.

The total quantity of waste generated rose to 1,164,000 metric tons in 2023 (2022: 1,038,000 metric tons), mainly due to increased production at the Dormagen site in Germany and the completion of construction work at the Leverkusen site in Germany.

The volume of hazardous waste rose by 14.4% to 316,000 metric tons (2022: 276,000 metric tons) due to the increase in production at the Dormagen site. The volume of hazardous waste from production in this figure, including hazardous waste from wastewater treatment plants, also increased against the prior year, rising from 273,000 metric tons to 312,000 metric tons.

Process and plant safety

We aim to design and operate our processes and production facilities in such a way that they do not pose any inappropriate risks to employees, the environment or neighboring communities. We are working to further develop our safety culture and the expertise of our employees. Principles of process and plant safety are laid out in our globally applicable corporate policies. Compliance with internal and external safety regulations is verified in internal audits.

To prevent the release of substances and energy, the causes of process safety incidents (PSIs) are analyzed and relevant findings are communicated throughout the Bayer Group. For this purpose, we use a globally standardized key performance indicator (KPI) – the Process Safety Incident Rate (PSI-R) – that is integrated into the Group-wide reporting system. The PSI-R indicates the number of PSI incidents per 200,000 hours worked. In 2023, the PSI-R was 0.11 (2022: 0.11).

Transportation safety

Transportation and warehouse safety is part of HSE management and is implemented by networks of supply chain experts. In addition to complying with legal regulations, we have implemented supplementary standards and requirements that are defined in corporate policies. This ensures that our materials are handled and transported in accordance with their respective potential hazards and applicable regulations.

There were 18 transport incidents in 2023 (2022: 17), primarily involving road transport accidents. We define transport incidents as accidents that cause personal injury or significant damage to property, environmental impact resulting from the release of substances, or leakage of hazardous goods.

Safe and health-promoting working conditions

Protecting the health of our workforce and the employees of contractual partners who work on our factory premises is our top priority. We are now also extending these ambitions to our supply chains. We are committed to systematic prevention measures for healthy working conditions and safety in everyday work, in production facilities and during work-related travel and transportation. This involves preventing occupational accidents and occupational illnesses, assessing potential hazards, ensuring comprehensive risk management and creating a healthy working environment.

The "Recordable Incident Rate" (RIR) was 0.42 accidents per 200,000 working hours in 2023 (2022: 0.37). This corresponds to 457 occupational accidents worldwide.

Despite all the safety measures, serious and extremely serious accidents cannot be completely ruled out. In 2023, we reported seven fatal accidents (all traffic accidents) at work involving a Bayer employee. We will not let up in our efforts to further reduce risks and risky behavior.

Moreover, our Purchasing and R&D teams work to reduce the severity of any accidents and to ensure accountability to avoid incident recurrences. We focus on the prevention of incidents and the effectiveness of corrective and preventive measures. The focus was also on reporting on identified risks, analyzing the causes of potentially serious incidents, evaluating the effectiveness of corrective measures and passing on the knowledge gained.

Furthermore, we published global road safety standards and implementation guidance in 2023, and started collecting traffic accident data to track progress.

In order to protect the mental health of our employees and their families, we remain committed to taking active steps to counteract the development of mental illnesses through a variety of target group-specific information and programs. One example is the central “House of Health” intranet platform, which lists a large variety of information and training offerings. In addition, we provided “Employee Assistance Program” offers for 97% of employees and their families worldwide in 2023. Run by external providers, they offer support services and information from mental health specialists.

EU taxonomy

Our sustainability targets (Chapter 1.2.1/1) help us to realize our mission of “Health for all, Hunger for none.” In addition, we also report on other nonfinancial aspects. For 2023, we are required to disclose the proportion of turnover (sales), capital expenditure (CapEx), and operating expenditure (OpEx) in the reporting period that is EU taxonomy-eligible and taxonomy-aligned with regard to the environmental objectives climate change mitigation and climate change adaptation. For the four additional environmental objectives sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, and the protection and restoration of biodiversity and ecosystems, by contrast, we are only required to disclose taxonomy-eligible turnover, capital expenditure and operating expenditure.

Company activities are assessed for taxonomy eligibility based on the economic activities described in Annexes I and II to the Delegated Act of June 4, 2021, and Annexes I through IV to the Delegated Act of June 27, 2023. To avoid double-counting, results are documented for example at product master data level. Taxonomy alignment is evaluated based on the technical screening criteria for each economic activity, which are also defined in the aforementioned Annexes.

We use our own interpretation when applying the EU taxonomy as definitions are not yet available and the wording used is unclear. The FAQ documents published by the European Commission as of December 31, 2023, were duly taken into account.

Reporting on turnover

The definition of turnover according to EU taxonomy corresponds with the sales reported in the consolidated financial statements (see Note [6]).

A portion of our core business became taxonomy-eligible for the first time through the passage of Delegated Regulation (EU) 2023/2486 of June 27, 2023, due to an economic activity “manufacture of medicinal products” which can contribute to the environmental objective pollution prevention and control. Sales of the Pharmaceuticals and Consumer Health divisions can be attributed to this economic activity.

The determination of taxonomy-eligible sales takes place at product level. According to our interpretation, sales generated from medicinal products that are merely resold, repackaged or mixed are not taxonomy-eligible.

Taxonomy-eligible sales amounted to €18,299 million in 2023 (2022: €0 million), and taxonomy-non-eligible sales amounted to €29,338 million (2022: €50,739 million). The proportion of taxonomy-eligible sales was thus 38.4% (2022: 0%). Due to the simplified reporting requirements for 2023 with respect to the four environmental objectives to be applied for the first time, there are no taxonomy-aligned sales to disclose.

The total sales identified as being taxonomy-eligible and taxonomy-aligned are shown in the following table:

A 1.8/2

Taxonomy Turnover Reporting

	Fiscal year 2023			Substantial contribution criteria[1]					
Economic activities	**Code**	**Turnover**	**Proportion of turnover 2023**	**Climate change mitigation**	**Climate change adaptation**	**Water**	**Pollution**	**Circular economy**	**Biodiversity**
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (taxonomy-aligned)									
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Of which enabling		0	0	0	0	0	0	0	0
Of which transitional		0	0	0					
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)									
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL
Manufacture of medicinal products	PPC 1.2	18,299	38.4	N/EL	N/EL	N/EL	EL	N/EL	N/EL
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		**18,299**	**38.4**	**0**	**0**	**0**	**38.4**	**0**	**0**
Turnover of taxonomy-eligible activities (A.1+A.2)		**18,299**	**38.4**	**0**	**0**	**0**	**38.4**	**0**	**0**
B. Taxonomy-non-eligible activities									
Turnover of taxonomy-non-eligible activities		**29,338**	**61.6**						
Total		**47,637**	**100**						

[1] Y – Yes, activity is taxonomy-eligible and taxonomy-aligned with the relevant environmental objective;
N – No, activity is taxonomy-eligible but not taxonomy-aligned with the relevant environmental objective;
EL – 'eligible': activity is taxonomy-eligible for the respective environmental objective;
N/EL – 'not eligible': activity is not taxonomy-eligible for the respective environmental objective.

A 1.8/2 (continued)

Taxonomy Turnover Reporting

Economic activities	DNSH criteria (‘Does Not Significantly Harm’) Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or -eligible (A.2) turnover 2022	Category enabling activity	Category transitional activity
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. Taxonomy-eligible activities										
A.1 Environmentally sustainable activities (taxonomy-aligned)										
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)								**0**		
Of which enabling								0		
Of which transitional								0		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)										
Manufacture of medicinal products	–	–	–	–	–	–	–	0		
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)								**0**		
Turnover of taxonomy-eligible activities (A.1+A.2)										
B. Taxonomy-non-eligible activities										
Turnover of taxonomy-non-eligible activities										
Total										

A 1.8/3

Proportion of Turnover per Environmental Objective

%	Proportion of turnover/total turnover: Aligned per objective	Eligible per objective
Climate change mitigation (CCM)	0	0
Climate change adaptation (CCA)	0	0
Water and marine resources (WTR)	0	0
Circular economy (CE)	0	0
Pollution prevention and control (PPC)	0	38.4
Biodiversity and ecosystems (BIO)	0	0

Reporting on capital expenditure

Capital expenditure in 2023 comprised investments in tangible and intangible assets before depreciation, amortization, impairments and remeasurements. Also included were investments in tangible and intangible assets due to business combinations. For further details, see Notes [14] and [15].

The taxonomy-eligible capital expenditure is determined by linking the capital expenditure undertaken with the taxonomy-eligible products (Category a). Capital expenditure that cannot be clearly assigned is taken into consideration on the basis of allocation keys. Capital expenditures for the purchase of products from taxonomy-eligible economic activities or individual measures to reduce greenhouse gas emissions (Category c) are also included in this figure.

As explained in the previous section, no taxonomy alignment review was undertaken in 2023 for the economic activity "manufacture of medicinal products." Furthermore, at present there is no process for reliably verifying the acquisition of taxonomy-aligned products in Category c. The procedure for the remaining capital expenditure in connection with the environmental objective climate change mitigation is described below.

We examine whether or not an economic activity contributes substantially to climate change mitigation based on the individual asset.

To rule out significant harm being caused to other environmental objectives, we assess the respective criteria at various levels. The criteria for climate change adaptation are assessed at site level, while the in some cases highly granular requirements for the other environmental objectives are examined at the individual asset level.

Compliance with the minimum safeguards is examined at Group level, taking into account existing corporate policies and risk management processes with respect to human rights, compliance, anticorruption and other aspects.

We incurred taxonomy-eligible capital expenditure (CapEx) of €543 million in 2023 (2022: €390 million). Taxonomy-non-eligible capital expenditure amounted to €2,798 million (2022: €3,250 million). The proportion of taxonomy-eligible capital expenditure therefore came to 16.3% (2022: 10.7%). We were once again unable to identify any taxonomy-aligned capital expenditure (2022: €0 million).

The total capital expenditure identified as being taxonomy-eligible and taxonomy-aligned is shown in the following table:

A 1.8/4

Taxonomy CapEx Reporting

		Fiscal year 2023		Substantial contribution criteria[1]					
Economic activities	Code	CapEx	Proportion of CapEx 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (taxonomy-aligned)									
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Of which enabling		0	0	0	0	0	0	0	0
Of which transitional		0	0	0					
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)									
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL
Construction, extension and operation of waste water collection and treatment	CCM 5.3	0	0	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Renewal of waste water collection and treatment	CCM 5.4	3	0.1	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Transport by motorbikes, passenger cars and light commercial vehicles	CCM 6.5	32	1.0	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Renovation of existing buildings	CCM 7.2	19	0.6	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Installation, maintenance and repair of energy efficiency equipment	CCM 7.3	1	<0.1	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	CCM 7.5	0	0	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Acquisition and ownership of buildings	CCM 7.7	16	0.5	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of medicinal products	PPC 1.2	472	14.1	N/EL	N/EL	N/EL	EL	N/EL	N/EL
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		**543**	**16.3**	**2.2**	**0**	**0**	**14.1**	**0**	**0**
CapEx of taxonomy-eligible activities (A.1+A.2)		**543**	**16.3**	**2.2**	**0**	**0**	**14.1**	**0**	**0**
B. Taxonomy-non-eligible activities									
CapEx of taxonomy-non-eligible activities		**2,798**	**83.7**						
Total		**3,341**	**100**						

[1] Y – Yes, activity is taxonomy-eligible and taxonomy-aligned with the relevant environmental objective;
N – No, activity is taxonomy-eligible but not taxonomy-aligned with the relevant environmental objective;
EL – 'eligible': activity is taxonomy-eligible for the respective environmental objective;
N/EL – 'not eligible': activity is not taxonomy-eligible for the respective environmental objective.

A 1.8/4 (continued)

Taxonomy CapEx Reporting

Economic activities	DNSH criteria (‘Does Not Significantly Harm’) Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or -eligible (A.2) CapEx 2022	Category enabling activity	Category transitional activity
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. Taxonomy-eligible activities										
A.1 Environmentally sustainable activities (taxonomy-aligned)										
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)								**0**		
Of which enabling								0		
Of which transitional								0		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)										
Construction, extension and operation of waste water collection and treatment	–	–	–	–	–	–	–	0.2		
Renewal of waste water collection and treatment	–	–	–	–	–	–	–	0.3		
Transport by motorbikes, passenger cars and light commercial vehicles	–	–	–	–	–	–	–	0.6		
Renovation of existing buildings	–	–	–	–	–	–	–	3.2		
Installation, maintenance and repair of energy efficiency equipment	–	–	–	–	–	–	–	1.2		
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	–	–	–	–	–	–	–	0.5		
Acquisition and ownership of buildings	–	–	–	–	–	–	–	4.7		
Manufacture of medicinal products	–	–	–	–	–	–	–	0		
CapEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)								**10.7**		
CapEx of taxonomy-eligible activities (A.1+A.2)										
B. Taxonomy-non-eligible activities										
CapEx of taxonomy-non-eligible activities										
Total										

A 1.8/5

Proportion of CapEx per Environmental Objective

	Proportion of CapEx/total CapEx	
%	**Aligned per objective**	**Eligible per objective**
Climate change mitigation (CCM)	0	2.2
Climate change adaptation (CCA)	0	0
Water and marine resources (WTR)	0	0
Circular economy (CE)	0	0
Pollution prevention and control (PPC)	0	14.1
Biodiversity and ecosystems (BIO)	0	0

Reporting on operating expenditure

Our operating expenditure with respect to research and development, short-term leasing, and maintenance and repair amounted to €7,204 million in 2023 (2022: €7,460 million).

Taxonomy-eligible operating expenditure amounted to €161 million (2022: €0 million), and taxonomy-non-eligible operating expenditure amounted to €7,043 million (2022: €7,460 million). The proportion of taxonomy-eligible operating expenditure therefore came to 2.2% (2022: 0%). Due to the simplified reporting requirements for 2023 with respect to the four environmental objectives to be applied for the first time, there is no taxonomy-aligned operating expenditure to disclose.

The total operating expenditure identified as being taxonomy-eligible and taxonomy-aligned is shown in the following table:

A 1.8/6

Taxonomy OpEx Reporting

	Fiscal year 2023			Substantial contribution criteria[1]					
Economic activities	Code	OpEx	Proportion of OpEx 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity
		€ million	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL
A. Taxonomy-eligible activities									
A.1 Environmentally sustainable activities (taxonomy-aligned)									
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Of which enabling		0	0	0	0	0	0	0	0
Of which transitional		0	0	0					
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)									
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL
Manufacture of medicinal products	PPC 1.2	161	2.2	N/EL	N/EL	N/EL	EL	N/EL	N/EL
OpEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		**161**	**2.2**	**0**	**0**	**0**	**2.2**	**0**	**0**
OpEx of taxonomy-eligible activities (A.1+A.2)		**161**	**2.2**	**0**	**0**	**0**	**2.2**	**0**	**0**
B. Taxonomy-non-eligible activities									
OpEx of taxonomy-non-eligible activities		**7,043**	**97.8**						
Total		**7,204**	**100**						

[1] Y – Yes, activity is taxonomy-eligible and taxonomy-aligned with the relevant environmental objective;
N – No, activity is taxonomy-eligible but not taxonomy-aligned with the relevant environmental objective;
EL – ‘eligible’: activity is taxonomy-eligible for the respective environmental objective;
N/EL – ‘not eligible’: activity is not taxonomy-eligible for the respective environmental objective.

A 1.8/6 (continued)

Taxonomy OpEx Reporting

Economic activities	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards	Proportion of taxonomy-aligned (A.1) or -eligible (A.2) OpEx 2022	Category enabling activity	Category transitional activity
	DNSH criteria ('Does Not Significantly Harm')									
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. Taxonomy-eligible activities										
A.1 Environmentally sustainable activities (taxonomy-aligned)										
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)								**0**		
Of which enabling								0		
Of which transitional								0		
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)										
Manufacture of medicinal products	–	–	–	–	–	–	–	0		
OpEx of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)								**0**		
OpEx of taxonomy-eligible activities (A.1+A.2)										
B. Taxonomy-non-eligible activities										
OpEx of taxonomy-non-eligible activities										
Total										

A 1.8/7

Proportion of OpEx per Environmental Objective

%	Proportion of OpEx/total OpEx: Aligned per objective	Eligible per objective
Climate change mitigation (CCM)	0	0
Climate change adaptation (CCA)	0	0
Water and marine resources (WTR)	0	0
Circular economy (CE)	0	0
Pollution prevention and control (PPC)	0	2.2
Biodiversity and ecosystems (BIO)	0	0

2. Report on Economic Position

2.1 Overview of Business Performance

2.1.1 Economic Position and Target Attainment

2023 was a challenging year for our company. Sales edged back 1.2% on a currency- and portfolio-adjusted basis (Fx & portfolio adj.), while EBITDA before special items fell by a considerable 13.4%. The EBITDA margin before special items came in at 24.6%, down 2.0 percentage points against the previous year. This was largely due to the decline in business at Crop Science, which, in turn, was mainly attributable to significantly lower prices for our glyphosate-based products. Sales in that division fell accordingly, moving back by 3.7% (Fx & portfolio adj.), and EBITDA before special items declined by 26.6%. Sales at Pharmaceuticals were at the prior-year level (Fx & portfolio adj. –0.4%), while EBITDA before special items fell by 11.6%. Consumer Health registered encouraging sales growth of 6.3% (Fx & portfolio adj.) and a 3.2% increase in EBITDA before special items. Our business was impacted by substantial currency headwinds overall. Group earnings per share (total) came in at minus €2.99 in 2023, and were mainly weighed down by impairment losses. Core earnings per share dropped by a considerable 19.5% to €6.39.

In the Group outlook published in March, we anticipated sales of €50 to €51 billion, corresponding to an increase of 2% to 3% on a currency- and portfolio-adjusted basis. EBITDA before special items was forecast to come in at €12.5 to €13 billion, and earnings per share before special items at €7.20 to €7.40. Free cash flow was projected to be around €3.0 billion.

The forecast was revised in August due to the weaker-than-expected business performance. As part of this updated guidance, we anticipated sales of €46.8 to €47.8 billion, corresponding to a currency- and portfolio-adjusted decline of 2% to 3%. EBITDA before special items was predicted to come in at €11.3 to €11.8 billion, and core earnings per share at €6.20 to €6.40. Free cash flow was expected to be approximately €0 billion.

We exceeded this adjusted Group outlook with respect to currency- and portfolio-adjusted sales growth and free cash flow. EBITDA before special items and core earnings per share were both at the upper end of the target range.

Target Attainment in 2023

A 2.1.1/1

Target Attainment

Target	Original 2023 outlook[1]	Revised 2023 outlook[2]	Target attainment in 2023
Group sales	€50 to €51 billion Fx & p adj.: +2 to +3%	€46.8 to €47.8 billion Fx & p adj.: –2 to –3%	€47.6 billion Fx & p adj.: –1.2%
EBITDA before special items[3]	€12.5 to €13.0 billion	€11.3 to €11.8 billion	€11.7 billion
Core earnings per share[3]	€7.20 to €7.40	€6.20 to €6.40	€6.39
Free cash flow[3]	approx. €3.0 billion	approx. €0 billion	€1.3 billion

Fx adj. = currency-adjusted
Fx & p adj. = currency- and portfolio-adjusted
[1] Published in March 2023
[2] Published in August 2023
[3] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

2.1.2 Key Events

Board of Management

The Supervisory Board of Bayer AG appointed Bill Anderson to become Chairman of the Board of Management (CEO) of Bayer effective June 1, 2023. Anderson had already joined Bayer as a member of the Board of Management on April 1, 2023. Werner Baumann and the Supervisory Board had previously agreed to prematurely terminate Baumann's contract as Chairman (CEO) and member of the Board of Management, which was originally set to run until April 30, 2024. His service contract and tenure as Chairman of the Board of Management (CEO) ended by mutual consent effective May 31, 2023.

The Supervisory Board of Bayer AG also unanimously appointed Heike Prinz to Bayer's Board of Management as Chief Talent Officer and Labor Director effective September 1, 2023. This followed the mutual agreement between Sarena Lin and the Supervisory Board to not extend Lin's contract as a member of the Board of Management. Sarena Lin left the company effective August 31, 2023.

Innovations and product approvals

The following significant events relating to our innovative products occurred in 2023 and early 2024.

Our cancer drug Nubeqa™, which is currently in the launch phase, was granted a label extension in Japan, the EU and China for the treatment of patients with metastatic hormone-sensitive prostate cancer (mHSPC) in 2023.

Based on the recommendation of the study's Independent Data Monitoring Committee (IDMC), we decided to stop OCEANIC-AF, a Phase III study investigating our development candidate asundexian. An ongoing surveillance showed that asundexian 50 mg was not as effective as the Factor Xa inhibitor in the control arm in SPAF, stroke prevention in atrial fibrillation. We will continue to investigate asundexian in the Phase III study OCEANIC-STROKE as planned based on the recommendation of the IDMC, and are currently re-evaluating other indications in patients requiring antithrombotic treatment.

In January 2024, we announced positive news relating to our drug candidate elinzanetant, which we are investigating as a non-hormonal treatment of vasomotor symptoms in menopausal women. The pivotal Phase III OASIS 1 and 2 studies reached all of their primary and secondary endpoints. The results of the third PHASE III study OASIS 3 are expected in the first quarter of 2024. We plan to submit data from the OASIS 1, 2 and 3 studies to health authorities for approval of marketing authorizations for elinzanetant.

Also in January 2024, we obtained marketing authorization in the European Union and Japan for Eylea™ 8 mg (aflibercept 8 mg) for the treatment of neovascular (wet) age-related macular degeneration (nAMD) and diabetic macular edema (DME). Eylea™ 8 mg is the only treatment that is approved in the EU for extended treatment intervals of up to five months in these indications.

Sustainability

In early May, we announced the signing of a long-term agreement with Cat Creek Energy (CCE), a renewable energy Independent Power Producer. The agreement will make a significant contribution to reducing our carbon footprint in energy procurement, and lead to the construction by CCE of multiple variable renewable energy resources plus energy storage facilities in the US state of Idaho.

Financing activities

In May, we placed new senior bonds with a total volume of €3 billion. The issuance comprised three tranches and was multiple times covered.

In September, we issued hybrid bonds with a total volume of €1.75 billion that were multiple times oversubscribed. The issuance comprised two tranches and exclusively targeted institutional investors. The proceeds were used for various purposes, including financing a tender offer for two outstanding hybrid bonds.

In November, we placed new bonds with a total volume of US$5.75 billion (€5.3 billion). These were issued by our subsidiary Bayer US Finance LLC, United States, and guaranteed by Bayer AG. The issuance comprised five tranches with maturities of between 3 and 30 years which were multiple times oversubscribed, and exclusively targeted institutional investors.

2.1.3 Economic Environment

Global economic growth declines

Global economic growth slowed to a low single-digit percentage in 2023. Major headwinds included the wars in Ukraine and the Middle East, the growing fragmentation of the world economy, high inflation rates and more restrictive monetary policy.

Currency development

In 2023, Group sales included negative currency effects of €1,964 million, and EBITDA before special items contained negative currency effects of €375 million. The effects pertained to the currencies shown in the following table.

A 2.1.3/1

Currency Development Bayer Group

	Average end-of-day exchange rate against the euro for the year		€ million	
	2022	**2023**	**Fx effect on sales**	**Fx effect on clean EBITDA**
AUD	1.52	1.63	(62)	(33)
BRL	5.42	5.40	36	16
CAD	1.37	1.46	(98)	(56)
CNY	7.08	7.66	(258)	(153)
JPY	137.76	151.55	(165)	(90)
MXN	21.13	19.17	126	66
RUB	70.22	91.23	(228)	(173)
TRY	17.27	24.89	(85)	(146)
USD	1.05	1.08	(249)	141
Other currency areas and effects[1]			(981)	53
Total			**(1,964)**	**(375)**

[1] Fx hedging, including hedging costs

2.2 Earnings; Asset and Financial Position of the Bayer Group

2.2.1 Earnings Performance of the Bayer Group

Business Development of the Bayer Group

A 2.2.1/1

			Change (%)				Change (%)	
€ million	Q4 2022	Q4 2023	Reported	Fx & p adj.	2022	2023	Reported	Fx & p adj.
Sales	**12,000**	**11,862**	**−1.2**	**+5.5**	**50,739**	**47,637**	**−6.1**	**−1.2**
Change in sales[1]								
Volume	−0.6%	+9.0%			+0.8%	+0.6%		
Price	+4.7%	−3.5%			+7.9%	−1.8%		
Currency	+5.5%	−6.5%			+6.8%	−3.9%		
Portfolio	−1.7%	−0.2%			−0.4%	−1.0%		
Sales by region								
Europe/Middle East/Africa	3,068	3,085	+0.6	+7.5	14,429	14,086	−2.4	+3.1
North America	3,937	3,789	−3.8	+1.3	17,571	16,254	−7.5	−4.5
Asia/Pacific	2,283	2,067	−9.5	−2.9	9,451	8,369	−11.4	−3.4
Latin America	2,712	2,921	+7.7	+16.2	9,288	8,928	−3.9	+0.8
EBITDA[1]	**3,276**	**2,646**	**−19.2**		**13,515**	**10,632**	**−21.3**	
Special items[1]	814	(377)			2	(1,074)		
EBITDA before special items[1]	**2,462**	**3,023**	**+22.8**		**13,513**	**11,706**	**−13.4**	
EBITDA margin before special items[1]	20.5%	25.5%			26.6%	24.6%		
EBIT[1]	**1,432**	**2,189**	**+52.9**		**7,012**	**612**	**−91.3**	
Special items[1]	(21)	247			(2,245)	(6,977)		
EBIT before special items[1]	**1,453**	**1,942**	**+33.7**		**9,257**	**7,589**	**−18.0**	
Financial result	**(562)**	**(545)**	**−3.0**		**(2,342)**	**(2,233)**	**−4.7**	
Net income (from continuing and discontinued operations)	**611**	**1,337**	**+118.8**		**4,150**	**(2,941)**	**.**	
Earnings per share from continuing and discontinued operations (€)	**0.62**	**1.36**	**+119.4**		**4.22**	**(2.99)**	**.**	
Core earnings per share[1] from continuing operations (€)	**1.35**	**1.85**	**+37.0**		**7.94**	**6.39**	**−19.5**	
Net cash provided by (used in) operating activities (from continuing and discontinued operations)	**3,061**	**5,607**	**+83.2**		**7,093**	**5,117**	**−27.9**	
Free cash flow[1]	**1,420**	**4,260**	**.**		**3,111**	**1,311**	**−57.9**	
Net financial debt (at end of period)	**31,809**	**34,498**	**+8.5**		**31,809**	**34,498**	**+8.5**	
Cash flow-relevant capital expenditures (from continuing and discontinued operations)	**1,324**	**996**	**−24.8**		**2,949**	**2,751**	**−6.7**	
Research and development expenses	**1,614**	**1,070**	**−33.7**		**6,572**	**5,371**	**−18.3**	
Depreciation, amortization and impairment losses/loss reversals	**1,844**	**457**	**−75.2**		**6,503**	**10,020**	**+54.1**	
Number of employees (at end of period)[2]	**101,369**	**99,723**	**−1.6**		**101,369**	**99,723**	**−1.6**	
Personnel expenses (including pension expenses)	**3,141**	**2,373**	**−24.5**		**12,619**	**10,691**	**−15.3**	

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Sales

Sales of the Bayer Group declined to €47,637 million (Fx & portfolio adj. –1.2%; reported –6.1%) in 2023, with Germany accounting for €2,448 million of this figure. We registered substantial negative currency effects of €1,964 million.

Sales at Crop Science fell by 3.7% (Fx & portfolio adj.) to €23,270 million, primarily due to the decline in prices for our glyphosate-based products. Sales at Pharmaceuticals were level with the prior year, at €18,081 million (Fx & portfolio adj. –0.4%). Significant gains for our new products Nubeqa™ and Kerendia™ and continued sales growth for Eylea™ and our Radiology business were mainly offset by declines in China. Consumer Health posted a 6.3% increase in sales (Fx & portfolio adj.) to €6,027 million, largely thanks to strong performance in the Dermatology and Pain & Cardio categories. In the Reconciliation, sales increased by 9.1% (Fx & portfolio adj.) to €259 million.

Earnings

EBITDA before special items of the Bayer Group fell 13.4% to €11,706 million (2022: €13,513 million). This figure included a negative currency effect of €375 million. At Crop Science, EBITDA before special items dropped by 26.6% to €5,038 million (2022: €6,867 million), largely due to the decline in prices for our glyphosate-based products. Earnings were also diminished by a mainly inflation-related increase in the cost of goods sold. At Pharmaceuticals, EBITDA before special items was down by 11.6%, at €5,189 million (2022: €5,873 million). This was primarily attributable to an unfavorable product mix, inflation-driven cost increases, and higher R&D investments. Consumer Health posted a 3.2% increase in EBITDA before special items to €1,411 million (2022: €1,367 million), mainly driven by our multi-year efficiency program, price management efforts and sustained sales growth. In the Reconciliation, EBITDA before special items came in at €68 million (2022: minus €594 million). Due to lower target attainment, the expense for the Group-wide short-term incentive (STI) progam declined across all divisions, falling by around €1 billion overall. In addition, the expense for the long-term incentive (LTI) program recognized in the Reconciliation was around €0.4 billion lower than in the previous year.

EBITDA came in at €10,632 million in 2023 (2022: €13,515 million). **Depreciation, amortization, impairment losses and impairment loss reversals** led to net expense of €10,020 million (2022: €6,503 million). Of this amount, intangible assets accounted for amortization, impairment losses and impairment loss reversals of €7,696 million (2022: €4,691 million), and property, plant and equipment accounted for depreciation, impairment losses and impairment loss reversals of €2,324 million (2022: €1,812 million). Impairment losses and impairment loss reversals led to net expense of €6,111 million (2022: €2,554 million), with intangible assets accounting for net expense of €5,402 million (2022: €2,332 million). The impairment losses and impairment loss reversals were primarily attributable to the Crop Science Division (net impairment losses of €6,082 million).

A total of €5,905 million in impairment losses, net of impairment loss reversals, were included in special items (2022: €2,226 million). There was zero accelerated depreciation in 2023 (2022: €4 million).

EBIT before special items declined by 18.0% to €7,589 million (2022: €9,257 million). **EBIT** amounted to €612 million in 2023 (2022: €7,012 million) after net special charges of €6,977 million (2022: €2,245 million). The special charges mainly resulted from the aforementioned impairment losses, which were primarily attributable to the Crop Science Division.

In 2023, the following special effects were taken into account in calculating EBIT and EBITDA before special items.

A 2.2.1/2

Special Items[1] by Category

€ million	EBIT Q4 2022	EBIT Q4 2023	EBIT 2022	EBIT 2023	EBITDA Q4 2022	EBITDA Q4 2023	EBITDA 2022	EBITDA 2023
Total special items	**(21)**	**247**	**(2,245)**	**(6,977)**	**814**	**(377)**	**2**	**(1,074)**
Restructuring	(350)	(222)	(697)	(586)	(315)	(186)	(662)	(548)
of which in the Reconciliation	(118)	(147)	(233)	(237)	(100)	(111)	(215)	(201)
Acquisition/integration	(2)	–	–	(18)	(2)	–	–	(18)
Divestments	1,196	2	1,320	(43)	1,196	2	1,320	(43)
of which in the Reconciliation	–	–	(10)	–	–	–	(10)	–
Litigations/legal risks	(37)	(171)	(616)	(521)	(37)	(171)	(616)	(521)
of which in the Reconciliation	(37)	(229)	(744)	(592)	(37)	(229)	(744)	(592)
Impairment losses/loss reversals[2]	(801)	660	(2,215)	(5,870)	(1)	(1)	(3)	(5)
Other	(27)	(22)	(37)	61	(27)	(21)	(37)	61

2022 figures restated
[1] For definition, see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Where not already included in the other special items categories

Core earnings per share

Core earnings per share decreased by a substantial 19.5% year on year to €6.39 (2022: €7.94) due to the decline in earnings in the Crop Science and Pharmaceuticals divisions.

Earnings per share (total) amounted to minus €2.99 in 2023 (2022: €4.22). The difference between this figure and the one for core earnings per share is mainly due to the impairment losses that were primarily attributable to the Crop Science Division.

A 2.2.1/3

Core Earnings per Share[1]

€ million	Q4 2022	Q4 2023	2022	2023
EBIT[1] (as per income statements)	**1,432**	**2,189**	**7,012**	**612**
Amortization and impairment losses/loss reversals on goodwill and other intangible assets	1,231	(61)	4,691	7,696
Impairment losses/loss reversals on property, plant and equipment, and accelerated depreciation included in special items	190	107	226	709
Special items (other than accelerated depreciation, amortization and impairment losses/loss reversals)	(814)	378	(2)	1,074
Core EBIT[1]	**2,040**	**2,613**	**11,927**	**10,091**
Financial result (as per income statements)	(562)	(545)	(2,342)	(2,233)
Special items in the financial result[2]	156	54	408	364
Income taxes (as per income statements)	(261)	(302)	(504)	(1,321)
Special items in income taxes	–	–	–	–
Tax effects related to amortization, impairment losses/loss reversals and special items	(39)	3	(1,662)	(589)
Income after income taxes attributable to noncontrolling interest (as per income statements)	2	(5)	(16)	1
Above-mentioned adjustments attributable to noncontrolling interest	(6)	(4)	(7)	(33)
Core net income from continuing operations	**1,329**	**1,814**	**7,804**	**6,280**
Shares (million)				
Weighted average number of shares	982.42	982.42	982.42	982.42
€				
Core earnings per share from continuing operations[1]	**1.35**	**1.85**	**7.94**	**6.39**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Includes in particular the changes in the fair value of the interests in Century Therapeutics, Inc. and Pyxis Oncology, interest cost for the provisions for litigations/legal risks, and currency effects related to dividend payments in Brazil.

Bayer Group – Other Earnings Parameters

A 2.2.1/4

Bayer Group Summary Income Statements

€ million	Q4 2022	Q4 2023	Change (%)	2022	2023	Change (%)
Net sales	12,000	11,862	–1.2	50,739	47,637	–6.1
Cost of goods sold	(4,768)	(4,486)	–5.9	(19,871)	(19,749)	–0.6
Selling expenses	(3,706)	(2,839)	–23.4	(14,084)	(12,482)	–11.4
Research and development expenses	(1,614)	(1,070)	–33.7	(6,572)	(5,371)	–18.3
General administration expenses	(720)	(755)	+4.9	(2,838)	(2,453)	–13.6
Other operating income/(expenses)	240	(523)	.	(362)	(6,970)	.
EBIT[1]	**1,432**	**2,189**	**+52.9**	**7,012**	**612**	**–91.3**
Financial result	**(562)**	**(545)**	**–3.0**	**(2,342)**	**(2,233)**	**–4.7**
Income before income taxes	**870**	**1,644**	**+89.0**	**4,670**	**(1,621)**	**.**
Income taxes	(261)	(302)	+15.7	(504)	(1,321)	+162.1
Income from continuing operations after taxes	609	1,342	+120.4	4,166	(2,942)	.
Income from discontinued operations after taxes	–	–		–	–	
Income after income taxes (total)	**609**	**1,342**	**+120.4**	**4,166**	**(2,942)**	**.**
of which attributable to noncontrolling interest	(2)	5	.	16	(1)	.
of which attributable to Bayer AG stockholders (net income)	**611**	**1,337**	**+118.8**	**4,150**	**(2,941)**	**.**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Functional costs

The special effects accounted for in EBIT and EBITDA before special items were attributable to the functional costs as shown in the following table.

A 2.2.1/5

Special Items[1] by Functional Cost

€ million	EBIT Q4 2022	EBIT Q4 2023	EBIT 2022	EBIT 2023	EBITDA Q4 2022	EBITDA Q4 2023	EBITDA 2022	EBITDA 2023
Total special items	**(21)**	**247**	**(2,245)**	**(6,977)**	**814**	**(377)**	**2**	**(1,074)**
Cost of goods sold	(118)	554	(985)	(3)	(27)	(13)	(76)	(62)
Selling expenses	(215)	273	(538)	90	(184)	(50)	(350)	(209)
Research and development expenses	45	433	(404)	464	7	29	(5)	(1)
General administration expenses	(115)	(181)	(348)	(311)	(97)	(145)	(330)	(275)
Other operating income/(expenses)	382	(832)	30	(7,217)	1,115	(198)	763	(527)

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

The cost of goods sold in 2023 was level with the previous year at €19,749 million (–0.6%), while the ratio of the cost of goods sold to total sales rose to 41.5% (2022: 39.2%). After adjusting for special items and currency effects, the cost of goods sold increased by 10.1%. This was primarily due to higher raw material costs and inflation-related cost increases within the Crop Science Division.

Selling expenses decreased by 11.4% to €12,482 million and accounted for 26.2% (2022: 27.8%) of sales. After adjusting for special items and currency effects, selling expenses were down by 3.7%. This was mainly driven by Pharmaceuticals, where the decline was partly due to lower investment in marketing activities for our more mature product portfolio.

Research and development (R&D) expenses decreased by 18.3% to €5,371 million, and the ratio of R&D expenses to sales came in at 11.3% (2022: 13.0%). This decrease resulted from lower special charges in the Crop Science and Pharmaceuticals divisions and from currency effects. After adjusting for special items and currency effects, R&D expenses fell by 3.9%.

General administration expenses fell by 13.6% to €2,453 million. The ratio of general administration expenses to total sales fell to 5.1% (2022: 5.6%). Adjusted for special items and currency effects, general administration expenses were 9.3% lower, mainly due to significantly lower expense for the Group-wide incentive programs.

The balance of other operating expenses and other operating income came in at minus €6,970 million, representing a substantial deterioration against the prior year (2022: minus €362 million) that was predominantly due to impairment losses on goodwill.

Overall, all functional costs were diminished by the lower expense for the Group-wide incentive programs.

Financial result and income before income taxes

After a financial result of minus €2,233 million (2022: minus €2,342 million), income before income taxes amounted to minus €1,621 million (2022: €4,670 million). The improvement in the financial result was largely due to a net positive change in the fair value of financial investments and higher interest income from investments in particular. These effects were partly offset by higher interest expense and negative currency effects related to the Argentinian peso.

A 2.2.1/6

Financial Result[1]

€ million	Q4 2022	Q4 2023	2022	2023
Income (loss) from investments in affiliated companies	(110)	(32)	(300)	(173)
Net interest expense	(211)	(267)	(1,058)	(1,134)
Other financial income/(expenses)	(241)	(246)	(984)	(926)
of which interest portion of discounted provisions	(80)	(73)	(420)	(429)
of which exchange gain (loss)	(63)	(227)	(219)	(449)
of which miscellaneous financial income/(expenses)	(98)	54	(345)	(48)
Total	**(562)**	**(545)**	**(2,342)**	**(2,233)**
of which special items	(156)	(54)	(408)	(364)

[1] Further information on the financial result is given in Note [10].

Income taxes

Income tax expense of €1,321 million was recorded in 2023 (2022: €504 million). The year-on-year increase in tax expense was mainly due to a decline in deferred tax income arising from the recognition of temporary differences, tax loss and interest carryforwards, and tax credits. The decline in taxes paid/accrued reflected the company's general business performance.

Net income

After income tax expense and income attributable to noncontrolling interest, there was a net loss of €2,941 million in 2023 (2022: net income of €4,150 million).

2.2.2 Business Development by Division

Crop Science

Market

The global seed and crop protection market recorded a decline (approximately –4%) in 2023, which was largely due to significantly lower glyphosate prices but partially offset by growth in the fungicides, corn and cereals segments. In addition, pressure on the market from generics and the continued high inflation and its impact on cost further exacerbated the difficult market environment for farmers worldwide and for Crop Science.

A 2.2.2/1

Key Data – Crop Science

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Sales	**5,569**	**5,630**	**+1.1**	**+6.0**	**25,169**	**23,270**	**−7.5**	**−3.7**
Change in sales[1]								
Volume	+2.9%	+14.7%			−0.1%	+1.2%		
Price	+8.5%	−8.7%			+15.7%	−4.9%		
Currency	+10.6%	−4.9%			+9.7%	−2.2%		
Portfolio	−3.3%	0.0%			−0.7%	−1.6%		
Sales by region								
Europe/Middle East/Africa	632	610	−3.5	+3.5	4,843	4,668	−3.6	+2.8
North America	2,014	1,946	−3.4	+1.4	10,341	9,135	−11.7	−9.0
Asia/Pacific	625	567	−9.3	−3.3	2,433	2,287	−6.0	+4.8
Latin America	2,298	2,507	+9.1	+13.4	7,552	7,180	−4.9	−3.3
EBITDA[1]	**1,511**	**1,088**	**−28.0**		**7,546**	**4,968**	**−34.2**	
Special items[1]	691	18			679	(70)		
EBITDA before special items[1]	**820**	**1,070**	**+30.5**		**6,867**	**5,038**	**−26.6**	
EBITDA margin before special items[1]	14.7%	19.0%			27.3%	21.7%		
EBIT[1]	**127**	**975**	**.**		**2,950**	**(3,486)**	**.**	
Special items[1]	(126)	579			(1,460)	(6,034)		
EBIT before special items[1]	**253**	**396**	**+56.5**		**4,410**	**2,548**	**−42.2**	
Net cash provided by operating activities	**2,073**	**3,535**	**+70.5**		**3,394**	**1,850**	**−45.5**	
Cash flow-relevant capital expenditures	760	468	−38.4		1,486	1,268	−14.7	
Research and development expenses	679	247	−63.6		2,876	1,896	−34.1	

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Sales

Sales at Crop Science declined by 3.7% (Fx & portfolio adj.) to €23,270 million in 2023, mainly due to lower prices for our glyphosate-based products as a result of reduced prices for generics. Amid an inflation-driven market environment, the rest of our portfolio saw a positive price development overall, driven by innovative products and higher commodity prices.

A 2.2.2/2

Sales by Strategic Business Entity

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Crop Science	**5,569**	**5,630**	**+1.1**	**+6.0**	**25,169**	**23,270**	**−7.5**	**−3.7**
Corn Seed & Traits	1,438	1,522	+5.8	+8.8	6,089	6,857	+12.6	+13.8
Herbicides	1,648	1,388	−15.8	−8.7	8,325	5,926	−28.8	−26.0
Fungicides	727	880	+21.0	+26.2	3,273	3,444	+5.2	+8.8
Soybean Seed & Traits	774	836	+8.0	+10.3	2,462	2,571	+4.4	+5.5
Insecticides	375	416	+10.9	+17.4	1,584	1,596	+0.8	+4.8
Cotton Seed[2]	159	131	−17.6	−15.3	685	575	−16.1	−17.4
Vegetable Seeds	191	203	+6.3	+11.5	717	735	+2.5	+6.7
Other[3]	257	254	−1.2	+8.1	2,034	1,566	−23.0	−1.2

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Starting in 2023, the cash-generating unit Cotton Seed is no longer reported under “Other” and is instead presented separately.
[3] Following the partial sale of Environmental Science, the remaining parts of that business – Industrial Turf & Ornamental (IT&O) and Lawn & Garden – are being reported under “Other” from 2023 onwards.

- // **Corn Seed & Traits** posted significant sales gains, primarily driven by price increases in all regions.
- // Sales at **Herbicides** declined markedly due to lower prices for our glyphosate-based products across all regions.
- // Our **Fungicides** business reported sales growth in all regions, mainly thanks to higher prices in Europe/Middle East/Africa and increased volumes in Latin and North America. However, volumes were down in Europe/Middle East/Africa and Asia/Pacific due to weather-related factors.
- // Sales at **Soybean Seed & Traits** were up, primarily driven by higher license revenues in Latin America. However, business was impacted by a decrease in license revenues and lower planted acreages in North America.
- // Our **Insecticides** business reported an increase in sales that was primarily attributable to higher prices in Europe/Middle East/Africa. Lower volumes in Asia/Pacific and North America were offset by increased volumes in Latin America in particular.
- // Sales at **Cotton Seed** decreased sharply, mainly due to lower planted acreages in North America.
- // Business at **Vegetable Seeds** developed positively thanks to price increases in all regions.
- // The reporting unit "**Other**" recorded a decrease in sales, with prices falling at the Industrial Turf & Ornamental (IT&O) unit but rising in the SeedGrowth business.

Earnings

EBITDA before special items at Crop Science fell by 26.6% to €5,038 million in 2023 (2022: €6,867 million), mainly due to significant price declines for our glyphosate-based products. Earnings were also diminished by a mainly inflation-related increase in the cost of goods sold. By contrast, the expense for the Group-wide short-term incentive (STI) program declined due to the lower target attainment level. Insurance payouts for the loss of production in 2021 as a result of Hurricane Ida also had a positive impact. There was also a positive currency effect of €103 million (2022: €284 million). The EBITDA margin before special items declined by 5.6 percentage points to 21.7%.

EBIT came in at minus €3,486 million in 2023 (2022: €2,950 million) after net special charges of €6,034 million (2022: €1,460 million) that primarily related to impairment losses. There were impairment losses of €6,690 million on goodwill, largely due to an increase in the weighted average cost of capital. A deterioration in business prospects and an inflation-driven rise in costs also had a negative impact. Impairment losses were also recognized in the cash-generating units glyphosate (€562 million), due to a significant reduction in market price expectations, and Cotton Seed (€392 million), largely as a result of persistent competitive pressure.

By contrast, impairment loss reversals were recorded in the cash-generating units Soybean Seed & Traits (€988 million) and Corn Seed & Traits (€551 million). The impairment loss reversal for Soybean Seed & Traits largely pertained to the second quarter, where reduced expectations for the cost of goods sold as a result of decreased commodity prices had a positive impact. The impairment loss reversal for Corn Seed & Traits primarily related to the fourth quarter and was largely attributable to a decline in the weighted average cost of capital against the third quarter.

A 2.2.2/3

Special Items[1] Crop Science

€ million	EBIT Q4 2022	EBIT Q4 2023	EBIT 2022	EBIT 2023	EBITDA Q4 2022	EBITDA Q4 2023	EBITDA 2022	EBITDA 2023
Restructuring	(46)	(38)	(91)	(111)	(29)	(38)	(74)	(111)
Acquisition/integration	(2)	–	4	(18)	(2)	–	4	(18)
Divestments	734	(4)	648	(21)	734	(4)	648	(21)
Litigations/legal risks	(10)	57	113	85	(10)	57	113	85
Impairment losses/loss reversals	(801)	561	(2,125)	(5,969)	(1)	(1)	(3)	(5)
Other	(1)	3	(9)	–	(1)	4	(9)	–
Total special items	**(126)**	**579**	**(1,460)**	**(6,034)**	**691**	**18**	**679**	**(70)**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Fourth quarter of 2023

Sales

Sales advanced by 6.0% (Fx & portfolio adj.) to €5,630 million in the fourth quarter, largely thanks to higher volumes in Latin and North America. **Corn Seed & Traits** posted an increase in sales, especially in North and Latin America, with growth mainly driven by higher prices. Business at **Herbicides** was down, largely due to a fall in sales of glyphosate-based products as lower prices were only partly offset by higher volumes. **Fungicides** posted substantial growth, with business mainly up in Latin and North America due to increased volumes. Sales grew at **Soybean Seed & Traits**, primarily thanks to higher license revenues in Latin America. We recorded substantial gains at **Insecticides**, largely due to higher volumes in Latin America. Sales at **Cotton Seed** declined by a double-digit percentage, mainly as a result of lower planted acreages in Asia/Pacific. **Vegetable Seeds** posted higher sales in all regions, while business in the reporting unit “**Other**” was up, predominantly thanks to higher volumes.

Earnings

EBITDA before special items rose by 30.5% to €1,070 million in the fourth quarter (Q4 2022: €820 million), primarily due to insurance payouts for the loss of production in 2021 as a result of Hurricane Ida. By contrast, earnings were diminished by an increase in costs, particularly in the cost of goods sold, which was mainly due to high inflation. There was a positive currency effect of €24 million (Q4 2022: €64 million). The EBITDA margin before special items increased by 4.3 percentage points to 19.0%.

EBIT increased to €975 million in the fourth quarter (Q4 2022: €127 million) after net special gains of €579 million (Q4 2022: net special charges of €126 million) that related to net impairment loss reversals on intangible assets. We recorded impairment losses on goodwill (€633 million) that were mainly attributable to a deterioration in business prospects and an inflation-driven increase in costs. By contrast, we recognized impairment loss reversals in the cash-generating units Corn Seed & Traits (€1,130 million) and Soybean Seed & Traits (€65 million) that were largely due to a decline in the weighted average cost of capital overall.

Pharmaceuticals

Market

The pharmaceuticals market grew by around 9% in 2023. The World Health Organization declared the end of the COVID-19 pandemic on May 5, 2023, by which time at the latest focus had returned to preventing and treating diseases with the aid of existing and innovative products. Immunology, endocrinology and oncology were the growth drivers.

A 2.2.2/4

Key Data – Pharmaceuticals

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Sales	**4,855**	**4,579**	**– 5.7**	**+ 1.7**	**19,252**	**18,081**	**– 6.1**	**– 0.4**
Change in sales[1]								
Volume	– 3.4%	+ 4.0%			+ 1.3%	+ 0.8%		
Price	+ 0.6%	– 2.3%			– 0.2%	– 1.2%		
Currency	+ 1.8%	– 7.0%			+ 3.9%	– 5.1%		
Portfolio	– 0.9%	– 0.4%			– 0.1%	– 0.6%		
Sales by region								
Europe/Middle East/Africa	1,882	1,866	– 0.9	+ 5.4	7,424	7,198	– 3.0	+ 1.7
North America	1,286	1,221	– 5.1	– 0.0	4,772	4,765	– 0.1	+ 3.2
Asia/Pacific	1,428	1,252	– 12.3	– 5.4	6,051	5,143	– 15.0	– 7.8
Latin America	259	240	– 7.3	+ 22.3	1,005	975	– 3.0	+ 12.6
EBITDA[1]	**1,715**	**1,233**	**– 28.1**		**6,212**	**5,021**	**– 19.2**	
Special items[1]	282	(33)			339	(168)		
EBITDA before special items[1]	**1,433**	**1,266**	**– 11.7**		**5,873**	**5,189**	**– 11.6**	
EBITDA margin before special items[1]	29.5%	27.6%			30.5%	28.7%		
EBIT[1]	**1,425**	**935**	**– 34.4**		**4,985**	**3,971**	**– 20.3**	
Special items[1]	282	(87)			249	(224)		
EBIT before special items[1]	**1,143**	**1,022**	**– 10.6**		**4,736**	**4,195**	**– 11.4**	
Net cash provided by operating activities	**1,061**	**1,169**	**+ 10.2**		**3,588**	**3,409**	**– 5.0**	
Cash flow-relevant capital expenditures	420	413	– 1.7		1,045	1,064	+ 1.8	
Research and development expenses[2]	839	867	+ 3.3		3,397	3,327	– 2.1	

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] After special items and depreciation/amortization/impairments

Sales

Sales at Pharmaceuticals came in at €18,081 million in 2023, and were therefore in line with the prior year (Fx & portfolio adj. –0.4%). We registered significant gains for our new products Nubeqa™ and Kerendia™, and also posted continued sales growth for Eylea™ and our Radiology business. By contrast, we saw a significant drop in sales in China, in part due to pandemic-related developments at the start of the year and tender procedures for Adalat™. In addition, China’s anti-corruption campaign in the healthcare sector indirectly had a negative impact on demand in the second half of the year.

A 2.2.2/5

Best-Selling Pharmaceuticals Products

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Xarelto™	1,204	1,047	−13.0	−8.5	4,516	4,081	−9.6	−6.1
Eylea™	821	826	+0.6	+6.7	3,213	3,231	+0.6	+5.6
Mirena™/Kyleena™/Jaydess™	299	270	−9.7	−2.1	1,277	1,209	−5.3	−0.8
Nubeqa™	158	258	+63.3	+71.9	466	869	+86.5	+93.6
Kogenate™/Kovaltry™/Jivi™	206	181	−12.1	−7.8	847	738	−12.9	−9.8
YAZ™/Yasmin™/Yasminelle™	184	166	−9.8	+7.2	790	670	−15.2	−4.6
Adempas™	169	174	+3.0	+9.9	652	660	+1.2	+4.6
Aspirin™ Cardio	201	164	−18.4	−8.9	788	626	−20.6	−13.8
Adalat™	148	128	−13.5	−7.7	831	563	−32.3	−27.2
Stivarga™	155	119	−23.2	−16.0	613	523	−14.7	−8.9
CT Fluid Delivery[2]	135	135	0.0	+8.9	494	513	+3.8	+8.5
Ultravist™	101	116	+14.9	+29.2	436	474	+8.7	+18.3
Gadovist™ product family	106	110	+3.8	+15.0	469	463	−1.3	+5.0
Kerendia™	48	85	+77.1	+86.9	107	270	+152.3	+160.6
Betaferon™/Betaseron™	77	57	−26.0	−22.3	311	232	−25.4	−23.6
Total best-selling products	**4,012**	**3,836**	**−4.4**	**+2.6**	**15,810**	**15,122**	**−4.4**	**+0.6**
Proportion of Pharmaceuticals sales	83%	84%			82%	84%		

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] 2022 figures restated; CT Fluid Delivery comprises injection systems marketed primarily as part of the Stellant™ product family.

- // As expected, sales of our oral anticoagulant **Xarelto™** declined as a result of competitive and pricing pressure from generics, especially in China and the United Kingdom. License revenues – recognized as sales – in the United States, where Xarelto™ is marketed by a subsidiary of Johnson & Johnson, were down against the prior year.
- // Despite lower prices in Europe, we recorded encouraging sales growth for our ophthalmology drug **Eylea™**, driven by higher volumes in all regions, particularly in Canada and Europe.
- // Sales of our cancer drug **Nubeqa™** nearly doubled, with gains in all regions. The product therefore maintained its growth momentum, especially in the United States and Europe, with significant increases in volumes.
- // We also achieved considerable gains with **Kerendia™**, our product for the treatment of patients with chronic kidney disease associated with type 2 diabetes, mainly thanks to a substantial rise in volumes in the United States.
- // Sales of our **Kogenate™/Kovaltry™/Jivi™** blood-clotting medicines fell significantly as a result of competitive pressure, particularly in the United States and China. The declines for Kogenate™ and Kovaltry™ were only partly offset by gains for Jivi™.
- // Sales of our pulmonary hypertension treatment **Adempas™** increased thanks to higher prices and volumes. As in the past, sales reflected the proportionate recognition of the upfront and milestone payments resulting from the sGC collaboration with Merck & Co., United States.
- // Sales of **Aspirin™ Cardio**, our product for secondary prevention of heart attacks, and our cancer drug **Stivarga™** fell markedly against a strong prior year, with business down in China in particular.
- // Our Radiology business, which includes **CT Fluid Delivery, Ultravist™** and **Gadovist™**, continued to perform very well due to increased volumes and prices in all regions.

Earnings

EBITDA before special items declined by 11.6% to €5,189 million in 2023. This was primarily due to an unfavorable product mix, inflation-driven cost increases, and higher R&D investments in our cell and gene therapy and chemoproteomics technologies, as well as in projects in advanced clinical development. By contrast, earnings benefited from lower costs for marketing activities and, to a lesser extent, an increase in income from the sale of noncore businesses. There was a negative currency effect of €221 million (2022: positive currency effect of €9 million). The EBITDA margin before special items declined by 1.8 percentage points to 28.7%.

EBIT at Pharmaceuticals declined by a substantial 20.3% to €3,971 million after net special charges of €224 million (2022: net special gains of €249 million). The special charges primarily pertained to ongoing restructuring projects and impairment losses resulting mainly from extended development cycles in ongoing projects. By contrast, special gains arose from the measurement of contingent considerations at fair value.

A 2.2.2/6

Special Items[1] Pharmaceuticals

€ million	EBIT Q4 2022	EBIT Q4 2023	EBIT 2022	EBIT 2023	EBITDA Q4 2022	EBITDA Q4 2023	EBITDA 2022	EBITDA 2023
Restructuring	(164)	(15)	(326)	(195)	(164)	(15)	(326)	(193)
Acquisition/integration	–	–	(4)	–	–	–	(4)	–
Divestments	462	6	682	(22)	462	6	682	(22)
Litigations/legal risks	10	1	15	(14)	10	1	15	(14)
Impairment losses/loss reversals	–	(54)	(90)	(54)	–	–	–	–
Other	(26)	(25)	(28)	61	(26)	(25)	(28)	61
Total special items	**282**	**(87)**	**249**	**(224)**	**282**	**(33)**	**339**	**(168)**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Fourth quarter of 2023

Sales

Sales at Pharmaceuticals increased by 1.7% (Fx & portfolio adj.) to €4,579 million in the fourth quarter. Significant gains for our new products Nubeqa™ and Kerendia™ were mostly offset by a decline in sales in China that was partly due to tender procedures and the anticorruption campaign in the country’s healthcare sector.

Xarelto™ sales were down against the prior-year quarter, mainly due to considerable declines in China. By contrast, we recorded encouraging gains for **Eylea™** that were largely attributable to volume growth in Europe, Canada and China. **Nubeqa™** sales increased significantly, with gains in all regions. Higher volumes in the United States and Europe had a particularly positive impact on business. We also registered substantial gains for **Kerendia™**, especially in the United States. The considerable increase in **Adempas™** sales was likewise driven primarily by gains in the United States. Sales of **Kogenate™/Kovaltry™/Jivi™** fell as a result of competitive pressure, particularly in the United States and China. The declines for Kogenate™ and Kovaltry™ were only partly offset by gains for Jivi™. We also recorded substantial declines for **Aspirin™ Cardio** and **Stivarga™**, with business primarily down in China. In addition, tender procedures in China weighed on **Adalat™** sales. Our Radiology business, which includes **CT Fluid Delivery, Ultravist™** and **Gadovist™**, increased sales by a double-digit percentage thanks to higher volumes and prices.

Earnings

EBITDA before special items fell by 11.7% to €1,266 million in the fourth quarter (Q4 2022: €1,433 million). This was primarily due to higher R&D investments in our cell and gene therapy and chemoproteomics technologies, as well as in projects in advanced clinical development, along with inflation-driven cost increases. By contrast, earnings benefited from a year-on-year increase in income from the sale of noncore businesses. There was a negative currency effect of €128 million (Q4 2022: €11 million). The EBITDA margin before special items declined by 1.9 percentage points to 27.6%.

EBIT at Pharmaceuticals decreased by a substantial 34.4% to €935 million after net special charges of €87 million (Q4 2022: net special gains of €282 million). The special charges primarily related to impairment losses resulting mainly from extended development cycles in ongoing projects, and to the measurement of contingent considerations at fair value.

Consumer Health

Market

The global consumer health market grew by around 5% in 2023. Overall market growth was due to strong demand for cough and cold as well as digestive health products.

A 2.2.2/7

Key Data – Consumer Health

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Sales	**1,524**	**1,578**	**+3.5**	**+14.1**	**6,080**	**6,027**	**−0.9**	**+6.3**
Changes in sales[1]								
Volume	−0.8%	+3.0%			+2.2%	−2.9%		
Price	+6.6%	+11.1%			+6.2%	+9.2%		
Currency	+2.3%	−10.3%			+6.0%	−6.9%		
Portfolio	+0.4%	−0.3%			+0.5%	−0.3%		
Sales by region								
Europe/Middle East/Africa	496	535	+7.9	+18.4	1,921	1,967	+2.4	+9.3
North America	638	624	−2.2	+3.7	2,458	2,352	−4.3	−0.9
Asia/Pacific	230	247	+7.4	+14.2	967	938	−3.0	+3.6
Latin America	160	172	+7.5	+42.6	734	770	+4.9	+26.1
EBITDA[1]	**291**	**362**	**+24.4**		**1,320**	**1,368**	**+3.6**	
Special items[1]	(22)	(22)			(47)	(43)		
EBITDA before special items[1]	**313**	**384**	**+22.7**		**1,367**	**1,411**	**+3.2**	
EBITDA margin before special items[1]	20.5%	24.3%			22.5%	23.4%		
EBIT[1]	**195**	**424**	**+117.4**		**957**	**1,158**	**+21.0**	
Special items[1]	(22)	131			(47)	110		
EBIT before special items[1]	**217**	**293**	**+35.0**		**1,004**	**1,048**	**+4.4**	
Net cash provided by operating activities	**317**	**443**	**+39.7**		**1,046**	**951**	**−9.1**	
Cash flow-relevant capital expenditures	74	53	−28.4		173	142	−17.9	
Research and development expenses	67	65	−3.0		221	224	+1.4	

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Sales

Sales at Consumer Health increased by an encouraging 6.3% (Fx & portfolio adj.) to €6,027 million in 2023 against a strong prior year. We registered double-digit percentage growth at Dermatology, partly thanks to continued strong demand for Bepanthen™ and Canesten™, as well as at Pain & Cardio. We also significantly increased sales of cough and cold products amid a strong cold season, especially in Europe. Our allergy business expanded slightly despite a weaker allergy season due to weather-related factors. The Digestive Health category likewise saw a slight increase in sales, while business at Nutritionals was at the prior-year level.

A 2.2.2/8

Sales by Category

€ million	Q4 2022	Q4 2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.	2022	2023	Change (%)[1] Reported	Change (%)[1] Fx & p adj.
Consumer Health	**1,524**	**1,578**	**+3.5**	**+14.1**	**6,080**	**6,027**	**−0.9**	**+6.3**
Nutritionals	374	375	+0.3	+9.5	1,563	1,432	−8.4	−0.4
Allergy & Cold	376	388	+3.2	+8.0	1,377	1,433	+4.1	+6.8
Dermatology	317	345	+8.8	+18.8	1,287	1,352	+5.1	+12.1
Pain & Cardio	222	217	−2.3	+23.8	905	873	−3.5	+11.5
Digestive Health	223	240	+7.6	+14.4	895	878	−1.9	+2.3
Other	12	13	+8.3	+41.7	53	59	+11.3	+30.2

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

- Sales in the **Europe/Middle East/Africa** region rose by a substantial 9.3% (Fx & portfolio adj.) to €1,967 million, with business up in all categories. Growth was mainly driven by the Dermatology category, largely due to continued strong demand for Bepanthen™ and Canesten™. The Allergy & Cold category posted significant gains, with strong contributions from the Aspirin™ and Claritin™ product families. We also recorded double-digit percentage growth at Pain & Cardio, primarily thanks to Saridon™. Despite temporary supply constraints, the Digestive Health category saw continued sales growth, partly due to gains for Rennie™.
- Sales in **North America** were level with the prior year, at €2,352 million (Fx & portfolio adj. –0.9%). In the second half of the year, we encountered a weaker market environment overall that was largely reflected in inventory reductions by our customers and more subdued consumer demand. This resulted in moderate declines in business in the Nutritionals, Digestive Health and Pain & Cardio categories in particular. By contrast, our Allergy & Cold business posted a slight increase in sales against a strong prior year, mainly thanks to Afrin™. Sales were also up at Dermatology.
- Sales in **Asia/Pacific** rose by 3.6% (Fx & portfolio adj.) to €938 million. We posted significant growth in the Dermatology category that was partly driven by gains for our Kang Wang™ and Pi Kang Wang™ products, which are marketed in China. The Allergy & Cold, Pain & Cardio and Digestive Health categories also registered double-digit percentage growth. Our Nutritionals business declined markedly, in part due to a weaker market environment in China and Southeast Asia.
- Sales in **Latin America** increased by a strong 26.1% (Fx & portfolio adj.) to €770 million, with growth in all categories. Business expanded particularly strongly in the Pain & Cardio and Dermatology categories, with Actron™ and Bepanthen™ among the drivers.

Earnings

EBITDA before special items rose by 3.2% to €1,411 million in 2023 (2022: €1,367 million), while the EBITDA margin before special items advanced by a substantial 0.9 percentage points to 23.4%. These increases were driven by our multi-year efficiency program, successful price management and sustained sales growth, which more than offset a strong rise in costs due to inflation as well as higher investments in marketing our innovative products. There was a negative currency effect of €133 million (2022: positive currency effect of €85 million).

EBIT at Consumer Health came in at €1,158 million (2022: €957 million) after net special gains of €110 million (2022: special charges of €47 million) relating primarily to impairment loss reversals that were largely attributable to a decline in the weighted average cost of capital in the fourth quarter against the third quarter of 2023. By contrast, there were special charges relating to restructuring.

A 2.2.2/9

Special Items[1] Consumer Health

€ million	EBIT Q4 2022	EBIT Q4 2023	EBIT 2022	EBIT 2023	EBITDA Q4 2022	EBITDA Q4 2023	EBITDA 2022	EBITDA 2023
Restructuring	(22)	(22)	(47)	(43)	(22)	(22)	(47)	(43)
Impairment losses/loss reversals	–	153	–	153	–	–	–	–
Total special items	**(22)**	**131**	**(47)**	**110**	**(22)**	**(22)**	**(47)**	**(43)**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Fourth quarter of 2023

Sales

Sales at Consumer Health advanced by a substantial 14.1% (Fx & portfolio adj.) to €1,578 million in the fourth quarter of 2023, with gains in all regions and categories amid an improved supply situation overall. We reported significant growth at Pain & Cardio, thanks to Actron™, and at Dermatology, driven by Bepanthen™. Sales also increased considerably at Nutritionals and Digestive Health, partly due to gains for Elevit™ in Asia/Pacific and for MiraLAX™ in North America. We again registered substantial sales increases for our cough and cold products, including the Aspirin™ product family, against a strong prior-year quarter. Growth was particularly strong in Europe, driven by elevated cold incidence rates. In addition, sales of allergy products rose slightly.

Earnings
EBITDA before special items rose by 22.7% to €384 million in the fourth quarter of 2023 (Q4 2022: €313 million) thanks to the substantial increase in sales as well as our successful cost and price management efforts. We achieved this growth in earnings despite a strong rise in costs due to inflation as well as higher investments in marketing our innovative products. There was a negative currency effect of €41 million (Q4 2022: positive currency effect of €2 million). The EBITDA margin before special items increased by a substantial 3.8 percentage points to 24.3%.

EBIT at Consumer Health came in at €424 million (Q4 2022: €195 million) after net special gains of €131 million (Q4 2022: special charges of €22 million) relating primarily to impairment loss reversals that were largely attributable to a decline in the weighted average cost of capital in the fourth quarter against the third quarter of 2023. By contrast, there were special charges relating to restructuring.

2.2.3 Value-Based Performance

A 2.2.3/1

Value-Based Performance

	Crop Science		Pharmaceuticals		Consumer Health		Group[2]	
€ million	2022	2023	2022	2023	2022	2023	2022	2023
EBIT[1]	2,950	(3,486)	4,985	3,971	957	1,158	7,012	612
Income taxes[3]	(708)	837	(1,196)	(953)	(230)	(278)	(1,683)	(147)
NOPAT[1]	2,242	(2,649)	3,789	3,018	727	880	5,329	465
Average capital employed[1]	41,838	40,326	19,696	20,591	9,676	9,648	69,270	68,700
ROCE[1]	5.4%	–6.6%	19.2%	14.7%	7.5%	9.1%	7.7%	0.7%
WACC[1, 4]	6.1%	5.7%	6.1%	5.7%	6.1%	5.7%	6.1%	5.7%

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Including Reconciliation
[3] 24% on EBIT; based on historical average of tax rates
[4] At the divisional level, ROCE is compared with the WACC of the Bayer Group as we do not report WACC for the individual divisions.

Bayer’s ROCE in 2023 amounted to 0.7% (2022: 7.7%) and was therefore below the cost of capital (5.7%). Compared with the previous year, ROCE fell at Crop Science and Pharmaceuticals but improved at Consumer Health.

In the Crop Science Division, the decline in operating profit coupled with special charges from impairment losses resulted in negative EBIT and ROCE. The average capital employed also decreased due to the impairment losses; this effect was partly offset by a decrease in provisions for litigations due primarily to payments to resolve legal proceedings, as well as by the increase in the capital base in 2022.

At Pharmaceuticals, lower operating profit and higher special charges due to the absence of prior-year divestment gains resulted in a decline in EBIT, thus yielding lower ROCE. ROCE was also diminished by the increase in the average capital employed that was partly due to milestone payments in connection with business combinations made in previous years and the decline in the respective liabilities.

Consumer Health registered higher EBIT, driven by increased operating profit and special gains from impairment loss reversals, and a stable capital base, and therefore saw its ROCE improve.

The following overview shows the components of the average capital employed used in calculating ROCE.

A 2.2.3/2

Components of Capital Employed[1]

€ million	Dec. 31, 2022	Dec. 31, 2023
Goodwill	39,648	32,299
Other intangible assets	24,183	23,363
Property, plant and equipment	13,674	13,321
Other financial assets[2]	172	152
Inventories	13,636	13,947
Trade accounts receivable	10,312	9,343
Other receivables[2]	2,066	2,104
Deferred tax assets[2]	4,334	4,267
Claims for income tax refunds	1,507	1,442
Assets held for sale	3	51
Gross capital employed	**109,535**	**100,289**
Other provisions[2]	(13,385)	(10,733)
Trade accounts payable	(7,545)	(7,456)
Other liabilities[2]	(4,531)	(2,560)
Refund liabilities	(5,593)	(5,477)
Contract liabilities	(4,723)	(4,292)
Financial liabilities[2]	(5)	(2)
Deferred tax liabilities[2]	(606)	(650)
Income tax liabilities	(2,728)	(2,142)
Capital employed[1]	**70,419**	**66,977**
Average capital employed[1]	**69,270**	**68,700**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Selected items forming part of the line item in the statement of financial position; items that were predominantly non-interest-bearing or nonoperating in nature were eliminated from capital employed.

2.2.4 Asset and Financial Position of the Bayer Group

Financial management of the Bayer Group

The financial management of the Bayer Group is conducted centrally. Capital is a global resource, generally procured centrally and distributed within the Bayer Group. The foremost objectives of our financial management are to help bring about a sustained increase in corporate value and to ensure the Group’s liquidity and creditworthiness. This involves optimizing the capital structure and effectively managing risks. The management of currency, interest-rate, commodity-price and default risks helps to reduce the volatility of our earnings.

The contracted rating agencies assess Bayer as follows:

A 2.2.4/1

Rating

Rating agency	Long-term rating	Short-term rating	Outlook
S&P Global Ratings	BBB	A-2	positive
Moody’s	Baa2	P-2	negative
Fitch Ratings	BBB+	F2	negative

These investment grade ratings from all three agencies reflect the company's high solvency and ensure access to a broad investor base for financing purposes. We have the ambition to reduce our financial debt considerably, to increase profit and cash flow and to improve our current investment grade ratings toward the "A" category.

As a matter of principle, we pursue a prudent debt management strategy to ensure flexibility, drawing on a balanced financing portfolio. This is fundamentally based on bonds in various currencies, syndicated credit facilities, bilateral loan agreements and a global commercial paper program.

We use financial derivatives to hedge against risks arising from business operations or financial transactions but do not employ contracts in the absence of an underlying transaction. It is our policy to diminish default risks by selecting trading partners with a high credit standing. We closely monitor the execution of all transactions, which are conducted in accordance with Group-wide policies.

Liquidity and Capital Expenditures of the Bayer Group

A 2.2.4/2

Bayer Group Summary Statements of Cash Flows

€ million	Q4 2022	Q4 2023	2022	2023
Net cash provided by (used in) operating activities (total)	**3,061**	**5,607**	**7,093**	**5,117**
Net cash provided by (used in) investing activities (total)	**67**	**(3,885)**	**(2,381)**	**(3,517)**
Net cash provided by (used in) financing activities (total)	**(2,141)**	**(2,453)**	**(4,220)**	**(679)**
Change in cash and cash equivalents due to business activities	**987**	**(731)**	**492**	**921**
Cash and cash equivalents at beginning of period	**4,365**	**6,815**	**4,564**	**5,171**
Change due to exchange rate movements and to changes in scope of consolidation	(181)	(177)	115	(185)
Cash and cash equivalents at end of period	**5,171**	**5,907**	**5,171**	**5,907**

Net cash provided by operating activities

Net operating cash flow amounted to €5,117 million in 2023 (2022: 7,093 million). Payments to resolve proceedings in the litigations surrounding dicamba, Essure™ and particularly PCBs and glyphosate led to a net outflow of €2,089 million (2022: €1,165 million). That total comprised payments resulting from settlement agreements as well as court judgments. Net operating cash flow also included payments of €411 million (2022: €0 million) from banks from the transfer of trade receivables that were not yet due or settled by customers as of December 31, 2023.

Net cash used in investing activities

Net cash used in investing activities amounted to €3,517 million in 2023 (2022: €2,381 million). Cash outflows for property, plant and equipment and intangible assets decreased to €2,751 million (2022: €2,949 million), with the decline mainly attributable to the Crop Science Division. Cash inflows from the sale of property, plant and equipment and other assets amounted to €215 million (2022: €1,130 million). These inflows partly resulted from the sale of rights to our dermatological products A+D™, Solarcaine™, Cortate™ and Complex 15™ (€62 million) and our hormone replacement products Progynova™ and Cyclo-Progynova™ (€68 million). Outflows for noncurrent financial assets amounted to €332 million (2022: €1,182 million). Of the high prior-year figure, €557 million was attributable to Bayer-Pensionskasse VVaG and Rheinische Pensionskasse VVaG drawing on their effective initial funds. Outflows for acquisitions, less acquired cash, amounted to €662 million (2022: €89 million) and largely related to milestone payments in connection with the acquisition of US-based Asklepios BioPharmaceutical, Inc. (AskBio) and Vividion Therapeutics, Inc., and the UK company Blackford Analysis Ltd. The net cash outflow for current financial assets came to €113 million (2022: €1,828 million), and primarily pertained to investments in money market funds due to newly placed bonds.

Net cash used in financing activities

There was a net cash outflow of €679 million for financing activities (2022: €4,220 million). This figure included net borrowings of €3,253 million (2022: net loan repayments of €974 million). Net interest payments increased to €1,506 million (2022: €1,251 million). The Bayer Group paid out €2,379 million in dividends (2022: €1,985 million).

Free cash flow

Free cash flow (total), which is the total operating cash flow less capital expenditures plus interest and dividends received less interest paid, was €1,311 million in 2023 (2022: €3,111 million).

Capital expenditures

A 2.2.4/3

Cash Flow-Relevant Capital Expenditure for Property, Plant and Equipment and for Intangible Assets

€ million	2022	2023
Crop Science	1,486	1,268
Pharmaceuticals	1,045	1,064
Consumer Health	173	142
Reconciliation	245	277
Group[1]	**2,949**	**2,751**

[1] Group total including continuing and discontinued operations

Crop Science continuously invests in a variety of projects within its global production network for crop protection products and seeds as well as in research, development and digital transformation. The largest capital expenditure projects in 2023 included investments in the sourcing of an important raw material used in the production of glyphosate in the United States (around €156 million). Crop Science also invested in the expansion of research and development facilities at its site in Monheim, Germany (around €16 million), as well as in the expansion of fungicide production in Germany (around €25 million). Furthermore, an additional sum of around €23 million was invested in the expansion of corn seed production capacities in Ukraine (Pochuyki) in 2023. Alongside these projects, the development of digital solutions for our customers was a key investment in 2023 and will remain so in the coming years.

At **Pharmaceuticals**, the largest expenditures for property, plant, and equipment in 2023 were for cell and gene therapy research and production facilities in the United States, Spain, Germany, the United Kingdom and Canada (around €132 million); modernization programs for the production network of our product supply organization at the sites in Turku, Finland; Leverkusen and Weimar, Germany; and Garbagnate, Italy (around €103 million); the construction of a new production facility for solid launch products in Leverkusen, Germany (around €83 million); and the development of a multi-purpose facility in Wuppertal, Germany, for the production of active ingredients (around €42 million). Capital expenditure for intangible assets included milestone payments to Hua Medicine (Shanghai) Co., Ltd., China (around €149 million).

At approximately €26 million, **Consumer Health**’s largest investment in 2023 was again the GMP[16] upgrade program across its global production sites.

[16] Good manufacturing practice

A 2.2.4/4

Material Capital Expenditures for Property, Plant and Equipment

		2022	2023
Crop Science	Expansion of fungicide production capacities in Dormagen, Germany	Ongoing	Ongoing
	Expansion of research and development facilities in Monheim, Germany	Ongoing	Ongoing
	Expansion of research and development facilities in Petrolina, Brazil	Ongoing	Ongoing
	IT solutions to support digital transformation	Ongoing	Ongoing
	Sourcing of a raw material used in the production of glyphosate in Soda Springs, United States	Ongoing	Ongoing
	Implementation of sustainability measures in Soda Springs, United States	Ongoing	Ongoing
	Expansion of corn seed production capacities in Pochuyki, Ukraine	Initiated	Ongoing
	Optimization of herbicide production at the site in Luling, United States	Ongoing	Ongoing
	Relocation of a production site in Hangzhou, China	Initiated	Ongoing
	Construction of a production site to increase seed production capacities in Lusaka, Zambia	–	Initiated
Pharmaceuticals	Modernization of production facilities at various sites across the production network (Leverkusen and Weimar, Germany; Garbagnate, Italy; Turku, Finland)	Ongoing	Ongoing
	Construction of a new research building (preclinical pharmacology) in Wuppertal (Aprath), Germany	Ongoing	Completed
	Modernization of research facilities in Berlin, Germany	Ongoing	Completed
	Construction of a sterile filling plant for launch products in Berlin, Germany	Ongoing	Ongoing
	Expansion of packaging capacities in Beijing, China	Ongoing	Completed
	Construction of a new production facility for solid launch products in Leverkusen, Germany	Ongoing	Ongoing
	Construction of research and production facilities for cell and gene therapies in various countries including the United States, Spain, Germany, Canada and the United Kingdom	Ongoing	Ongoing
	Construction of a new production site in Costa Rica	Ongoing	Ongoing
	Construction of a new multi-purpose facility for active ingredient production in Wuppertal, Germany	Ongoing	Ongoing
	Integration of investigational drug production into the new production facility for launch products in Leverkusen, Germany	Ongoing	Ongoing
	Modernization of production facilities in Berlin, Germany, with a focus on the radiology portfolio and other parenteral products	Ongoing	Ongoing
	Production of active ingredient asundexian in Wuppertal and Bergkamen, Germany	Ongoing	Ongoing
Consumer Health	Upgrade of global production site facilities to new GMP standards	Ongoing	Ongoing

Liquid assets and net financial debt

A 2.2.4/5

Net Financial Debt[1]

€ million	Dec. 31, 2022	Dec. 31, 2023	Change (%)
Bonds and notes	36,602	40,852	+ 11.6
of which hybrid bonds[2]	4,528	4,878	+ 7.7
Liabilities to banks[3]	3,484	784	− 77.5
Lease liabilities	1,234	1,238	+ 0.3
Liabilities from derivatives[4]	190	217	+ 14.2
Other financial liabilities	142	1,915	.
Receivables from derivatives[4]	(61)	(39)	− 36.1
Financial debt	**41,591**	**44,967**	**+ 8.1**
Cash and cash equivalents	(5,171)	(5,907)	+ 14.2
Current financial assets[5]	(4,611)	(4,562)	− 1.1
Net financial debt[1]	**31,809**	**34,498**	**+ 8.5**

[1] For more information see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Classified as debt according to IFRS
[3] Including both financial and nonfinancial liabilities
[4] Including the market values of interest-rate and currency hedges of recorded transactions
[5] Including short-term receivables with maturities between 3 and 12 months outstanding from banks and other companies as well as financial investments in debt and equity instruments that were recorded as current on first-time recognition

The Bayer Group's net financial debt increased by €2.7 billion to €34.5 billion in 2023. Cash inflows from operating activities and positive currency effects were unable to fully offset the outflow for the dividend payment and the settlement payments for the litigations in the United States.

Financial debt included seven subordinated hybrid bonds with a total volume of €4.9 billion, 50% of which is treated as equity by three contracted rating agencies. As such, the hybrid bonds have a positive impact on the Group's rating-specific debt indicators.

In 2023, Bayer AG placed new senior bonds with a total volume of €3 billion under its Debt Issuance Program. The three tranches with volumes of €750 million, €750 million and €1.5 billion have maturities of 3.25 years, 6.25 years and 10 years, respectively. The coupons of the notes are 4.000%, 4.250% and 4.625%, respectively. Bayer AG also repurchased €1.4 billion in hybrid bonds maturing in 2074 (callable on July 1, 2024) and 2079 (callable on February 12, 2025) before the first call date. To finance the repurchase, new hybrid bonds with a total volume of €1.75 billion were placed. The two tranches have a final maturity of 60 years. The first tranche in the amount of €750 million with a noncall period of 5.25 years pays a coupon of 6.625%. The second tranche in the amount of €1.0 billion with a noncall period of 8.25 years pays a coupon of 7.000%.

In addition, Bayer US Finance LLC, United States, placed bonds with a volume of US$5.75 billion (€5.3 billion). The five tranches with maturities of 3, 5.2, 7, 10 and 30 years have volumes of US$1.0 billion (€0.9 billion), US$1.0 billion (€0.9 billion), US$1.25 billion (€1.2 billion), US$1.75 billion (€1.6 billion), and US$0.75 billion (€0.7 billion) and coupons of 6.125%, 6.250%, 6.375%, 6.500% and 6.875%, respectively.

Furthermore, two bonds with a total volume of US$3.5 billion (€3.2 billion) and one bond with a volume of €500 million were redeemed at maturity in 2023.

The decline in liabilities to banks was attributable to the repayment of the €3 billion credit facility drawn in May 2022.

Other financial liabilities increased, primarily due to the issuance of commercial paper.

Asset and Capital Structure of the Bayer Group

A 2.2.4/6

Bayer Group Summary Statements of Financial Position

€ million	Dec. 31, 2022	Dec. 31, 2023	Change (%)
Noncurrent assets	**87,117**	**78,703**	**– 9.7**
Assets held for sale	3	51	.
Other current assets	37,757	37,505	– 0.7
Current assets	**37,760**	**37,556**	**– 0.5**
Total assets	**124,877**	**116,259**	**– 6.9**
Equity	**38,926**	**33,078**	**– 15.0**
Noncurrent liabilities	50,867	53,724	+ 5.6
Current liabilities	35,084	29,457	– 16.0
Liabilities	**85,951**	**83,181**	**– 3.2**
Total equity and liabilities	**124,877**	**116,259**	**– 6.9**

Between December 31, 2022, and December 31, 2023, total assets decreased by €8.6 billion to €116.3 billion.

// Noncurrent assets fell by €8.4 billion to €78.7 billion in 2023, mainly due to the impairment losses and impairment loss reversals recorded during the year (net effect of –€7.7 billion) and foreign currency effects impacting goodwill and intangible assets (–€1.4 billion).
// Total current assets declined by €0.2 billion to €37.6 billion. The primary factors here included the reduction in trade accounts receivable as a result of intensified receivables management (–€1.0 billion), and the increase in cash and cash equivalents (+€0.7 billion).
// Equity decreased by €5.8 billion during the year to €33.1 billion. The main factors here included the income after income taxes (–€2.9 billion), the dividend payment (–€2.4 billion), currency translation of equity items (–€0.7 billion), and changes – recognized outside profit or loss – arising from the remeasurement of the net defined benefit liability (+€0.3 billion). The equity ratio fell to 28.5% (2022: 31.2%).
// Liabilities declined by €2.8 billion to €83.2 billion. Other liabilities were diminished by settlement payments in connection with the PCB litigations in January 2023 (–€1.2 billion). Miscellaneous provisions declined by €2.7 billion overall, reflecting effects of –€0.9 billion for litigations, –€0.9 billion for variable, performance-related one-time payments to employees, –€0.4 billion for stock programs and –€0.4 billion for restructuring. In addition, there was a decline in miscellaneous liabilities for milestone payments in connection with the acquisition of US companies Asklepios BioPharmaceutical, Inc. (AskBio), BlueRock Therapeutics LP (BlueRock) and Vividion Therapeutics, Inc. (–€0.6 billion). Furthermore, provisions for pensions decreased due to a change in discount rates and the development of plan assets (–€0.4 billion). Financial liabilities increased by €3.3 billion overall. The main factors here included the issuance of new bonds (+US$5.75 billion bonds, +€3.0 billion senior bonds and +€1.75 billion hybrid bonds), the repayment of bonds (–€3.7 billion for bonds redeemed at maturity; –€1.4 billion for hybrid bonds repurchased before the first call date), the increase in commercial paper (+€1.8 billion) and the repayment of the credit line drawn in May 2022 (–€3.0 billion).
// Supply chain financing programs (also known as reverse factoring) are used in the Bayer Group that enable suppliers to choose to have individual invoices paid prior to their due date. As part of such programs, the supplier concludes a financing agreement with a bank or platform operator without Bayer's involvement and, upon request, is paid the invoice amount by the bank in advance less an interest component. Bayer generally pays the invoice amount to the bank when due; the payment deadlines lie within the usual scope for the industry. Bayer has assessed these programs based on various criteria and concluded that the associated liabilities retain the character of trade accounts payable. The related payments to the bank are therefore classified as a cash outflow from operating activities.

2.3 Alternative Performance Measures Used by the Bayer Group

The Combined Management Report and the Consolidated Financial Statements of the Bayer Group are prepared according to the applicable financial reporting standards. In addition to the disclosures and metrics these require, Bayer publishes alternative performance measures (APMs) that are not defined or specified in these standards and for which there are no generally accepted reporting formats. Bayer calculates APMs to enable a comparison of performance indicators over time and against those of other companies in its industry sectors. These APMs are calculated by making certain adjustments to items in the statement of financial position or the income statement prepared according to the applicable financial reporting standards. Such adjustments may result from differences in calculation or measurement methods, nonuniform business activities or special factors affecting the information value of these items. The APMs determined in this way apply to all periods and are used both internally for business management purposes and externally by analysts, investors and rating agencies to assess the company's performance. Bayer determines the following APMs:

// Change in sales (reported, currency-adjusted, currency- and portfolio-adjusted)
// EBITDA
// EBITDA before special items

// EBITDA margin before special items
// EBIT
// EBIT before special items
// Clean depreciation and amortization
// Core earnings per share
// Net financial debt
// Return on capital employed (ROCE)
// Net operating profit after tax (NOPAT)
// Capital employed
// Weighted average cost of capital (WACC)
// Free cash flow
// Forecast key financial data

The **(reported) change in sales** is a relative indicator. It shows the percentage by which sales varied from the previous year.

The **currency-adjusted or currency- and portfolio-adjusted change in sales** shows the percentage change in sales excluding the impact of exchange rate effects and, in the latter case, disregarding material acquisitions and divestments as well. Exchange rate effects are generally calculated on the basis of the functional currency valid in the respective country. An exception existed in Argentina, primarily in our crop protection business, where the currency effect was calculated on the basis of the US dollar instead of the functional currency.

EBITDA (earnings before interest, taxes, depreciation and amortization) encompasses earnings before the financial result, taxes, depreciation and impairment losses / loss reversals on property, plant and equipment, impairment losses on goodwill, and amortization and impairment losses/ loss reversals on other intangible assets. This performance indicator neutralizes the effects of the financial result along with distortions of operational performance that result from divergent depreciation and amortization methods and the exercise of measurement discretion. EBITDA is EBIT plus the amortization of intangible assets and the depreciation of property, plant and equipment, plus impairment losses and minus impairment loss reversals, recognized in profit or loss during the reporting period.

EBIT (earnings before interest and taxes) serves to present a company's performance while eliminating the effects of differences between local taxation systems and different financing activities.

EBITDA before special items and **EBIT before special items** show the development of the operational business irrespective of the effects of special items, i.e., special effects for the Bayer Group with regard to their nature and magnitude. These may include acquisition costs, divestments, litigations, restructuring, integration costs, impairment losses and impairment loss reversals. In the calculation of EBIT before special items and EBITDA before special items, special charges are added and special gains subtracted. **Clean depreciation and amortization** exclude the effect of (corresponding) special items on the depreciation and amortization figures.

The **EBITDA margin before special items** is a relative indicator used by Bayer for internal and external comparisons of operational earnings performance. It is the ratio of EBITDA before special items to net sales.

The APM **core earnings per share (core EPS)** from continuing operations is based on the concept of earnings per share (EPS) as defined in IAS 33.

Core EPS is calculated using the following method: Based on EBIT (as per the income statements), the special items, impairment losses on goodwill, amortization / impairment losses/ loss reversals on other intangible assets, impairment losses / loss reversals on property, plant and equipment and the accelerated depreciation included in special items are neutralized to determine **core EBIT**. This enables a comparison of performance over time. Core EBIT is reconciled to **core net income from continuing operations**. This is calculated by adding the core financial result to core EBIT. Special items in the financial result include nonrecurring financial expenses or income that are not part of our normal financing activities. These primarily pertain to changes in the fair value of equity instruments that are not held for medium- or long-term strategic purposes, as well as to nonrecurring financial expenses or income arising from acquisitions, divestments and litigations. Income taxes – net of special items – are then deducted from this figure to give core net income. Special items relating to income taxes include material effects from tax reforms, among other things.

Core EPS is then calculated by dividing core net income by the weighted average number of shares.

As core EPS is calculated for each interim reporting period, core EPS for the fiscal year or for each interim reporting period up to the respective closing date may deviate from the cumulated core EPS for the individual interim reporting periods.

Net financial debt is an important financial management indicator for the Bayer Group and is used both internally and externally in assessing its liquidity, capital structure and financial flexibility.

The **return on capital employed (ROCE)** measures the capital return over a specified period and is employed as a strategic indicator to evaluate value creation. It is the ratio of **net operating profit after taxes (NOPAT)** to the average **capital employed** in a fiscal year. NOPAT is calculated by subtracting income taxes from EBIT. Income taxes are calculated by multiplying EBIT by a uniform tax rate that is based on a historical average of tax rates.

The **capital employed** by Bayer is the total carrying amount of operational noncurrent and current assets, minus liabilities that are largely non-interest-bearing in character and/or would distort the capital base. An average value, calculated from the values at the end of the prior year and of the reporting year, is used to depict the change in capital employed during the reporting year.

The ROCE is compared to the **weighted average cost of capital (WACC)**, which is the return expected by the providers of equity and debt. If the ROCE exceeds the WACC, return expectations have been exceeded, indicating that value has been created.

The WACC is based on an after-tax approach and calculated at the start of the year as the weighted average of the equity and debt cost factors. The cost of equity is determined using the capital asset pricing model (CAPM), while the debt-capital cost factor is calculated based on the average returns of ten-year Eurobonds issued by industrial companies. Further information on the segment-specific capital cost factors used in impairment testing is provided in Note [4] to B Consolidated Financial Statements.

Free cash flow (FCF) is an alternative performance measure that is based on the cash flow from operating activities under IAS 7. FCF illustrates the cash flows available for paying dividends and reducing debt as well as for investing in innovation and acquisitions. It is calculated by subtracting cash outflows for additions to property, plant and equipment and intangible assets from the cash flow from operating activities from continuing and discontinued operations, adding interest and dividends received along with interest received from interest-rate swaps, and deducting interest paid including interest-rate swaps.

The forward-looking key performance indicators published in the **forecast for key financial data** are based on data that is determined in the course of our planning process. The key financial data in the forecast is determined in accordance with the applied accounting policies and with the calculation models for alternative performance measures described in this chapter.

3. Report on Future Perspectives and on Opportunities and Risks

3.1 Future Perspectives

3.1.1 Economic Outlook

World economic growth impacted by crises

Based on data from the International Monetary Fund (IMF), we expect the global economy to expand by a low single-digit percentage in 2024[17], with this below-average growth rate broadly on a par with 2023. Ongoing crises and wars will likely continue to weigh on the global economy, as will more restrictive monetary and fiscal policies.

We expect the global **seed and crop protection** market to recover in 2024, with moderate growth of approximately 2%[18] (2022: approximately –4%). Prices for agrochemical products, including glyphosate, are expected to stabilize and gradually return to normal levels. The continued organic growth of the crop protection segments, especially insecticides, is driving the growth of the overall crop protection market. The positive development anticipated in the seeds and traits segment will likely be driven by acreage increases in corn and soybeans, particularly in Latin America, with further growth coming from vegetable seeds and cereals. The potential impacts of current geopolitical events and disruptions will require further analysis.

We expect the **pharmaceuticals market** to expand by approximately 7%[19] in 2024 (2023: +9%). Innovative products will continue to drive growth and more than offset losses due to the expiration of patents. However, uncertainty remains over how heavily the pharmaceuticals market will be impacted by external factors such as the war in Ukraine, inflationary pressure and health system reforms.

At around 5%[20], we anticipate that growth of the **consumer health market** in 2024 will roughly be on a par with the 2023 level (+5%) as economic and pricing conditions stabilize and upper respiratory conditions continue to resume historical patterns.

3.1.2 Corporate Outlook

The following forecast is based on the current business development and our internal planning. To enhance the comparability of operational performance, we are also presenting this guidance on a currency-adjusted basis, applying the average monthly exchange rates from 2023.

Overall, it should be noted that a 1% appreciation (depreciation) of the euro against all other currencies would decrease (increase) sales by some €400 million on an annual basis.

[17] Source: International Monetary Fund (as of January 2024)
[18] Source: Bayer's estimate (as of January 2024), plus various local sources; currency-adjusted
[19] Source: IQVIA Market Prognosis (as of September 2023); all rights reserved; currency-adjusted
[20] Source: Bayer's estimate (as of November 2023), taking into account external sources; currency-adjusted

A 3.1.2/1

Forecast for 2024

	2023 figures		2024 currency-adjusted forecast		2024 forecast at closing rates on Dec. 31, 2023	
	€ billion	Fx & p adj. change (%)	€ billion	Fx & p adj. change (%)	€ billion	Fx & p adj. change (%)
Sales	**47.6**	**–1.2**	**47 to 49**	**–1 to +3**	**46 to 48**	**–1 to +3**
Crop Science	23.3	–3.7		–1 to +3		–1 to +3
Pharmaceuticals	18.1	–0.4		–4 to 0		–4 to 0
Consumer Health	6.0	+6.3		+3 to +6		+3 to +6
		Margin (%)		Margin (%)		Margin (%)
EBITDA before special items[1]	**11.7**	**24.6**	**10.7 to 11.3**		**10.4 to 11.0**	
Crop Science	5.0	21.7		20 to 22		20 to 22
Pharmaceuticals	5.2	28.7		26 to 29		24 to 27
Consumer Health	1.4	23.4		23 to 24		23 to 24
Financial result (core)[2]	**–1.9**		**~–2.3**		**~–2.2**	
Tax rate (core)[3]	**23.3%**		**~23%**		**~23%**	
Free cash flow[1]	**1.3**		**2 to 3**		**2 to 3**	
Net financial debt[1]	**34.5**		**32.5 to 33.5**		**32.5 to 33.5**	
Special items in EBIT	–7.0		–2 to –1		–2 to –1	
Special items in EBITDA	–1.1		–2 to –1		–2 to –1	
	€		€		€	
Core earnings per share[1]	**6.39**		**5.10 to 5.50**		**4.95 to 5.35**	

Fx & p adj. = currency- and portfolio-adjusted
[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] Financial result before special items
[3] (Income taxes + special items in income taxes + tax effects on adjustments) / (core EBIT + financial result + special items in financial result)

Potential estimation risks regarding special charges in connection with litigations are referenced in A 3.2 Opportunity and Risk Report.

3.2 Opportunity and Risk Report

3.2.1 Group-wide Opportunity and Risk Management System

As a global life science enterprise, we are exposed to a wide range of internal and external developments and events that could significantly impact the achievement of our financial and nonfinancial objectives. Opportunity and risk management is therefore an integral part of corporate management at Bayer.
We regard opportunities as positive deviations, and risks as negative deviations, from projected or target values for potential future developments. We augment our risk definition process by also taking into account any potential adverse effects that our business operations could have on people and/or the environment.

Opportunity management system

We identify opportunities as part of the annual planning cycle, during which we analyze internal and external factors that may affect our business. These may be factors of a social, economic or environmental nature, for example. Our planning process starts with a comprehensive analysis of the markets. We build on this by analyzing the respective market environments to identify opportunities. These analyses are based on different time periods since trends or developments may impact our business over the short, medium or long term. In addition, we identify and leverage opportunities as part of our regular business operations and through our daily observation of internal processes and markets. Depending on developments, factors affecting our business, such as market risks, may result in either risks or opportunities.

Risk management system

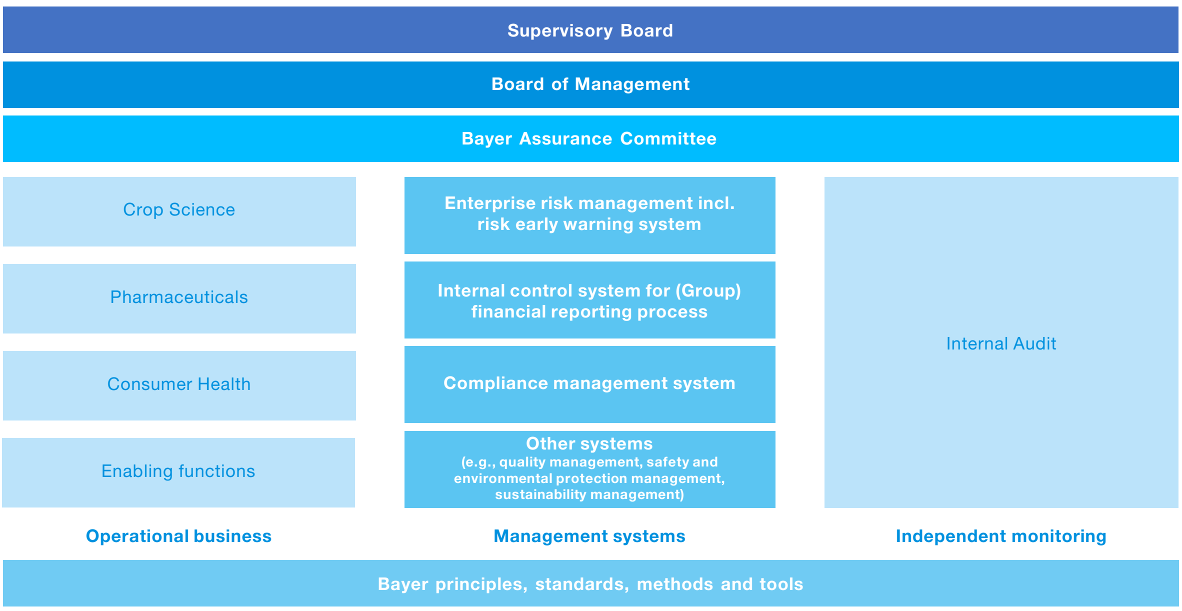
We have implemented a holistic and integrated risk management system designed to ensure the continued existence and future target attainment of the Group through the early identification, assessment and treatment of risks.

Our risk management system is aligned to internationally recognized standards and principles such as the ISO 31000 risk management standard of the International Organization for Standardization, and is defined and implemented with the help of binding corporate policies.

Structure of Bayer's risk management system

A 3.2.1/1

Structure of the Risk Management System



The **Board of Management** of Bayer AG holds overall responsibility for an effective risk management system. It examines the appropriateness and effectiveness of the risk management system at least once a year, as does the Supervisory Board's Audit Committee. In addition, a corresponding report is provided to the full Supervisory Board.

The **Bayer Assurance Committee** is chaired by the Chief Financial Officer, with a second Board of Management member participating on a rotating basis. Besides ensuring that appropriate action is taken to control any substantial risks, the Bayer Assurance Committee regularly discusses and reviews the risk portfolio and the status of the risk control measures.

Responsibility for the identification, assessment, treatment and reporting of risks lies with the **operational business units** in the divisions and enabling functions.

Enterprise risk management (ERM), including risk early warning system

Our enterprise risk management (ERM) system meets the requirement set out in Section 91, Paragraph 2 of the German Stock Corporation Act that a risk early warning system be implemented and used to identify, at an early stage, developments that are material and/or could endanger the company's continued existence. It establishes a consistent framework and uniform standards for the risk early warning system throughout the Bayer Group.

The Enterprise Risk Management department steers and coordinates said risk management system. It provides overarching standards, methods and tools, is responsible for the risk early warning system, steers the annual ERM process and works on ensuring continuous monitoring and improvement. For further details, see 3.2.1 "Basic elements of the Bayer risk management system," and specifically "ERM: risk management process" and "ERM: monitoring and improvement." The ERM department also ensures reporting to the Bayer Assurance Committee, the Board of Management, the Supervisory Board and the Audit Committee of the Supervisory Board.

Internal control system for (Group) accounting and financial reporting

(Report pursuant to Section 289, Paragraph 4 and Section 315, Paragraph 4 of the German Commercial Code)

As part of the comprehensive risk management system, we have an internal control system over financial reporting (ICSOFR) in place for the (Group) accounting and financial reporting process. This system comprises suitable structures and workflows that are defined and implemented throughout the organization. The purpose of our ICSOFR is to ensure proper and effective accounting and (Group) financial reporting in accordance with the relevant reporting principles. The ICSOFR is designed to guarantee timely, uniform and accurate accounting for all business transactions based on applicable statutory regulations, accounting and financial reporting standards, and the internal Group policies that are binding on all consolidated companies. Risks are identified and assessed, and appropriate countermeasures are taken to mitigate them. Mandatory Group-wide standards such as system-based and manual reconciliation processes and functional separation have been derived from these frameworks and promulgated throughout the Bayer Group. These standards are implemented by the Bayer Group companies. Compliance with these standards is the responsibility of the respective management teams. However, it should be noted that an internal control system, irrespective of its design, cannot provide absolute assurance that material misstatements in the financial reporting will be avoided or identified.

Compliance management system

Our compliance management system is aligned to the company's risk status and aims to ensure lawful and responsible conduct by our employees. It is designed to identify potential violations in advance and systematically prevent their occurrence. The compliance management system thus contributes significantly to the integration of compliance into our operating units and their processes. Detailed information on the compliance management system can be found in Chapter A 4.2 "Compliance," which describes in particular the process of identifying risks and taking measures to mitigate them.

Independent internal and external monitoring

The Internal Audit department conducts independent, risk-based and objective audit activities, employing a targeted and systematic approach in order to assess and help improve the effectiveness of corporate governance, risk management and monitoring processes. The tasks, powers and responsibilities of Internal Audit, as well as its position within the Bayer Group, are defined and established in the rules of procedure. The department's management adheres to the mandatory elements of the International Standards for the Professional Practice of Internal Auditing of the Institute of Internal Auditors (IIA). The Chief Audit Executive (CAE) regularly reports to the Board of Management and the Audit Committee on Internal Audit's compliance with the code of ethics and the standards. The CAE also regularly reports to the Board of Management and Audit Committee on the results of the audit assignments, as well as, for example, on Internal Audit's quality assurance and improvement program. This includes aspects such as relevant results of internal and external assessments carried out at least once every five years by a qualified independent assessor. The most recent assessment was concluded in the fourth quarter of 2022, yielding the best results possible. In addition, the fundamental suitability of the early warning system is assessed by the external auditor as an independent external body as part of its audit of the annual financial statements.

Basic elements of the Bayer risk management system

Risk culture and objectives of the risk management system

All levels of the company are included in risk management in order to heighten the awareness and understanding of risks. This lays the foundation for a risk culture with independent, proactive and systematic risk management involving clearly defined roles and responsibilities, principles, standards, methods, tools and training measures. The aims of the risk management system are to achieve risk transparency, which also encompasses the early detection of risks, to support risk-based (treatment) decisions and to ensure compliance with legal requirements.

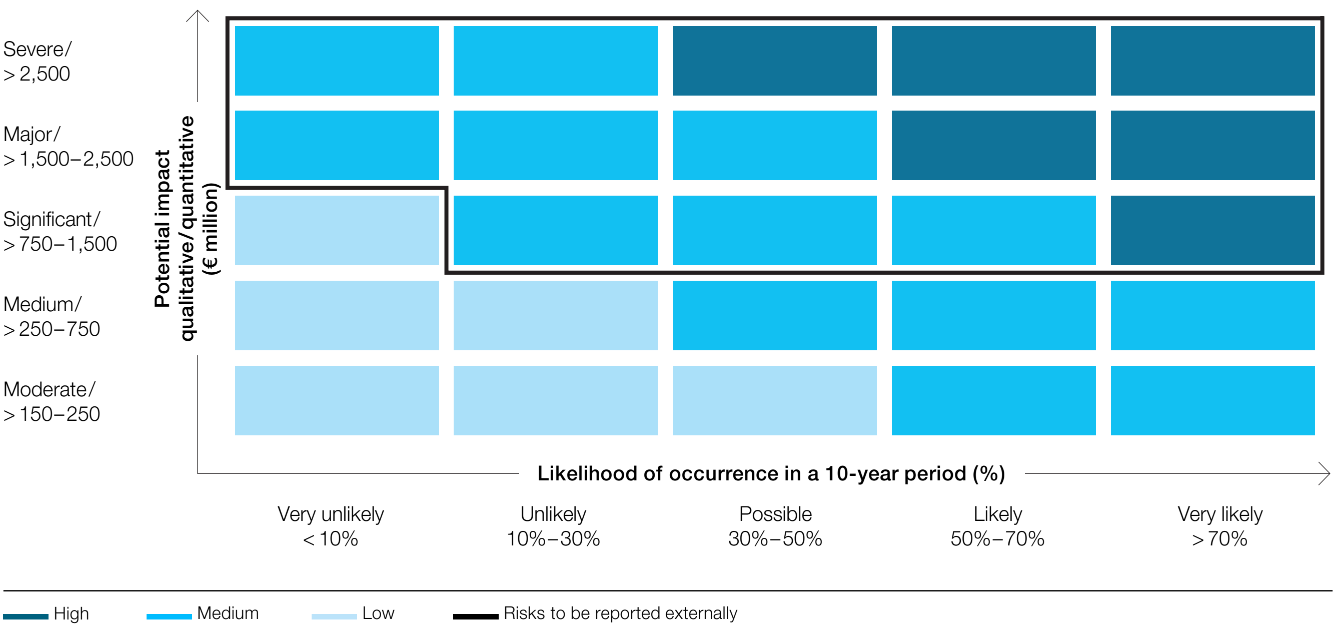
ERM: risk management process

Identification: Risks are identified by risk owners in the divisions and enabling functions. To help ensure we identify risks as comprehensively as possible, we maintain a risk universe that reflects the company's potential risk categories. The Bayer Risk Universe, which is regularly updated, also expressly accounts for risks of a nonfinancial nature that are linked to our business activity or to our business relationships, products and services. Risks pursuant to the Corporate Social Responsibility (CSR) Directive Implementation Act that relate to environmental, employee and social issues, human rights, corruption and bribery (compliance) are included as well. Further information on the nonfinancial statement can be found in the "About this Report" section.

Assessment: Where possible, the identified risks are evaluated with regard to their potential impact and likelihood of occurrence using the matrix below. Risks are assessed on a net basis, taking into account the risk control measures in place to mitigate the potential impact and/or likelihood of occurrence.

A 3.2.1/2

Risk Assessment Matrix



Risks are classified as high, medium or low when assessing their materiality within the overall risk portfolio. The extent of the impact is rated in quantitative and/or qualitative terms. The quantitative assessment reflects a potentially negative effect on cash flows. A qualitative assessment of the impact is based on criteria such as the effect on our strategy or reputation, the potential loss of stakeholder confidence, and potential impact on people and/or the environment. The higher rating – qualitatively or quantitatively – determines the overall assessment. The likelihood of occurrence is calculated based on a maximum period of 10 years.

We aggregate risks to ensure the early detection of risks that could combine or correlate to potentially endanger our company's continued existence. Using methods such as Monte Carlo simulations, we estimate the potential aggregated impact that our main risks could have on our cash flow. We compare the resulting aggregated risk situation with the risk-bearing capacity approved by the Board of Management. The outcome of this comparison is factored into the Board of Management's overall assessment of the company's risk status.

Treatment: The risk owners decide on a targeted risk level based on a cost-benefit analysis and define a risk management strategy as well as risk management measures. These include risk avoidance, risk reduction, risk transfer and risk acceptance.

Reporting: The results are reported to the Bayer Assurance Committee by the Enterprise Risk Management department within the Internal Audit & Risk Management enabling function. In addition, new risks above a defined threshold are reported to Enterprise Risk Management on an ad-hoc basis and, if relevant, to the Bayer Assurance Committee. A report on the risk portfolio is submitted to the Board of Management and the Audit Committee of the Supervisory Board at least once a year.

ERM: monitoring and improvement

The Enterprise Risk Management department within the Internal Audit & Risk Management enabling function continuously evaluates whether the principles, standards, methods and tools are appropriate and up to date.

Assessment of the risk management and internal control systems pursuant to Section 91, Paragraph 3 of the German Stock Corporation Act

The overarching requirements for all management systems in place at Bayer are defined by the integrated management system (IMS). Controls and monitoring are generally performed as part of the respective management systems, focusing on the risks that need to be mitigated.

The Board of Management has defined and implemented a procedure to ensure compliance with requirements pursuant to Section 91, Paragraph 3 of the German Stock Corporation Act with regard to the risk management system and the internal control system. This procedure is regularly reviewed and further developed as required.

Accordingly, the Board of Management is focused particularly on the four management systems of enterprise risk management, internal control system for (Group) accounting and financial reporting processes, compliance, and internal audit. These four management systems form the core of our risk management and internal control systems.

For further information on the core management systems, see Chapter 3.2.1 and particularly "Enterprise risk management (ERM) including risk early warning system," "ERM: risk management process" and "ERM: monitoring and improvement," "Internal control system for (Group) accounting and financial reporting processes" and "Compliance management system," as well as Chapter 4.2 "Compliance" and Chapter 3.2.1, particularly "Independent internal and external monitoring."

These core management systems are regularly monitored and reviewed by means of audits within the respective management system and audits by Internal Audit and/or external auditors. The results of these reviews are regularly reported to the Board of Management.

The review by the Board of Management did not identify any relevant indications that, in their entirety, would call into question the appropriateness and effectiveness of these systems for 2023.

However, it is important to bear in mind that, irrespective of their design or evaluation, risk management and internal control systems cannot ensure with absolute certainty that all risks are identified before they materialize and that the envisaged controls uncover all weaknesses.

3.2.2 Opportunity and Risk Status

In this section, we report on material, reportable risks pursuant to German Accounting Standard No. 20. These include all financial and nonfinancial risks that have been classified as high or medium and are at least significant in terms of potential impact after taking into account the risk control measures in place (net risk). They encompass risks falling within the black outline in the rating matrix A 3.2.1/2. In addition, we report relevant risks that (from a financial point of view) may not be sufficiently or meaningfully assessable, if at all. We also report on the principal opportunities identified in the course of our opportunity management. Furthermore, we assess the probability that the effects of individual risks could change significantly during the forecast period. Our most recent evaluation did not find this to be case, with the following exception: Legal proceedings may generally involve substantial estimation risks. Against the background of the proceedings in the glyphosate matter and PCB matters, in particular, outcomes of mediation and/or the ongoing litigations may lead to adjustments of the provisions established in connection with these series of litigations. Such adjustments may materially impact the forecast issued with respect to the financial position and cash flows. See also Note [30] in B Consolidated Financial Statements.

Comparable risks existing in different divisions of the company are grouped together where applicable.

According to our understanding, risks relating to the aspects outlined in the CSR Directive Implementation Act that would have to be reported separately would have to have at least a “severe” potential impact under the qualitative criterion “potential impact on people and/or the environment,” and additionally their likelihood of occurrence would have to be classified as “very likely.” We did not identify any risks that meet said criteria in 2023.

The section below details the individual risk categories that fall within the “Risks to be reported externally” area outlined in the risk matrix, as well as how they have been classified[21] and the divisions concerned. The order in which the risks are listed does not imply any order of importance. We also describe opportunities and risks of a division-specific nature where relevant. The divisions mentioned are those that have identified material risks. Other divisions may also be affected to a lesser extent. Material risks reported by enabling functions are categorized under “Group,” although they may also affect the divisions.

Social and macroeconomic trends
(High: Group; Medium: Crop Science, Pharmaceuticals)

We continue to see the risk of geopolitical shifts and tensions that may impact our global business. Competition between global powers and geostrategic rivalries are calling established economic paradigms into question and may adversely impact investment decisions, supply chains and international trade flows. While global trade remains highly interconnected, globalization is undergoing a period of transition that may have ramifications for our business environment: Decoupling in various areas (e.g. capital markets, technological standards) is causing many states to become increasingly focused on securing access to critical commodities and strategically important technologies. This may lead to the introduction of a greater number of restrictive commercial measures or investment controls relating to critical infrastructure, which may impact us directly or indirectly. Geopolitical risks continue to relate primarily to Russia’s war in Ukraine. We see risks both directly for our production and customers, as well as indirectly through the impact on our suppliers and supply chains (see also the “Supply of products” section). The effects of wars – including imposed sanctions – generally have the potential to significantly impact financial markets and economies, leading, for example, to pressure on supply chains, high volatility of foreign exchange rates and energy prices, inflation and the related cost pressure, as well as an economic slowdown or even recession. Shifts in these underlying conditions may negatively impact our sales and margins, for example. Furthermore, our market environment and, consequently, our business performance may be adversely impacted. The environment in which we operate is becoming increasingly harsh overall, which may continue to lead to increased attacks on critical infrastructure. We are preparing for these challenges with global and local operational crisis management, task forces and other interdisciplinary teams, as well as by diversifying our energy sources.

[21] The classification pertains to the risks.

The growing world population, coupled with rising food demand, gives rise to opportunities for our Crop Science Division. In addition, changing consumption patterns and increasing public awareness of the importance of healthy eating and sustainability, paired with new digital technologies, are giving rise to new pools of value in the agriculture market. Therefore, while high-quality seeds and crop protection will remain at our core, we see opportunities to capture additional value by tapping new customer segments, sales platforms and digital capabilities.

Furthermore, the aging population gives rise to opportunities for our Pharmaceuticals Division, with the incidence of chronic diseases on the rise and an increasing number of patients suffering from multiple conditions affecting their quality of life. To address the growing demand for innovative healthcare products to treat age-related diseases, our Pharmaceuticals Division has streamlined its R&D activities toward precision medicine with a narrower therapeutic area focus but a wider range of modalities.

Moreover, a negative public perception of Bayer represents a risk. For example, modern agricultural methods, such as the application of certain classes of crop protection products and the use of biotechnology, are often the subject of intense public debate, which may adversely affect our reputation. The risk of an increasingly negative public debate that is not primarily based on science may, for example, lead to legislative and regulatory decisions that are unfavorable to our company, significantly limiting the use of our products or even resulting in voluntary or mandated product withdrawals. We are engaged in constant dialogue with interest groups and regulators to promote scientifically founded, rational and responsible discussions and decision-making processes.

Furthermore, negative developments of a macroeconomic nature, such as crises in important sales markets for our company, could weigh on our business and reduce our earnings. Our seed and crop protection business in particular is cyclical and shaped by economic developments and factors, including fluctuating weather conditions and pest pressure that may adversely impact our Crop Science business. Forecasts concerning climate change indicate that these risks may possibly increase in the long term. We address these influences through our globally diversified business, flexible supply chain, comprehensive monitoring and assessment of market developments, and our ability to adjust production volumes to the level of demand forecast in sales and distribution planning.

Market developments (Medium: Crop Science)

In the Crop Science Division, we could face increased competition in the seed and crop protection industry. The successful market launch of new generations of products is also subject to external factors that we have only limited control over. In addition, new competitors entering the market and aggressive marketing and pricing strategies – not only for generic products – could have a largely negative impact on our profitability and market position. In addition, increasing digitalization in the agriculture sector could lead to the rise of new players and alter the market. To take account of these developments, we are realigning our business models, engaging in scientific and commercial partnerships, and utilizing our own R&D capabilities.

We see opportunities for our Pharmaceuticals Division. Scientific breakthroughs in fields such as cell and gene therapy and precision medicine have expanded the toolbox of innovative therapies. This provides opportunities to cure patients with the highest unmet needs or even prevent diseases in the first place. At the same time, data science and AI are leading to improved diagnostic methods, enabling diseases to be diagnosed and treated in a more targeted way.

Regulatory changes (High: Group; Medium: Crop Science, Pharmaceuticals)

Our business activity is subject to extensive regulations that continue to develop and may become more stringent, including in certain cases for reasons of a political nature. For example, further restrictions could be imposed on the sale and use of various crop protection products. In addition, approvals that have already been granted are currently being challenged and will likely continue to be challenged in court, especially by NGOs, potentially resulting in temporary or permanent revocation of product registrations or approvals and financial loss from reduced sales of crop protection products as well as associated seed offerings. Conserving biodiversity is one of the topics at hand in this respect, together with potential restrictions on the manufacture and use of certain chemical substances. Approval conditions may also become even more challenging for the Pharmaceuticals Division. In addition, the pricing of pharmaceutical products could become more strictly regulated – not only for products already exposed to generic competition, but also for innovative, patent-protected products. Residues of agrochemical products, pharmaceutical compounds or microplastics in the environment could also become subject to more stringent regulation. In addition, regulatory changes could affect agricultural imports from other parts of the world and therefore our business in those regions. We also need to prepare for regulatory changes in the field of AI in the future. Regulatory changes could also cause uncertainty over our products' patent protection, potentially resulting in financial losses that may even include the repayment of license fees. Regulatory changes may also lead to higher product development costs and longer development times, or even necessitate adjustments to our product portfolio, which in turn may negatively impact our reputation.

We counter such risks by monitoring changes in regulatory requirements in order to adequately address them within the company. We pursue a global strategy that bundles our strong product portfolio and sustainability commitments, and leverages our global business presence. We also deploy in-house R&D capacities, make acquisitions and enter into collaborations, while aligning our product portfolio to reflect anticipated changes. We also address these risks by engaging in dialogue with the authorities with the goal of promoting science-based decision-making, and by appropriately participating to defend against challenges to product approvals.

Business strategy (Medium: Pharmaceuticals, Group)

Our business strategy is geared toward innovation, which is inherently associated with risks. In our Pharmaceuticals Division, we see challenges in setting up new therapy platforms, such as for cell and gene therapy, and in further developing established therapeutic areas through innovative solutions. On a Group level, we might encounter challenges in our endeavors to implement our voluntary sustainability commitments in a timely manner, which may also be due to external factors. We may face negative financial repercussions and/or damage to our reputation, for example, if such risks were to materialize.

We counter these risks by aligning our organization and our processes to existing challenges. In the Crop Science Division, for example, our digital farming activities are supplemented by strategic partnerships with leading IT companies where necessary. In the Pharmaceuticals Division, meanwhile, we have established a cell and gene therapy unit, for example.

Research and development (High: Pharmaceuticals)

Across our businesses, we see opportunities both in the continued development of our brands and in the expansion of our research pipeline as a result of our innovation capabilities. In the Pharmaceuticals Division, opportunities arise from data science and AI and associated new R&D methods that save time and enhance R&D productivity. In addition, new, unique screening technologies facilitate the identification of new lead structures to unlock previously undruggable targets, with the potential to develop new and innovative products. We also rely on networking, both within the company and with external partners, to boost our innovation capabilities. This stimulates the development of new products.

Technological advances in pharmaceutical product development may at the same time also represent a risk for our company should we not be in a position to play a role in shaping such advances. Securing access to new technologies and identifying a sufficient number of research candidates in general while also ensuring their appropriate development represents a particular challenge. Targeting in-licensing and acquisitions as additional ways to strengthen our company involves the risk that we may be unable to identify a sufficient number of suitable candidates on financially acceptable terms. We cannot ensure that all of the development candidates we currently have in our pipeline, or will have in the future, will be developed to the stage at which they are ready to be launched on the market, or that they will obtain their planned approval/registration or achieve commercial success. These goals may not be reached if, for example, we are unable to satisfy technical or capacity requirements or meet time constraints in product development, fail to achieve study objectives or do not allocate financial resources optimally. Delays or cost overruns may occur during product registration or launch. We counter this risk through holistic portfolio management, by estimating the probability of success and prioritizing development projects.

Thanks to our innovation capacities and budgets within the Crop Science Division, we anticipate that we will be able to leverage opportunities and effectively tackle the challenges faced in developing and introducing product solutions in agriculture, including longer and more costly development cycles or stricter regulatory requirements. We plan to further leverage the strengths of our R&D platform to deliver pioneering technologies faster. In addition, we will leverage our existing expertise and strategically invest in new capabilities to unlock and capture new market segments.

Supply of products (procurement, production, logistics) (High: Group; Medium: Crop Science, Pharmaceuticals)

Despite all precautions, operations at our sites may be disrupted by fires, power outages, process changeovers – including those due to restrictions on the use of certain chemical substances – or plant breakdowns, for example. In addition, some of our production facilities are located in areas that may be affected by natural disasters such as flooding or earthquakes. The materialization of any of these risks could lead to production disruptions or stoppages, result in personal injury and damage to our reputation, lead to declines in sales and/or margins, and necessitate the reconstruction of damaged infrastructure. If we are unable to meet product demand, sales may undergo a structural decline because patients may in the meantime be receiving alternative treatments and may not switch back to our products. We address this risk for certain products by building up safety stocks and by spreading production across multiple sites, for example. Furthermore, an emergency response system based on a corresponding corporate policy has been implemented at all our production sites.

Disruptions in our upstream supply chain may also negatively impact our own supply capability. The substances we procure, and the companies that manufacture them, must meet all necessary regulatory requirements. These substances must also be suitable for fulfilling regulatory requirements further down the value chain. Certain materials, particularly in our Pharmaceuticals Division, are offered by only a small number of suppliers. We counter these risks by establishing relationships with alternative suppliers, concluding long-term agreements, expanding inventories and producing raw materials ourselves. Supplier risks are regularly reviewed and evaluated.

As a result of geopolitical risks and the international (supply chain) disruption they are causing, risks relating to the availability of necessary production materials and supply chain stability, for example, remain at the same high level as the previous year. See also the “Social and macroeconomic trends” section.

Marketing, sales and distribution (Medium: Pharmaceuticals)

New product launches present particular challenges for our marketing and distribution organization, since assumptions about aspects such as the market and market circumstances may not materialize as anticipated. As a result, product launch concepts – including those related to clinical trials – and the planning or implementation of the distribution strategy could turn out to be inefficient or inadequate in terms of scheduling. In addition, if competitors' marketing activities – including price competition from generics – or advertised product characteristics surpass our own efforts in this regard, this may represent a risk for sales of our products. We address these risks by conducting a forward-looking analysis of possible scenarios and devising suitable strategies for projects such as planned product launches.

Human resources (Medium: Group)

Skilled and dedicated employees are essential for our company's success. Difficulties in recruiting, hiring and retaining urgently needed specialized employees (on a regional level) – also in view of competition between employers – and in employee development could have significant adverse consequences for our company's future development. Developments such as the growing relevance of disruptive technologies and the new operating model we intend to adopt, together with new ways of working, will require new, innovative skillsets from our employees. Based on our analysis of future requirements, we counter these risks by designing appropriate employee recruitment and development measures. In addition, we align our corporate culture toward diversity and employee needs based on data, analyses and insights, enabling us to tap the full potential of the employment market.

Information technology (High: Group)

Our business and production processes and our internal and external communications are dependent on global IT systems. Ensuring the optimal alignment of our IT architecture, which also encompasses the use of cloud-based services and management of any service providers commissioned, therefore represents a challenge. This means that system reliability and the confidentiality of internal and external data are of fundamental importance to us. If our governance fails to adequately address this challenging environment, our operational stability could negatively impact our business and our information security requirements may not be met adequately. If the risk of a breach of data confidentiality, integrity or authenticity, for example due to (cyber) attacks, were to materialize, it could lead to the manipulation and/or uncontrolled outflow of data and knowledge, and to reputational damage. Such attacks may also be carried out by in-house personnel. Our business and/or production processes could also be temporarily disrupted by (cyber) attacks. To counter these risks, we evaluate and utilize new technologies. Projects and measures have also been implemented to keep technical security precautions up to date and proactively identify and examine new threats. In addition, security measures implemented by the Corporate Cyber Defense Center protect our IT infrastructure against unauthorized access.

Finance and tax (Medium: Group)

Liquidity risk

Liquidity risks are defined as the possible inability of the Bayer Group to meet current or future payment obligations. They are determined and managed by the Group Finance enabling function as part of our same-day and medium-term liquidity planning. We hold sufficient liquidity to ensure the fulfillment of all planned payment obligations throughout the Bayer Group at maturity. Furthermore, a reserve is maintained for unbudgeted shortfalls in cash receipts or unexpected disbursements, and its balance is regularly reviewed and adjusted. Credit facilities also exist with banks, including, in particular, an undrawn €4.5 billion syndicated revolving credit facility with a current maturity of 2025.

Credit risks

Credit risks arise from the possibility that the value of receivables or other financial assets of the Bayer Group may be impaired because counterparties cannot meet their payment or other performance obligations. The maximum default risk is reduced by existing collateral, especially our global credit insurance programs. To manage credit risks from trade receivables, the invoicing companies appoint credit managers who regularly analyze customers' creditworthiness. We generally agree reservation of title with our customers. Credit limits are set for all customers. In addition, all credit limits for debtors where total exposure is €10 million or more are evaluated both locally and centrally. Credit risks from financial transactions are managed centrally in the Group Finance enabling function. To minimize risks, financial transactions are only conducted within predefined exposure limits and with banks and other partners that preferably have investment-grade ratings.

Opportunities and risks resulting from market price changes

Opportunities and risks resulting from fluctuations in currency exchange rates, interest rates and commodity prices are managed by the Group Finance enabling function. Risks are mitigated through the use of derivative financial instruments. The type and level of currency, interest-rate and commodity-price risks are determined using sensitivity analyses as per IFRS 7 that are based on hypothetical changes in risk variables (such as interest curves) to gauge the potential effects of market price fluctuations on equity and earnings. Although they fall below the external reporting threshold under our ERM system, we report on interest-rate and commodity-price risks in this section in accordance with the provisions of IFRS 7.

Foreign currency opportunities and risks for our company arise from changes in exchange rates and the related changes in the value of financial instruments (including receivables and payables) and of anticipated payment receipts and disbursements not in the functional currency. Receivables and payables in liquid currencies from operating activities and financial items are generally fully exchange-hedged through cross-currency interest-rate swaps and forward exchange contracts. Anticipated exposure from planned payment receipts and disbursements in the future is hedged through forward exchange contracts and currency options according to management guidelines. Sensitivities were determined on the basis of a hypothetical scenario in which the euro appreciates or depreciates by 10% against all other currencies compared with the year-end exchange rates. In this scenario, the estimated hypothetical increase or decrease in cash flows from derivative and nonderivative financial instruments would have improved or diminished earnings as of December 31, 2023, by €15 million (December 31, 2022: €64 million). Derivatives used to hedge anticipated currency exposure that are designated for hedge accounting would have improved or diminished equity (other comprehensive income) by €474 million (December 31, 2022: €471 million). Of this amount, €158 million is related to the Brazilian real (BRL), €119 million to the Chinese renminbi (CNY), €42 million to the Japanese yen (JPY) and €38 million to the Canadian dollar (CAD). Currency effects on anticipated exposure are not taken into account.

Interest-rate opportunities and risks for our company arise from changes in capital market interest rates, which in turn could lead to changes in the fair value of fixed-rate financial instruments and changes in interest payments in the case of floating-rate instruments. Interest-rate swaps are concluded to achieve the target structure for Bayer Group debt. A sensitivity analysis conducted on the basis of our net floating-rate receivables and payables position at the end of 2023 gave the following result: A hypothetical increase of one percentage point in these interest rates (assuming constant currency exchange rates) as of January 1, 2023, would have raised our interest expense for the year ended December 31, 2023, by €4 million (December 31, 2022: €15 million).

Commodity-price opportunities and risks arise from the volatility of raw material prices, which could lead to an increase in the prices we pay for seeds and energy. We reduce commodity-price risks by using commodity-price derivatives such as futures, which are mainly designated as hedge accounting.

In addition, Bayer has concluded a long-term structured renewable energy credit (REC) purchase agreement to satisfy its renewable energy needs in the United States. The agreement contains a contract for difference that is separately accounted for as a derivative at fair value through profit or loss and is affected by energy prices. A sensitivity analysis with a hypothetical 10% change in commodity prices for derivatives used for hedging purposes indicated an effect of €58 million on equity (December 31, 2022: €38 million). A hypothetical 10% change would have resulted in a gain of €54 million or a loss of €68 million, respectively, through profit or loss.

Financial risks associated with pension obligations

The Bayer Group has obligations to current and former employees relating to pensions and other post-employment benefits. Changes in relevant measurement parameters such as interest rates, mortality and salary increase rates may raise the present value of our pension obligations. This may lead to increased costs for pension plans or diminish equity due to actuarial losses being recognized in other comprehensive income in the statement of comprehensive income. A large proportion of our pension and other post-employment benefit obligations is covered by plan assets, including fixed-income securities, shares, real estate and other investments. Declining or even negative returns on these investments may adversely affect the future fair value of plan assets. Both of these effects may negatively impact the development of equity and/or earnings, and/or may necessitate additional payments by our company. We address the risk of market-related fluctuations in the fair value of our plan assets through balanced strategic investment, and we constantly monitor investment risks in regard to our global pension obligations.

Tax risks

Bayer AG and its subsidiaries operate worldwide and are thus subject to many different national tax laws and regulations. The companies are regularly audited by the tax authorities in various countries where they are tax residents. Amendments to tax laws and regulations, legal judgments and their interpretation by the tax authorities, and the findings of tax audits in these countries may result in higher tax expense and payments, thus also influencing the level of tax receivables, tax liabilities and deferred tax assets and liabilities. Significant acquisitions, divestments, restructuring programs and other reorganizational measures that we undertake could also have a negative impact on such items. We counter the resulting risks by continuously identifying and evaluating the tax framework. We establish provisions for taxes, based on estimates, for liabilities to the tax authorities of the respective countries that are uncertain as to their amount and the probability of their occurrence.

Major programs (Medium: Group)

We are introducing a realigned operating model that we call Dynamic Shared Ownership, which aims to significantly enhance the Bayer Group’s focus on our mission, accelerate the pace of innovation and more effectively harness our growth potential. In this connection, we face the challenge of ensuring that we can adequately leverage the benefits we expect to arise from this transformation. Please see the Group Strategy section of the Strategy and Targets chapter for details. In addition, our ambitious objectives to standardize IT processes and systems may take longer to implement than planned or may not be completely fulfilled. Materialization of these risks could result in consequences such as increased costs and/or disruptions in service continuity. We counter these risks by deploying dedicated teams and multipliers to drive forward these projects with the Board of Management’s full backing.

External partner compliance (Medium: Group)

There is a risk that our partners, such as suppliers, do not pay due attention to our corporate values and requirements concerning ethics, compliance – including the observance of human rights – and sustainability. Besides an adverse impact for rights-holders from a potential human rights violation as defined by the International Bill of Human Rights and the International Labor Organization’s Declaration on Fundamental Principles and Rights at Work as well as the financial consequences for Bayer, a materialization of those risks could negatively impact our reputation and cause a supply interruption. To address these risks, we have clear sustainability criteria and standards in place for our supply chain on both a global and regional level. With the goal of improving sustainable practices in our supply chain, we operate a Group-wide four-step management process that comprises the following elements: raising awareness, supplier selection, supplier evaluation and supplier development. We address the distinct human rights challenges in the seed supply chain by applying a separate human rights management process for seed producers.

Health, safety and environment (Medium: Group)

We attach great importance not only to product safety but also to protecting our employees and the environment, as well as to respecting human rights both within our own business operations and also in our business relationships along the value chain. Misconduct or noncompliance with legal requirements or Bayer Group standards may result in personal injury, damage to property, reputation or the environment, loss of production, business interruptions and/or liability for compensation payments. This also includes risks relating to the release of hazardous substances due to an incident in production and the obligation to remediate contamination, along with risks concerning the observance of human rights and potential failure to address them adequately. We have put in place principles, standards and measures aimed at ensuring that our requirements are adequately communicated and optimally implemented.

Intellectual property (Medium: Crop Science, Pharmaceuticals)

Our portfolio largely consists of patent-protected products. Generic manufacturers in particular attempt to contest or circumvent patents prior to their expiration. We are currently involved in legal proceedings to enforce patent protection for our products. Converseley, legal action by third parties for alleged infringement of patent or other property rights by Bayer may impede or even halt the development or manufacturing of certain products. We may also be required to pay monetary damages or royalties to third parties. Our patents department regularly reviews the patent situation in collaboration with the respective operating units and monitors for potential patent infringements so that legal action can be taken if necessary.

Legal/compliance (Group)

We are exposed to risks from legal disputes or proceedings to which we are currently a party or which could arise in the future. See Note [30] to the Consolidated Financial Statements of the Bayer Group under "Legal risks." The legal proceedings outlined there are those currently considered to involve material risks and do not represent an exhaustive list. The general risks to which we are currently and/or potentially exposed include but are not limited to those in the areas of product liability, securities law, breach of contract, competition and antitrust law, anti-corruption law, patent law, tax law, data privacy and environmental protection. Investigations of possible legal or regulatory violations may result in the imposition of civil or criminal penalties – including substantial monetary fines – and/or other adverse financial consequences. Payments may also need to be made under out-of-court settlements or adverse court decisions. The materialization of any of these risks may harm our reputation and hamper our commercial success. We have established a global compliance management system to ensure the observance of laws and regulations.

Glyphosate matter

A large number of lawsuits from plaintiffs claiming to have been exposed to glyphosate-based products manufactured by Bayer's subsidiary Monsanto Company ("Monsanto") have been served upon Monsanto in the United States. Glyphosate is the active ingredient contained in a number of Monsanto's herbicides, including Roundup™-branded products. Plaintiffs allege personal injuries resulting from exposure to those products, including non-Hodgkin lymphoma (NHL) and multiple myeloma, and are seeking compensatory and punitive damages. The plaintiffs are claiming, inter alia, that the glyphosate-based herbicide products are defective and that Monsanto knew, or should have known, of the risks allegedly associated with such products and failed to adequately warn its users. Additional lawsuits are anticipated. The majority of plaintiffs have brought actions in state courts in Missouri and California.

As of January 31, 2024, Monsanto had reached settlements and/or was close to settling in a substantial number of claims. Of the approximately 167,000 claims in total, approximately 113,000 have been settled or are not eligible for various reasons.

As of January 31, 2024, there have been 19 Roundup™ trials concluded before both federal and state courts in California, Missouri, Oregon and Pennsylvania. In 10 of those trials, the juries reached verdicts in favor of Monsanto. In the other nine trials, the plaintiffs were awarded compensatory damages and a multiple thereof in punitive damages. A few of these cases have been settled later, but in most cases Monsanto has filed post-trial motions or appealed the jury verdicts, or plans to do so. In our opinion, these verdicts are based on numerous evidentiary and legal errors, as well as unconstitutionally excessive damage awards. Bayer has two appeals pending in federal court on preemption grounds: Carson, pending in the 11th Circuit Federal Court of Appeals, and Schaffner, pending in the Third Circuit Federal Court of Appeals.

As of December 31, 2023, Bayer's provision for the glyphosate litigation totaled US$6.3 billion (€5.7 billion). Bayer continues to believe there is no reason for safety concerns in connection with the products mentioned above.
As of January 31, 2024, a total of 32 Canadian lawsuits relating to Roundup™ had been served upon Bayer, including 11 seeking class action certification.
Bayer believes it has meritorious defenses and intends to defend the safety of glyphosate and our glyphosate-based formulations vigorously.

PCB matters
Bayer's subsidiary Monsanto has been named in lawsuits brought by various governmental entities in the United States claiming that Monsanto, Pharmacia and Solutia, collectively as a manufacturer of PCBs, should be responsible for a variety of damages due to PCBs in the environment, including bodies of water, regardless of how PCBs came to be located there. PCBs are chemicals that were widely used for various purposes until the manufacture of PCBs was prohibited by the EPA in the United States in 1979.
In 2020, Bayer entered into a class settlement, valued at approximately US$650 million, to settle claims of approximately 2,500 municipal entities. In 2022, the court issued its final approval of the class settlement. There were approximately 84 opt-outs of the class settlement, 62 of which have now filed lawsuits: California cities, counties and municipalities (City of Los Angeles, County of San Mateo, County of Marin and County of Contra Costa), Illinois (City of Chicago, City of Evanston and City of East St. Louis), Washington (City of Seattle) and Wisconsin (City of Milwaukee).
Currently, there are five pending state attorney general cases: Delaware, Illinois, Maryland, New Jersey and Vermont. Prior cases filed or threatened by Washington D.C., Washington, New Mexico, Ohio, Pennsylvania, New Hampshire and Virginia were settled for a combined total of approximately US$456 million. The Company also settled a pending matter with the State of Oregon for US$698 million, reflecting unique circumstances in that State.
The Vermont Attorney General case is different from the others in scope. In June 2023, the Vermont Attorney General filed suit in state court alleging claims for damages related to PCB contamination of the state's environment and its school buildings. The same month, a second and similar complaint (Addison Central School District) was filed in federal court (District of Vermont) by private lawyers representing 93 Vermont school districts alleging PCB contamination in school buildings. In addition, there is a pending case in Vermont on behalf of the Burlington School District and related personal injury claims (see below).
Monsanto also faces numerous lawsuits claiming personal injury due to use of and exposure to PCB products in school buildings. One group of cases with approximately 200 plaintiffs claims a wide variety of personal injuries allegedly due to PCBs in the building products of a school (Sky Valley Education Center) in King County, Washington. As of January 31, 2024, nine trials had been completed in these matters, involving a total of 65 plaintiffs. 20 of these plaintiffs were not successful as the juries decided in favor of Monsanto or a mistrial was declared after the jury was unable to reach a decision. The other 45 plaintiffs were awarded a total of approximately US$300 million in compensatory and a multiple thereof in punitive damages. The undisputed evidence in these cases does not, in Bayer's opinion, support the conclusions that plaintiffs were exposed to unsafe levels of PCBs or that any exposure could have caused their claimed injuries. Each of the adverse verdicts are in different stages of post-trial motions and appeal due to numerous significant trial errors.
In September 2023, a putative class action lawsuit (Neddo) was filed in the District of Vermont by a mother on behalf of her three children who attended a local school. She alleges they are at increased risk of cancer from PCB exposure and seeks the cost of medical monitoring. The complaint identifies 26 allegedly contaminated schools, and the proposed class is defined as all individuals who attended or worked at one of the contaminated schools. There are also five pending personal injury cases related to the Burlington, Vermont, high school.

There are additional personal injury cases stemming from non-school PCB exposure. In August 2023, nine cases were filed in Massachusetts state court involving 16 plaintiffs who allege various personal injuries from alleged exposure to PCBs in or near a former General Electric landfill. A personal injury and wrongful death action was filed by 169 current or former employees at Clark County Government Center in Nevada. These plaintiffs allege that PCBs contaminated the Center through prior operations by Union Pacific Railroad at the site. The Nevada action was dismissed by the court, and the plaintiffs have appealed. Lastly, there are four cases involving seven plaintiffs claiming injury due to exposure to PCBs near Monsanto's former Krummrich plant.
We believe that we also have meritorious defenses in these matters and intend to defend ourselves vigorously.
To recover costs associated with the PCB-related litigation, Bayer filed a complaint in August 2022 in the Circuit Court of St. Louis County for the State of Missouri to enforce its rights under certain indemnity contracts. Under these contracts, the companies who purchased PCBs for use in their products agreed to indemnify Monsanto for PCB-related litigation costs, including settlements.

We may incur considerable financial disadvantages from pending lawsuits and/or potential future cases if, for example, we are ordered to pay compensatory and possibly punitive damages or if we assume payment obligations under out-of-court settlements. We could be compelled to cover any such increased financial requirements by issuing additional external debt, increasing our equity capital or divesting assets – possibly on unfavorable terms – or through combinations of these measures. The terms on which we obtain external financing could become less favorable as a result of any increased financial requirements. The materialization of any of these risks may also adversely affect our reputation and our commercial success.

Product safety and stewardship (Medium: Crop Science, Pharmaceuticals)

Despite extensive studies prior to approval or registration, products may be partially or completely withdrawn from the market due, for example, to the occurrence of unexpected side effects or negative effects of our products. Such a withdrawal may be voluntary or result from legal or regulatory measures. In the agriculture business in particular, there is an additional risk that our customers could use our products incorrectly. Furthermore, the presence of traces of unwanted genetically modified organisms in agricultural products and/or foodstuffs may have wide-ranging negative repercussions. The materialization of any of these risks could, for example, lead to a loss of sales and earnings, a negative impact on our reputation and potential liability claims. We counter them by taking comprehensive measures in the areas of pharmaceutical and crop protection product safety and testing, including, in particular, a comprehensive stewardship program for genetic product integrity and quality with regard to seeds. These measures are based on globally defined principles and include analysis and monitoring measures, an alert system and training programs.

Quality and regulatory requirements (Medium: Crop Science, Pharmaceuticals, Group)

In almost every country in which we operate, our business activity is subject to extensive regulations, standards, requirements and inspections that also apply to our local contract manufacturers. In the area of health, this largely pertains to clinical studies and manufacturing processes, but also to production materials, for example. At our Crop Science Division, extensive requirements apply along the value chain, such as in our production activities, and also with respect to the external partners involved. Acquisitions may at times also be subject to requirements, compliance with which must be ensured both during and after the integration process. Potential infringements of regulatory requirements may result in the imposition of civil or criminal penalties, including substantial monetary fines, restrictions on our freedom to operate, and/or other adverse financial consequences. They could also harm our reputation and lead to declining sales and/or margins. We counter these risks through binding principles, standards and the control mechanisms in place. Quality requirements are defined and implemented in global quality management systems.

Security (Medium: Group)
Potential criminal activities targeting our employees, property or business activities represent a risk for our company. These include intellectual property theft, vandalism, physical attacks and sabotage. In addition, counterfeit versions of our products could be put into circulation. There is also the risk of crisis situations such as a pandemic or a prolonged power outage that could lead to a breakdown of our critical (IT) infrastructure and our production. We counter these risks – which in addition to financial effects could also negatively affect our reputation in some cases if they were to materialize – through our (local) crisis organizations, which produce response plans and take further measures. We have implemented a variety of early warning systems. Operating globally, our security and crisis management department ensures continuous reporting of security incidents and carries out regular crisis simulation exercises worldwide.

3.2.3 Overall Assessment of Opportunities and Risks by the Board of Management

In the opinion of the Board of Management, based on the current evaluations, none of the risks described above endanger the company's continued existence. Nor could we identify any potential threat to our continued existence, including when comparing our risk-bearing capacity with our aggregated risk situation. We currently have not identified any material change in our risk status compared with the assessment given in the 2022 Annual Report. We remain convinced that we can take advantage of the opportunities arising from our entrepreneurial activity and successfully master the challenges resulting from the risks stated above.

4. Corporate Governance Report

Bayer conforms with all recommendations of the German Corporate Governance Code

The Corporate Governance Report of the Bayer Group conforms with the recommendations of the German Corporate Governance Code and includes a Declaration by Corporate Management pursuant to Sections 289f and 315d of the German Commercial Code as well as all the information and explanations required by Section 289a through e and Section 315a through d of the German Commercial Code. The contents of the Corporate Governance Report are also included in the Management Report. In accordance with Section 317, Paragraph 2, Sentence 6 of the German Commercial Code, the information contained in the Declaration by Corporate Management is not taken into account in the audit of the financial statements.

4.1 Declaration by Corporate Management Pursuant to Sections 289f and 315d of the German Commercial Code

With the Declaration by Corporate Management pursuant to Sections 289f and 315d of the German Commercial Code for Bayer AG and the Bayer Group, the company provides information on the main elements of the Bayer Group's corporate governance structures, relevant corporate governance practices, the composition and procedures of the Board of Management, the Supervisory Board and their committees, and the objectives and concepts that must be established when composing the Board of Management and the Supervisory Board.

Declaration concerning the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act

In December 2023, the Board of Management and Supervisory Board of Bayer AG issued the annual declaration concerning the German Corporate Governance Code, stating that Bayer AG has fully complied with the recommendations of the German Corporate Governance Code since the previous declaration and intends to maintain full compliance with the recommendations contained in the April 28, 2022, version thereof in the future.

Availability of compensation report and information on compensation system and compensation resolution

The Compensation Report for 2023, Independent Auditor's Report, information on our compensation system and the most recent resolution on compensation are publicly accessible at www.bayer.com/cpr.

Information on corporate governance practices

Bayer AG is subject to German stock corporation law and therefore has a dual governance system consisting of the Board of Management and the Supervisory Board, which manage the company based on a transparent strategy that is geared toward its long-term success and complies with applicable law and ethical standards.

Corporate governance practices that go beyond the legal requirements are derived from our mission, guiding principles and target behaviors, which form the basis of the respectful working relationship between our employees and with our external partners, and cover all stages of the value chain. The main guidelines are summarized primarily in our corporate policies on compliance, human rights, and fairness and respect at work, as well as in our Supplier Code of Conduct and the Bayer Societal Engagement (BASE) principles. The organization and oversight obligations of the Board of Management and the Supervisory Board are mainly ensured by compliance management and risk management systems.

Board of Management

Composition, objectives (diversity concept) and succession planning

The Board of Management effectively consisted of six members in 2023. In April and May, it included a seventh member on a transitional basis. The Board of Management runs the company on its own responsibility with the goal of achieving defined corporate objectives and sustainably increasing the company's enterprise value.

With regard to the composition of the Board of Management, the Supervisory Board takes into account specialist expertise and personal aptitude, as well as aspects such as age, gender, education and professional background. Pursuant to Section 76, Paragraph 3a of the German Stock Corporation Act (AktG), the Supervisory Board must ensure that the Board of Management includes at least one woman and at least one man if it consists of three or more members.

An additional aspect relating to the composition of the Board of Management that the Supervisory Board has resolved to pursue is diversity. Without basing selection decisions on this aspect in individual cases, the Supervisory Board aims to ensure that different age groups are adequately represented on the Board of Management, while also taking into account the experience required for a position on the Board of Management. Irrespective of this, members of the Board of Management should generally step down from that office when they turn 62. The composition of the Board of Management should adequately reflect the company's international operations. The Supervisory Board therefore endeavors to include on the Board of Management several members of different nationalities or with an international background (e.g., several years of career experience outside Germany or the oversight of foreign business activities). The Supervisory Board also strives to ensure diversity with regard to the educational and professional backgrounds of the members of the Board of Management. In addition to the specific professional expertise and the management and leadership experience required for the given task, members of the Board of Management should cover the broadest possible spectrum of knowledge, experience, and educational and professional backgrounds.

These objectives are taken into account when selecting candidates to fill open positions on the Board of Management. In doing so, the Supervisory Board aims to ensure not just the greatest possible individual suitability of its various members, but also that as many different perspectives as possible are represented in the leadership of the company through a balanced and diverse Board of Management structure, and that the candidate selection pool is as large as possible.

In accordance with the statutory requirements of the Second Leadership Positions Act (FüPoG II), there are also targets pertaining to the proportion of women at the first and second management levels below the Board of Management. The Board of Management has set targets of 35%[22, 23] women at the first management level of Bayer AG and 35%[23, 24] women at the second management level. These targets are to be attained by June 30, 2027.

As part of the succession planning process, the Board of Management informs the Supervisory Board about candidates who have been identified as having the potential to become a member of the Board of Management. Among other things, the Supervisory Board places emphasis on intensive human resources development at the management level below the Board of Management while taking into account the diversity criteria outlined above. The Supervisory Board endeavors to meet the respective candidates personally during presentations given to the Supervisory Board or its committees, or on other occasions. The company has identified candidates who would be able to step in to replace individual Board of Management members and assume their roles at short notice if required. Whenever it becomes clear that there will be an empty seat on the Board of Management, efforts are undertaken to identify and evaluate prospective candidates inside and outside the company. When necessary, an HR consulting firm is brought in to aid the process.

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[22] Formal target pursuant to FüPoG II: 36 16/19%
[23] Based on the target size, the formal target pursuant to FüPoG II indicates the percentage to be specified that results in a whole headcount based on the current size of the group.
[24] Formal target pursuant to FüPoG II: 35 35/199%

Bill Anderson was appointed to the Board of Management effective April 1, 2023, and became Chairman (CEO) effective June 1, 2023. Werner Baumann and the Supervisory Board had previously agreed that Baumann's contract as member and Chairman of Bayer's Board of Management (CEO), which was set to run until April 30, 2024, should be terminated prematurely. Baumann's service contract and term of office came to an end by mutual consent on May 31, 2023.

Heike Prinz was appointed to the Board of Management effective September 1, 2023, and became the company's Labor Director. She also serves as Chief Talent Officer. Prinz succeeded Sarena Lin, who vacated her seat on the Board of Management on August 31, 2023.

Implementation status of the objectives

In line with the objectives, different age groups are represented on the Board of Management, while also taking into account the experience required for Board of Management positions. The ages of the members of the Board of Management ranged from 50 to 59 years as of December 31, 2023. Three of the six members of the Board of Management serving as of December 31, 2023, are citizens of a country other than Germany. All members of the Board of Management have amassed many years of career experience outside Germany. The members of the Board of Management also have diverse professional backgrounds. The legal requirement that the Board of Management must include at least one woman and at least one man has been met.

Procedures and committees

The Board of Management performs its tasks according to the law, the Articles of Incorporation and the Board of Management's rules of procedure, which govern the provision of information to the Supervisory Board, for example. It also works with the company's other governance bodies in a spirit of trust. There are no Board of Management committees.

Supervisory Board

Composition and objectives (diversity concept and expertise profile)

Under the German Codetermination Act, half of the Supervisory Board's 20 members are elected by the stockholders and the other half by the company's employees.

The Supervisory Board endeavors to ensure that its members collectively possess the necessary expertise, skills and professional experience to properly perform their duties. This includes the following areas: management and leadership of international companies, a business understanding with regard to the company's main areas of activity, research and development, finance, controlling/risk management, human resources, governance/compliance, digitalization (including IT, AI and cyber security) and key sustainability aspects for the company, such as climate protection and biodiversity.

The Supervisory Board has also resolved to pursue diversity in its composition, for instance with regard to age, gender, education and professional background. This is aimed at ensuring that the oversight of the company incorporates the broadest possible range of perspectives, and at keeping the candidate pool as large as possible. With respect to the international business alignment of Bayer AG, the Supervisory Board strives to ensure at all times that several of its members have international business experience or an international background in other respects. Further objectives concerning the composition of the Supervisory Board are that different age groups be suitably represented on the Supervisory Board and that, absent special circumstances, a member should not hold office beyond the end of the next Annual Stockholders' Meeting following their 72nd birthday. With a view to avoiding potential conflicts of interest and taking into account the ownership structure of the company and the number of independent Supervisory Board members, the Supervisory Board has set itself the goal that more than half of the stockholder representatives be independent. The Supervisory Board assesses the independence of its members according to the recommendation contained in Section C.7 of the German Corporate Governance Code. The Supervisory Board endeavors to ensure that the terms of service of its members are evenly spread, with members serving for no longer than 12 years. This restriction on the term of service will take effect from fiscal 2024 and will apply for serving members once their current elected term comes to an end.

The Nomination Committee and the full Supervisory Board take these objectives into consideration when nominating candidates to fill open positions on the Supervisory Board. The stated objectives refer to the

Supervisory Board as a whole, unless otherwise determined. However, since the Supervisory Board can only nominate candidates for election as stockholder representatives, it can only take the objectives into account in these nominations. One objective for Supervisory Board elections is that neither women nor men account for less than 30% of the membership, in line with the legal requirements.

Implementation status of the objectives

The Supervisory Board has several members with international business experience or an international background. The ages of the members of the Supervisory Board ranged from 51 to 69 years as of December 31, 2023. One member of the Supervisory Board, Dr. Paul Achleitner, has been a member of the Supervisory Board for more than 12 years. As such, the Supervisory Board does not consider him to be independent as defined in Section C.7 of the German Corporate Governance Code. However, the Supervisory Board does not harbor any concerns about Dr. Achleitner's impartiality or any potential conflicts of interest.

The Supervisory Board considers the stockholder representatives Dr. Simone Bagel-Trah, Horst Baier, Dr. Norbert Bischofberger, Ertharin Cousin, Colleen A. Goggins, Kimberly Mathisen, Alberto Weisser, Prof. Dr. Otmar Wiestler and Prof. Dr. Norbert Winkeljohann to be independent. The proportion of women on the Supervisory Board is currently 45% for the full Supervisory Board; 50% for the employee representatives and 40% for the stockholder representatives. Seven of the 20 members of the Supervisory Board are citizens of a country other than Germany. Numerous other members have many years of international business experience. The members of the Supervisory Board have also completed a whole range of vocational training and study courses.

For the purposes of the qualification matrices below, the Supervisory Board primarily considers its members to possess expertise and experience in the corresponding areas if they have completed professional training in that field or have amassed many years of professional experience (including several years as a member of the Supervisory Board or one of its respective committees).

In the opinion of the Supervisory Board, the stockholder representatives have the following special expertise and experience, as well as the following independence status:

A 4.1/1

Expertise and Experience of Shareholder Representatives on the Supervisory Board

	International business experience	R&D	Agriculture/ food	Healthcare	Finance	Controlling/ risk management	HR	Governance/ compliance	Digital	Sustainability/ climate protection	Independence
Dr. Paul Achleitner	X				X	X	X	X			
Dr. Simone Bagel-Trah	X					X	X	X		X	X
Horst Baier	X				X	X	X	X		X	X
Dr. Norbert W. Bischofberger	X	X		X							X
Ertharin Cousin	X		X				X	X		X	X
Colleen A. Goggins	X			X			X				X
Kimberly Mathisen	X	X	X	X			X		X	X	X
Alberto Weisser	X		X		X	X	X	X		X	X
Prof. Dr. Otmar D. Wiestler	X	X		X							X
Prof. Dr. Norbert Winkeljohann (Chairman)	X				X	X	X	X	X	X	X

Horst Baier, Chairman of the Audit Committee, also has special expertise regarding the application of accounting standards and internal control and risk management systems. This expertise is based on knowledge and experience gained in part through his previous work as head of finance and accounting and as the CFO of a publicly listed company. Norbert Winkeljohann, Chairman of the Supervisory Board and a member of the Audit Committee, has special expertise in the field of auditing. This expertise is based on his training as an auditor, academic work in this field and longstanding experience as an external auditor for publicly listed companies and as a partner and chairman of the management board of an international auditing company. In addition, Horst Baier and Norbert Winkeljohann each possess special expertise in the area of sustainability reporting and auditing. Of the other members of the Audit Committee, Alberto Weisser, a former CFO and CEO of a publicly listed company, and Frank Löllgen, a longstanding member of the Audit Committee, have particular expertise in accounting and auditing.

In the opinion of the Supervisory Board, the employee representatives have the following special expertise and experience:

A 4.1/2

Expertise and Experience of Employee Representatives on the Supervisory Board

	International business experience	R&D	Agri-culture/ food	Health-care	Finance	Controlling/ risk manage-ment	HR	Governance/ compliance	Digital	Sustain-ability/ climate protec-tion
André van Broich	X	X	X				X	X		
Yasmin Fahimi		X				X	X	X		X
Dr. Barbara Gansewendt	X	X		X	X	X	X	X		
Francesco Grioli	X				X	X	X	X	X	
Heike Hausfeld	X						X	X	X	
Frank Löllgen	X	X			X	X	X	X		
Andrea Sacher		X		X			X			
Claudia Schade							X			
Heinz Georg Webers	X			X		X	X	X		
Michael Westmeier				X	X	X	X			

Procedure and committees

The role of the Supervisory Board is to oversee and advise the Board of Management. The Supervisory Board is directly involved in decisions on matters of fundamental importance to the company, regularly conferring with the Board of Management on the company's strategic alignment and the implementation status of the business strategy. The Report of the Supervisory Board in this Annual Report provides details about the work of the Supervisory Board and its committees. In addition to the Presidial Committee and the Nomination Committee, the Supervisory Board also has an Innovation Committee and an ESG Committee to oversee and advise the Board of Management on matters relating to innovation and sustainability, respectively. Furthermore, the Human Resources and Compensation Committee deals intensively with succession planning and the compensation of the Board of Management. The Audit Committee discusses the audit risk assessment, the audit strategy and audit planning, as well as the audit results with the auditor. As part of this process, the Chairman of the Audit Committee regularly discusses the progress of the audit with the independent auditor, including during conversations held outside the meetings of the Audit Committee, and reports to the Committee. The Audit Committee consults with the independent auditor on a regular basis, both with and without the Board of Management present.

The Supervisory Board has set itself rules of procedure that are published on the company's website. These rules govern various aspects, such as how conflicts of interest are handled. In line with the recommendations of the German Corporate Governance Code, the rules of procedure state that conflicts of interest must be disclosed to the Chairman of the Supervisory Board, and that material conflicts of interest that are not merely temporary in nature shall result in the termination of that person's appointment to the Supervisory Board.

When new members join the Supervisory Board, a series of introductory meetings are arranged with the members of the Board of Management and with representatives from specialist functions to introduce them to their work on the Supervisory Board, and informational material is also provided in written form.

Training events are held for the members of the Supervisory Board at regular intervals. In 2023, they focused largely on digitalization issues. In 2023, the Supervisory Board conducted a self-assessment to evaluate how effectively it performs its duties. An external consultant was brought in to aid the process.

Further information

Securities transactions by members of governance bodies

Members of the Board of Management or Supervisory Board and persons with whom they have close relationships are legally obligated to report own-account transactions in shares or debt securities of Bayer AG, associated derivatives or other associated financial instruments to Bayer AG and the German Federal Financial Supervisory Authority (BaFin) as soon as the total volume of transactions made by a member of the Board of Management or Supervisory Board, or a person with whom they have a close relationship, has reached the €20,000 threshold within a calendar year. The transactions reported to Bayer AG in 2023 were duly published and can be viewed on the company's website.

4.2 Compliance

We define compliance as legally impeccable conduct by all employees in their daily work, because the way they carry out their duties affects our company's reputation. We do not tolerate any violation of applicable laws, codes of conduct or internal regulations. Compliance is essential for our long-term economic success.

The following compliance principles apply throughout the Bayer Group:

// We compete fairly in every market.
// We act with integrity in all our business dealings.
// We balance economic growth with ecological and social responsibility.
// We observe trade controls that regulate our global business.
// We safeguard equal opportunity in securities trading.
// We keep accurate books and records.
// We treat each other with fairness and respect.
// We protect and respect intellectual property rights.
// We act in Bayer's best interest.
// We protect and secure personal data.

All employees are required to observe the compliance principles and to immediately report any violation of the Corporate Compliance Policy. Infringements are sanctioned. This applies in particular to managerial employees, who, for example, may lose their entitlement to variable compensation components and be subject to further disciplinary measures if violations that they could have prevented have occurred in their sphere of responsibility. Compliant and lawful conduct also factors into the performance evaluations of all managerial employees.

The global compliance management system is steered by a central compliance organization within the Bayer Group that reports to the Chief Financial Officer (CFO) and to the Audit Committee of the Supervisory Board. The CFO is responsible for the compliance organization, while the Audit Committee of the Supervisory Board oversees the effectiveness and further development of compliance within the Group.

Potential compliance risks (such as corruption) are identified together with the operational units to ensure the systematic and preventive detection and assessment of risks. Potential risks are then entered into global databases that we use to develop suitable measures for specific processes, business activities or countries, for example. In addition, we assess our business partners according to risk criteria as we look to identify potential compliance risks. Adherence to the corporate compliance principles is among the subjects covered in audits conducted by Bayer's Internal Audit and in the analyses and investigations by the legal and compliance organization. The heads of these organizations provide regular reports on the findings of the audits and analyses to the Audit Committee of the Supervisory Board, while summary reports are presented at least once a year.

Handling of suspected and actual compliance violations

Suspected compliance violations can be reported – anonymously if desired and if permitted by respective national law – to a globally accessible compliance hotline that is operated by an independent service provider. Reports can be submitted either online or by telephone, with calls answered by trained, independent specialists. Those submitting reports can do so in their preferred language. The hotline is also accessible to the general public.

In 2023, the Compliance organization received a total of 595 compliance reports in this way.

In addition, there is a so-called "speak-up inbox" at Bayer for the submission of suspected compliance violations. Alternatively, suspected violations may also be reported to the local Compliance function, Internal Audit, Human Resources or directly to the supervisor. Suspected compliance violations may also be reported by logging an incident request on a platform. Moreover, the Compliance function records and processes compliance violations discovered as part of monitoring activities. In 2023, there was a total of 1,494 suspected compliance violations.

Compliance violations include all possible types of infringements of internal and external requirements and are systematically sanctioned. The action taken depends on factors including the gravity of the compliance violation and applicable law.

Compliance training and communications activities

We support all employees in acting with integrity and proactively avoiding potential violations by implementing Bayer-wide training measures that are tailored to target groups and based on identified needs, flanked by communication campaigns. Supervisors and/or compliance managers can be consulted if there are any questions about lawful behavior.

Training measures on anti-corruption, the importance of openly expressing concerns ("speak up"), antitrust law, conflicts of interest, fairness and respect in the workplace, foreign trade law compliance, product-related communication and data protection are fundamental elements of our compliance management system.

In 2023, some 95.7% of Bayer's managerial employees worldwide completed at least one compliance training program. Overall, around 83.1% of employees took part in the global web-based training program on anti-corruption.

Marketing compliance and applicability of accepted standards

We are committed to responsible marketing practices. Our efforts in this regard are guided by our Corporate Compliance Policy, Anti-Corruption Policy and rules of conduct for responsible marketing, for example.

We have also put in place directives and corporate policies that are designed to prevent price fixing and ensure data protection. Various industry codes such as those of the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) and the European Federation of Pharmaceutical Industries and Associations (EFPIA) also apply in marketing and distribution. As regards the advertising of human pharmaceutical products, we comply with the IFPMA Code of Practice as the minimum global standard, along with the regulations set out in the applicable regional and national codes. Pharmaceuticals observes the applicable transparency rules (e.g., the Physician Payments Sunshine Act in the United States) and participates in voluntary programs such as the EFPIA Disclosure Code.

Crop Science's Product Stewardship Commitment applies to all products, services and technologies and is in alignment with the International Code of Conduct on Pesticide Management issued by the Food and Agriculture Organization (FAO) of the United Nations and the Code of Conduct on Plant Biotechnology issued by CropLife International, for example.

Lobbying

Forming part of our commitment to ensuring transparent lobbying, our “Code of Conduct for Responsible Lobbying” sets out binding rules for our involvement in political matters and creates transparency in our interactions with the representatives of political institutions.

As set out in this code of conduct, our company did not make any donations to political parties, politicians or candidates for political office in 2023. Effective January 1, 2022, we abolished our applicable exemption for the United States, meaning that we no longer donate directly as a company. However, one special aspect continues to apply: employees can make private donations in support of political nominees at the federal level through so-called “political action committees.” These voluntary donations are made only by employees, not the company. Decisions on how the donations made through Bayer’s political action committee, BAYERPAC, are allocated are made by an independent committee made up of employees. The allocation criteria it applies reflect societal challenges, among other factors. These donations are subject to narrow conditions and mandatory transparency measures. We also apply the Bayer Societal Engagement (BASE) principles, which are afforded the status of a global corporate policy and serve to codify our standards and values to an even greater degree.

4.3 Disclosures Pursuant to Sections 289b Through e and 315b and c of the German Commercial Code

The Bayer Group meets the requirements for the nonfinancial statement pursuant to Sections 289 b through e and 315 b and c of the German Commercial Code (HGB). The relevant disclosures pertaining to the nonfinancial statement in accordance with the Corporate Social Responsibility Directive Implementation Act (CSR-RUG) are integrated into the Management Report, with the GRI standards (Section 289d HGB) serving as a framework.

The Supervisory Board fulfilled its auditing duty for the nonfinancial statement pursuant to Section 170, Paragraph 1 and Section 171, Paragraph 1 of the German Stock Corporation Act (AktG).

A 4.3/1

Index to Nonfinancial Statement

Topics	Chapter
Business model	A 1.1 Corporate Profile and Structure
Aspects	
Environmental aspects	A 1.2.1 Strategy and Targets A 1.5 Procurement and Supplier Management A 1.7 Product Stewardship A 1.8 Environmental Protection and Safety
Employee-related aspects	A 1.6 Sustainability Management A 1.4 Commitment to Employees A 1.5 Procurement and Supplier Management A 1.8 Environmental Protection and Safety
Social aspects	A 1.6 Sustainability Management A 1.7 Product Stewardship A 1.8 Environmental Protection and Safety
Bribery and corruption	A 1.6 Sustainability Management A 1.5 Procurement and Supplier Management A 4.2 Compliance
Respect for human rights	A 1.6 Sustainability Management A 1.4 Commitment to Employees A 1.5 Procurement and Supplier Management
Material risks	A 3.2 Opportunity and Risk Report
Diversity concept	A 1.4 Commitment to Employees A 4.1 Declaration by Corporate Management

4.4 Takeover-Relevant Information

Explanatory report pursuant to Section 289a, Paragraph 1 and Section 315a, Paragraph 1 of the German Commercial Code (HGB)

The capital stock of Bayer AG amounted to €2,515,005,649.92 as of December 31, 2023, divided into 982,424,082 no-par registered shares. The capital stock and the number of shares were thus unchanged from the end of the previous year. Each share confers one voting right. A small number of shares may be subject to temporary trading restrictions, such as retention periods, in connection with employee stock participation programs. We received no notifications in 2023 of direct or indirect holdings of shares in Bayer AG that exceed 10% of the capital stock. The company thus is not in possession of any notifications of holdings that exceed 10% of the capital stock.

The appointment and dismissal of members of the Board of Management are subject to the provisions of Sections 84 and 85 of the German Stock Corporation Act, Section 31 of the German Codetermination Act and Section 6 of the company’s Articles of Incorporation. Pursuant to Section 84, Paragraph 1 of the German Stock Corporation Act, the members of the Board of Management are appointed and dismissed by the Supervisory Board. The Supervisory Board may appoint one member of the Board of Management to be the Chairman of the Board of Management (CEO) pursuant to Section 84, Paragraph 2 of the German Stock Corporation Act and Section 6, Paragraph 1 of the Articles of Incorporation. Pursuant to Section 84, Paragraph 3 of the German Stock Corporation Act, the Supervisory Board must grant a Board of Management member’s request to revoke their appointment to the Board of Management in certain cases, and must also guarantee that member’s reappointment after certain periods. Since Bayer AG falls within the scope of the German Codetermination Act, Section 31 of that act governs the voting majority required for the appointment or dismissal of members of the Board of Management as well as the voting procedure within the Supervisory Board. Under Section 6, Paragraph 1 of the Articles of Incorporation of Bayer AG, the number of members of the Board of Management is determined by the Supervisory Board but must be at least two. As a publicly listed company that is subject to the German Codetermination Act, Bayer AG must ensure under Section 76, Paragraph 3a of the German Stock Corporation Act that its Board of Management includes at least one man and one woman if the number of members is greater than three.

Any amendments to the Articles of Incorporation are made pursuant to Section 179 of the German Stock Corporation Act and Sections 10 and 17 of the Articles of Incorporation. Under Section 179, Paragraph 1 of the German Stock Corporation Act, amendments to the Articles of Incorporation require a resolution of the Stockholders’ Meeting. Pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act, this resolution must be passed by a majority of three-quarters of the voting capital represented at the meeting, unless the Articles of Incorporation provide for a different majority. However, where an amendment relates to a change in the object of the company, the Articles of Incorporation may only specify a larger majority. Section 17, Paragraph 2 of the Articles of Incorporation of Bayer AG utilizes the scope for deviation pursuant to Section 179, Paragraph 2 of the German Stock Corporation Act and provides that resolutions may be passed by a simple majority of the votes cast or, where a capital majority is required, by a simple majority of the capital represented. Pursuant to Section 10, Paragraph 9 of the Articles of Incorporation, the Supervisory Board may resolve on amendments to the Articles of Incorporation that relate solely to their wording.

The Annual Stockholders’ Meeting held on April 26, 2019, resolved that the Board of Management be authorized to purchase and dispose of own shares representing up to 10% of the capital stock existing at the time the resolution was adopted. This authorization expires on April 25, 2024. The authorization to purchase own shares also includes the purchase of own shares using put or call options (derivatives) up to a volume of 5% of the capital stock existing at the time the resolution was adopted or at the time the authorization is exercised. Stockholders’ subscription rights may be excluded, depending on the purpose for which the purchased own shares are to be used.

A material agreement that is subject to the condition precedent of a change of control pertains to the undrawn €4.5 billion syndicated credit facility arranged by Bayer AG and its US subsidiary Bayer Corporation. This facility is available until December 2025. The participating banks are entitled to terminate the credit facility in the event of a change of control at Bayer and demand repayment of any loans that may have been granted under this facility up to that time. A similar clause is contained in the terms of a syndicated credit facility amounting to €3 billion that was fully drawn by Bayer AG in May 2022 and fully repaid in December 2023.

In 2018, Bayer Capital Corporation B. V. issued a bond with a nominal volume of €5 billion and Bayer US Finance II LLC issued, in 144A/RegS format, a US$15 billion bond and another US$5.7 billion bond. All three bonds are guaranteed by Bayer AG. Holders of these bonds have the right to demand the redemption of bonds by Bayer AG in the event of a change of control if Bayer AG’s credit rating were to deteriorate within 120 days after such change of control becomes effective, although the period for a potential deterioration of Bayer AG’s credit rating is only 60 days in the case of the US$15 billion bond and the US$5.7 billion bond. As of December 31, 2023, the original US$15 billion bond had an outstanding amount of US$9 billion, the original US$5.7 billion bond had an outstanding amount of US$4.7 billion and the original €5 billion bond had an outstanding amount of €3.3 billion.

The terms of the €3 billion note issued by Bayer under its Debt Issuance Program in 2023, the full amount of which was outstanding as of December 31, 2023, also contain a corresponding change-of-control clause associated with a deterioration of the credit rating within 120 days. Clauses to this effect were also included in the terms of the US$7 billion bond in 144A/Reg S format issued in 2014 by Bayer US Finance LLC and guaranteed by Bayer AG, which had an outstanding amount of US$1.8 billion as of December 31, 2023; the nominal €6 billion bond issued by Bayer AG in 2020, the full amount of which was outstanding as of December 31, 2023; the nominal €4 billion bond issued by Bayer AG in 2021, the full amount of which was outstanding as of December 31, 2023, and the US$5.75 billion bond in 144A/Reg S format issued in November 2023 by Bayer US Finance LLC and guaranteed by Bayer AG, the full amount of which was outstanding as of December 31, 2023. In the case of the US$5.75 billion bond, the period for a potential deterioration of Bayer AG’s credit rating is only 60 days.

In the event of a change of control, members of the Board of Management are entitled to a severance payment of 250% of annual base compensation if certain narrow conditions are met. The payment is limited to the compensation for the remaining term of the contract, capped at twice the annual compensation.

5. Information on Bayer AG

Business lease agreements exist between Bayer AG on the one hand, and Bayer CropScience AG and Bayer Pharma AG – the former parent companies of the divisions Crop Science and Pharmaceuticals – on the other. Bayer AG as lessee manages these two companies' operational businesses on the basis of these agreements. In addition to its holding company function, Bayer AG thus also performs the parent company functions with respect to the two divisions.

Bayer AG is a generator and supplier of utilities at multiple locations and thus an energy utility as defined in Section 3, No. 18 of the German Energy Industry Act (EnWG). Since utility supply networks are operated by a subsidiary, Bayer AG also constitutes a vertically integrated energy utility under Section 3, No. 38 of the EnWG. However, regarding its own activities, it is only subject to the separate accounting obligation and not the obligation to prepare activity reports.

The financial statements of Bayer AG are prepared in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). Because the company is an integrated energy utility, the provisions of Section 6b of the EnWG are also observed.

5.1 Earnings Performance of Bayer AG

A 5.1/1

Bayer AG Summary Income Statements According to the German Commercial Code

€ million	2022	2023
Net sales	16,470	15,961
Increase or decrease in inventories of finished goods and work in process	5	202
Other own work capitalized	7	24
Other operating income	4,294	3,731
Cost of materials	(11,597)	(11,204)
Personnel expenses	(3,431)	(2,340)
Write-downs on intangible assets and property, plant and equipment	(185)	(121)
Other operating expenses	(8,637)	(7,580)
Operating income	**(3,074)**	**(1,327)**
Income from investments in affiliated companies – net	9,257	7,126
Interest income/expense – net	(1,199)	(622)
Other financial income/expense – net	(27)	22
Nonoperating income	**8,031**	**6,526**
Income taxes and other taxes	(193)	(49)
Income after taxes/net income	**4,764**	**5,150**
Allocation to other retained earnings	(2,382)	(2,575)
Distributable profit	**2,382**	**2,575**

Development of earnings

Bayer AG met its sales forecast of approximately €16 billion in 2023. As expected, sales declined in the Pharmaceuticals Division, where the performance of the main product Xarelto™ was weaker than projected. This was offset by some products exceeding expectations, especially our new product Kerendia™ as well as Adempas™. Sales from the internal charging-on of costs for services remained level and internal sales at Crop Science slightly exceeded expectations. Operating earnings were boosted by positive currency effects, insurance payouts, a €755 million decline in expenses for company pension plans due to modified pension trend assumptions, and a €340 million decline in provisions for wages and salaries that mainly related to variable compensation components, the reduction in which had a positive impact on the cost structure. There was an operating loss of roughly €1.3 billion, which was €1.2 billion narrower than planned.

Sales of Bayer AG declined by about 3% to €15,961 million in 2023 (2022: €16,470 million).

Sales at the Crop Science Division came in at €4,994 million, exceeding the prior-year level (2022: €4,817 million). This positive business performance was attributable to higher prices for crop protection products. Intra-Group sales rose to €4,584 million (2022: €4,434 million). External sales also improved, coming in at €410 million (2022: €383 million), mainly due to the expansion of business at SeedGrowth. The Fungicides and Insecticides business units saw sales rise to €2,111 million (2022: €1,897 million) and €857 million (2022: €843 million), respectively, in 2023, while sales at Herbicides fell to €1,263 million (2022: €1,341 million). On a regional level, sales climbed to €2,300 million (2022: €2,021 million) in Europe/Middle East/Africa and €1,168 million (2022: €1,114 million) in North America, mainly due to the increase in sales at the SeedGrowth and Fungicides business units. Sales in the Asia/Pacific and Latin America regions declined to €986 million (2022: €1,117 million) and €540 million (2022: €565 million), respectively, largely due to lower sales at Fungicides and SeedGrowth.

The Pharmaceuticals Division posted a decline in sales to €9,732 million (2022: €10,383 million). Intra-Group sales fell to €8,881 million (2022: €9,475 million) and external sales to €851 million (2022: €908 million). The decline in Xarelto™ sales to €3,289 million (2022: €3,753 million) was primarily due to lower demand in Russia. The decline in Adempas™ sales to €572 million (2022: €648 million) was attributable to lower demand due to an inventory-related effect in 2022 in the United States, and the decline in Adalat™ sales to €401 million (2022: €674 million) was mainly attributable to tender procedures in China. The increase in Kerendia™ sales to €335 million (2022: €102 million) was primarily due to the product's launch in the United States in 2021 and the resulting increase in demand. On a regional level, sales at the Pharmaceuticals Division declined to €4,655 million (2022: €4,937 million) in Europe/Middle East/Africa, largely due to lower demand for Xarelto™ in Russia. The decline in sales in North America to €2,233 million (2022: €2,301 million) was mainly attributable to lower demand for Adempas™, although this was largely offset by increased demand for Kerendia™. Sales in Asia/Pacific decreased to €2,330 million (2022: €2,711 million), mainly as a result of weaker demand for Adalat™ in China. The increase in sales in Latin America to €514 million (2022: €434 million) was primarily driven by higher demand for Xarelto™.

Sales at Enabling Functions fell to €1,235 million (2022: €1,270 million).

Other operating income dropped to €3,731 million (2022: €4,294 million), due especially to the decline in exchange gains to €2,930 million (2022: €3,852 million). This effect was partly offset by higher income from the reversal of provisions (€500 million; 2022: €139 million), which in turn mainly pertained to the reversal of provisions for restructuring (€263 million; 2022: €84 million) and for pensions and other post-employment benefits (€113 million; 2022: €0 million). In addition, an insurance claim resulted in compensation of €200 million.

The cost of materials decreased by around 3% year on year to €11,204 million (2022: €11,597 million). Personnel expenses declined to €2,340 million (2022: €3,431 million), primarily due to lower expenses for company pension plans as a result of modified pension trend assumptions, as well as reduced provisions for variable compensation components.

Other operating expenses fell to €7,580 million (2022: €8,637 million). The year-on-year change resulted from a decrease in expenses from foreign currency translation to €2,841 million (2022: €4,268 million), a decline in costs assumed for restructuring measures to €194 million (2022: €344 million), and a fall in marketing and selling expenses to €463 million (2022: €577 million). These effects were partly offset by an increase in rental and leasing expenses to €445 million (2022: €357 million) and a rise in expenses for impairment losses on receivables to €78 million (2022: €7 million).

Research and development expenses, consisting of related personnel and nonpersonnel costs within the respective expense item, amounted to €2,532 million (2022: €2,520 million). Of the total expenses, €677 million (2022: €747 million) was attributable to the Crop Science Division and €1,855 million (2022: €1,773 million) to the Pharmaceuticals Division. The decline at Crop Science was due to a decrease in the intra-Group charging-on of costs, while the increase at Pharmaceuticals was mainly attributable to projects in advanced clinical development. As of December 31, 2023, there were 4,577 employees (FTEs) working in research and development. Research and development expenses corresponded to a 16% (2022: 15%) share of sales.

The company recorded an operating loss of €1,327 million for 2023 (2022: €3,074 million).

The balance of income and expenses from investments in affiliated companies was €7,126 million (2022: €9,257 million), and thus down year on year. Dividends and similar income from subsidiaries rose significantly to €1,104 million (2022: €291 million). This development was mainly attributable to the dividend payment of €1,000 million by Bayer Hispania, S.L.U., Spain (2022: €0 million). The balance of income and expenses from profit and loss transfer agreements with subsidiaries improved to €2,092 million (2022: minus €601 million). This was driven by the profit transferred by Bayer Pharma AG (€1,759 million; 2022: €120 million) – due mainly to higher profit and loss transfers and the sale of investments in affiliated companies – and the profit transferred by Neunte Bayer VV GmbH (€604 million; 2022: minus €785 million). The balance of other income and expenses from investments in affiliated companies, which includes gains from the sale of investments in affiliated companies together with write-downs and write-ups thereof, declined to €3,930 million (2022: €9,567 million) due to lower gains of €3,939 million (2022: €9,592 million) resulting from intra-Group changes in the shareholding structure.

Net interest expense in 2023 declined to €622 million (2022: €1,199 million), largely due to effects from the unwinding of the discount on pension and noncurrent personnel-related commitments and the development of plan assets. The balance of income/expense from the unwinding of discount and the development of plan assets improved to €439 million (2022: minus €1,210 million). This mainly reflected the balance of income from plan assets of Bayer Pension Trust e. V. (BPT) (€531 million; 2022: expense of €970 million), which was due to the favorable development of the fair value of the assets held by BPT, and interest expense from the unwinding of discount on pension provisions (€92 million, 2022: €240 million). The balance of other financial expenses and other financial income was positive, at €22 million (2022: minus €27 million). The improvement resulted mainly from higher income – recognized in the financial result – from the retirement of bonds (€31 million; 2022: €0 million), and a lower negative net impact from expenses for pension and other noncurrent personnel-related provisions not being charged on (€15 million, 2022: €44 million).

In 2023, the company generated income of €5,199 million before income taxes (2022: €4,957 million). After deduction of €49 million (2022: €193 million) in taxes, net income amounted to €5,150 million (2022: €4,764 million). After allocating €2,575 million of this net income to other retained earnings, the distributable profit amounted to €2,575 million. The Board of Management will propose to the Annual Stockholders' Meeting on April 26, 2024, that, of the distributable profit of €2,574,582,046.65 reported in the annual financial statements for the fiscal year 2023, an amount of €108,066,649.02 be used to pay a dividend of €0.11 per share carrying dividend rights and the remaining amount of €2,466,515,397.63 be allocated to other retained earnings.

5.2 Asset and Financial Position of Bayer AG

A 5.2/1

Bayer AG Summary Statements of Financial Position According to the German Commercial Code

€ million	Dec. 31, 2022	Dec. 31, 2023
ASSETS		
Noncurrent assets		
Intangible assets, property, plant and equipment	361	388
Financial assets	82,438	85,069
	82,799	85,457
Current assets and miscellaneous assets		
Inventories	2,824	3,061
Trade accounts receivable	2,084	1,816
Accounts receivable from subsidiaries	5,388	1,525
Other assets and deferred charges	738	1,004
Cash and cash equivalents, marketable securities	7,273	4,337
	18,307	11,743
Total assets	**101,106**	**97,200**
EQUITY AND LIABILITIES		
Equity	**33,250**	**36,042**
Provisions	**6,947**	**5,460**
Other liabilities and deferrals and accruals		
Bonds and notes, liabilities to banks	17,559	17,938
Trade accounts payable	2,164	2,118
Payables to subsidiaries	40,579	34,814
Remaining liabilities and deferred income	607	828
	60,909	55,698
Total equity and liabilities	**101,106**	**97,200**

Development of items in the statement of financial position

As in previous years, Bayer AG's financial position reflected the management function it performs for the Group, particularly with respect to the company's shareholdings and Group financing. The statement of financial position is characterized by these shareholdings and the receivables and payables vis-à-vis Group companies. Total assets decreased to €97,200 million in 2023 (2022: €101,106 million).

Noncurrent assets climbed to €85,457 million overall (2022: €82,799 million). Intangible assets and property, plant and equipment came in at €388 million and were thus nearly unchanged year on year (2022: €361 million). Financial assets increased to €85,069 million (2022: €82,438 million). The change in the shareholding structure, as part of an intra-Group contribution in kind through a share swap, generated a book profit of €3,939 million and a corresponding increase in financial assets, with additions through new Bayer Pharma AG shares (€4,825 million) partly offset by the retirement of a shareholding in Bayer Gesellschaft für Beteiligungen mbH (€886 million). Loans to subsidiaries declined by €1,525 million to €12,441 million, mainly due to a €1,424 million repayment by Bayer CropScience AG. The €125 million decrease in other loans to €1,354 million resulted from Bayer-Pensionskasse VVaG repaying portions of its effective initial fund (€126 million).

Current and miscellaneous assets fell to €11,743 million (2022: €18,307 million). Inventories increased to €3,061 million (2022: €2,824 million). Accounts receivable from subsidiaries, which mainly comprised loan receivables and receivables under profit and loss transfer agreements, fell to €1,525 million (2022: €5,388 million). The increase in other assets to €680 million (2022: €426 million) largely resulted from higher tax receivables. Holdings of marketable securities declined to €1,328 million (2022: €3,652 million) due to the sale of euro and US dollar investments with indefinite maturities.

Equity rose by €2,792 million to €36,042 million (2022: €33,250 million).

Provisions fell to €5,460 million (2022: €6,947 million). The provisions recognized for the excess of pension liabilities over plan assets declined to €3,232 million (2022: €3,676 million). This change was partly attributable to an increase in fund assets due to the favorable development of the fair value of the assets held by BPT, and lower obligations from pension entitlements due to modified pension trend assumptions. Provisions for taxes fell to €488 million (2022: €630 million), primarily due to the change in provisions for income taxes not yet finally assessed. Miscellaneous provisions fell to €1,740 million (2022: €2,641 million), with personnel-related provisions decreasing to €1,032 million (2022: €1,513 million). This was mainly attributable to a decline in provisions for variable compensation components to €146 million (2022: €410 million), and a decrease in provisions for personnel-related restructuring measures to €615 million (2022: €750 million). Other miscellaneous provisions fell to €708 million (2022: €1,128 million), mainly due to a decline in provisions for the assumption of costs for restructuring measures to €97 million (2022: €459 million), and a decrease in provisions for impending losses to €453 million (2022: €589 million).

Liabilities and deferred income – net of deductible receivables – fell to €55,698 million (2022: €60,909 million). Five new bonds with a total volume of €4,750 million were issued in 2023. In addition, two existing hybrid bonds issued in 2014 and 2019 were partially repurchased (volume of €1,389 million). As such, the total volume of outstanding bonds increased to €17,911 million (2022: €14,550 million). Liabilities to banks declined from €3,000 million to €27 million (2022: €3,009 million), mainly due to the repayment of loans. The decline in trade accounts payable to €2,118 million (2022: €2,164 million) mainly pertained to trade accounts payable to subsidiaries. Payables to subsidiaries fell to €34,814 million (2022: €40,579 million), largely due to a decline in loans to €32,468 million (2022: €36,107 million). Miscellaneous liabilities rose to €803 million (2022: €521 million), mainly because of additions to commercial paper.

Financial obligations declined to €56,777 million (2022: €57,894 million). Intra-Group financial obligations decreased by €1,794 million to €38,445 million, with short-term loans accounting for €4,485 million of this figure, the increase in liabilities from call deposits for €1,845 million, and higher loan liabilities for €846 million. Liabilities to third parties rose by €677 million to €18,332 million, with the €3,361 million increase in liabilities for bonds to €17,911 million partially offset by the €2,982 million decline in loans from banks to €27 million, as the primary factor. In addition, there was a €311 million increase in commercial paper. Net debt increased to €52,440 million (2022: €50,621 million) after deduction of €4,337 million (2022: €7,273 million) in cash and cash equivalents and marketable securities.

Since all of the own shares acquired in 2023 were subsequently resold, the transactions were not reflected in equity at the closing date. Details are provided in the stock-based compensation section of the “Equity” chapter in the Notes to the Financial Statements of Bayer AG.

5.3 Forecast, Opportunities and Risks for Bayer AG

Bayer AG is largely exposed to the same opportunities and risks as the Bayer Group. In addition to the following statements, please also refer to the "Report on Future Perspectives and on Opportunities and Risks" section on the Bayer Group.

Our strategy is subject to regular review to ensure adjustments can be made to reflect changes that arise across the economic and political landscape. We are currently working on a radical realignment of our operating model as a top priority. This new model, which we call Dynamic Shared Ownership (DSO), will put patients, farmers and consumers front and center, while also accelerating the pace of innovation and unlocking the potential of each and every employee. The DSO model envisages that our employees work in small, self-managed teams that are focused on a customer or a product. Activities are prioritized on the basis of their contribution to the mission, and progress is measured in short, 90-day cycles, giving us much greater agility. It also enables us to eliminate coordination work and reduce management layers. Personnel-related expenses for termination agreements in connection with the transformation are taken into account in the forecast.

Bayer AG is expected to generate sales of approximately €15.5 billion and an operating loss of around €2.5 billion in 2024. These figures include Bayer AG's own operational business and the businesses leased from Bayer CropScience AG and Bayer Pharma AG.

For Bayer AG, we expect slight sales declines for Xarelto™ and Adalat™ in the Pharmaceuticals Division in 2024, which will be also reflected in operating earnings. Sales from the intra-Group charging-on of services will be at approximately the same level as in 2023. Internal sales in the Crop Science Division will also decline slightly, which will additionally lead to a slight deterioration in operating earnings. In addition, the earnings of most German subsidiaries are transferred directly to Bayer AG under profit and loss transfer and control agreements. On account of the interdependencies between Bayer AG and its subsidiaries, the outlook for the Bayer Group thus largely also reflects the expectations for Bayer AG. Bayer AG plans to amend its dividend policy to pay out the legally required minimum in 2024.

5.4 Nonfinancial and Other Disclosures by Bayer AG

Due to the importance of Bayer AG within the Bayer Group, further disclosures are required. This pertains especially to the reporting of significant nonfinancial information, which also became mandatory for the parent company Bayer AG as a result of the CSR Directive Implementation Act, which came into effect in 2017.

The integrated presentation was selected in the Management Report for the nonfinancial statement to be issued in 2023 pursuant to Section 289b through e of the German Commercial Code (HGB). All disclosures, provisions, described processes and key data contained in the preceding statements in the Management Report apply to the Bayer Group including Bayer AG. No additional aspects were identified pursuant to the CSR Directive Implementation Act that apply exclusively to Bayer AG.

The following table contains significant nonfinancial and other key data of Bayer AG.

A 5.4/1

Significant Nonfinancial and Other Key Data of Bayer AG

	2022	2023
R&D expenses (€ million)	2,520	2,532
Employees[1]	18,276	17,955
Employees by function[1]		
Production	11,247	10,997
Marketing and distribution	938	867
R&D	4,679	4,577
Administration	1,412	1,514
Employees by gender[1]		
Women	6,512	6,366
Men	11,764	11,589
Personnel expenses (€ million)	3,431	2,340
Pension obligations (€ million)	7,833	7,708
Short-term incentive program (€ million)	359	97
Procurement spend (€ billion)	5.7	5.7
Safety		
Recordable Incident Rate (RIR)	0.37	0.41
Lost Time Recordable Incident Rate (LTRIR)	0.26	0.26
Process Safety Incident Rate (PSI-R)	0.28	0.29
Environmental protection		
Total energy consumption (terajoules)	6,011	5,854
Scope 1 and 2 greenhouse gas emissions (million metric tons of CO_2 equivalents)[2]	0.39	0.39
Water use (million cubic meters)	6.66	6.78
Total waste generated (thousand metric tons)	178	231

[1] Full-time equivalents (FTEs) as of December 31, 2023
[2] According to the market-based method

B Consolidated Financial Statements

Bayer Group Consolidated Income Statements

B 1

€ million	Note	2022	2023
Net sales	**[6]**	**50,739**	**47,637**
Cost of goods sold		(19,871)	(19,749)
Gross profit		**30,868**	**27,888**
Selling expenses		(14,084)	(12,482)
Research and development expenses		(6,572)	(5,371)
General administration expenses		(2,838)	(2,453)
Other operating income	[7]	3,039	1,897
Other operating expenses	[8]	(3,401)	(8,867)
EBIT[1]		**7,012**	**612**
Equity-method income (loss)	[10.1]	(150)	(162)
Financial income		450	601
Financial expenses		(2,642)	(2,672)
Financial result	**[10]**	**(2,342)**	**(2,233)**
Income before income taxes		**4,670**	**(1,621)**
Income taxes	[11]	(504)	(1,321)
Income after income taxes		**4,166**	**(2,942)**
of which attributable to noncontrolling interest	[12]	16	(1)
of which attributable to Bayer AG stockholders (net income)		**4,150**	**(2,941)**
€			
Earnings per share	**[13]**		
Basic		4.22	(2.99)
Diluted		4.22	(2.99)

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Bayer Group Consolidated Statements of Comprehensive Income

B 2

€ million	Note	2022	2023
Income after income taxes		**4,166**	**(2,942)**
of which attributable to noncontrolling interest	[12]	16	(1)
of which attributable to Bayer AG stockholders		4,150	(2,941)
Remeasurements of the net defined benefit liability for post-employment benefit plans	[22]	2,557	424
Income taxes	[11]	(848)	(98)
Other comprehensive income from remeasurements of the net defined benefit liability for post-employment benefit plans		**1,709**	**326**
Changes in fair values of equity instruments measured at fair value		(120)	(29)
Income taxes	[11]	26	2
Other comprehensive income from equity instruments measured at fair value		**(94)**	**(27)**
Other comprehensive income relating to associates accounted for using the equity method		**9**	**–**
Other comprehensive income that will not be reclassified subsequently to profit or loss		**1,624**	**299**
Changes in fair values of derivatives designated as cash flow hedges	[27.3]	(181)	(162)
Reclassified to profit or loss		463	12
Income taxes	[11]	(43)	33
Other comprehensive income from cash flow hedges		**239**	**(117)**
Changes in time value of options used as hedging instrument	[17]	7	(8)
Income taxes	[11]	(1)	2
Other comprehensive income from time value of options		**6**	**(6)**
Changes in exchange differences recognized on translation of operations outside the eurozone	[21]	1,869	(624)
Reclassified to profit or loss	[21]	(38)	(39)
Other comprehensive income from exchange differences	**[21]**	**1,831**	**(663)**
Other comprehensive income relating to associates accounted for using the equity method		**3**	**2**
Other comprehensive income that may be reclassified subsequently to profit or loss		**2,079**	**(784)**
Total other comprehensive income[1]		**3,703**	**(485)**
of which attributable to noncontrolling interest		(9)	(2)
of which attributable to Bayer AG stockholders		3,712	(483)
Total comprehensive income		**7,869**	**(3,427)**
of which attributable to noncontrolling interest		7	(3)
of which attributable to Bayer AG stockholders		7,862	(3,424)

[1] Other comprehensive income is recognized outside profit or loss in equity.

Bayer Group Consolidated Statements of Financial Position

B 3

€ million	Note	Dec. 31, 2022	Dec. 31, 2023
Noncurrent assets			
Goodwill	[14]	39,648	32,299
Other intangible assets	[14]	24,183	23,363
Property, plant and equipment	[15]	13,674	13,321
Investments accounted for using the equity method	[16]	893	850
Other financial assets	[17]	2,049	2,267
Other receivables	[20]	1,065	1,132
Deferred taxes	[11]	5,605	5,471
		87,117	**78,703**
Current assets			
Inventories	[18]	13,636	13,947
Trade accounts receivable	[19]	10,312	9,343
Other financial assets	[17]	5,208	4,836
Other receivables	[20]	1,923	2,030
Claims for income tax refunds		1,507	1,442
Cash and cash equivalents		5,171	5,907
Assets held for sale	[5.3]	3	51
		37,760	**37,556**
Total assets		**124,877**	**116,259**
Equity	**[21]**		
Capital stock		2,515	2,515
Capital reserves		18,261	18,261
Other reserves		17,997	12,151
Equity attributable to Bayer AG stockholders		**38,773**	**32,927**
Equity attributable to noncontrolling interest		153	151
		38,926	**33,078**
Noncurrent liabilities			
Provisions for pensions and other post-employment benefits	[22]	4,388	4,014
Other provisions	[23]	8,591	7,784
Refund liabilities	[6]	10	14
Contract liabilities	[6]	561	436
Financial liabilities	[24]	33,791	38,176
Income tax liabilities		1,672	1,523
Other liabilities	[26]	1,127	987
Deferred taxes	[11]	727	790
		50,867	**53,724**
Current liabilities			
Other provisions	[23]	5,092	3,241
Refund liabilities	[6]	5,583	5,463
Contract liabilities	[6]	4,163	3,856
Financial liabilities	[24]	7,861	6,830
Trade accounts payable	[25]	7,545	7,456
Income tax liabilities		1,056	619
Other liabilities	[26]	3,784	1,992
		35,084	**29,457**
Total equity and liabilities		**124,877**	**116,259**

Bayer Group Consolidated Statements of Changes in Equity

B 4

€ million	Capital stock	Capital reserves	Retained earnings incl. net income	Exchange differences	Fair-value measurement of equity instruments
Jan. 1, 2022	**2,515**	**18,261**	**13,345**	**(1,312)**	**212**
Total comprehensive income					
Income after income taxes			4,150		
Other comprehensive income			1,709	1,843	(85)
Miscellaneous other changes			138		(15)
Equity transactions with owners					
Dividend payments			(1,965)		
Other changes			(144)		
Dec. 31, 2022	**2,515**	**18,261**	**17,233**	**531**	**112**
Total comprehensive income					
Income after income taxes			(2,941)		
Other comprehensive income			326	(659)	(27)
Miscellaneous other changes			(21)		(4)
Equity transactions with owners					
Dividend payments			(2,358)		
Other changes			(64)		
Dec. 31, 2023	**2,515**	**18,261**	**12,175**	**(128)**	**81**

B 4 (continued)

€ million	Cash flow hedges	Equity attributable to Bayer AG stockholders	Equity attributable to non-controlling interest	Equity
Jan. 1, 2022	**(1)**	**33,020**	**148**	**33,168**
Total comprehensive income				
Income after income taxes		4,150	16	4,166
Other comprehensive income	245	3,712	(9)	3,703
Miscellaneous other changes	(123)			
Equity transactions with owners				
Dividend payments		(1,965)	(20)	(1,985)
Other changes		(144)	18	(126)
Dec. 31, 2022	**121**	**38,773**	**153**	**38,926**
Total comprehensive income				
Income after income taxes		(2,941)	(1)	(2,942)
Other comprehensive income	(123)	(483)	(2)	(485)
Miscellaneous other changes	25			
Equity transactions with owners				
Dividend payments		(2,358)	(21)	(2,379)
Other changes		(64)	22	(42)
Dec. 31, 2023	**23**	**32,927**	**151**	**33,078**

Bayer Group Consolidated Statements of Cash Flows

B 5

€ million	Note	2022	2023
Income after income taxes		4,166	(2,942)
Income taxes		504	1,321
Financial result		2,342	2,233
Income taxes paid		(2,034)	(1,298)
Depreciation, amortization and impairment losses (loss reversals)		6,503	10,020
Change in pension provisions		(129)	(183)
(Gains) losses on retirements of noncurrent assets		(1,692)	(152)
Decrease (increase) in inventories		(2,170)	(430)
Decrease (increase) in trade accounts receivable		269	689
(Decrease) increase in trade accounts payable		612	82
Changes in other working capital, other noncash items		(1,278)	(4,223)
Net cash provided by (used in) operating activities		**7,093**	**5,117**
Cash outflows for additions to property, plant, equipment and intangible assets		(2,949)	(2,751)
Cash inflows from sales of property, plant, equipment and other assets		1,130	215
Cash inflows from (outflows for) divestments less divested cash		2,378	8
Income tax payments related to divestments and asset sales		(91)	(472)
Cash inflows from noncurrent financial assets		32	139
Cash outflows for noncurrent financial assets		(1,182)	(332)
Cash outflows for acquisitions less acquired cash		(89)	(662)
Interest and dividends received		218	451
Cash inflows from (outflows for) current financial assets		(1,828)	(113)
Net cash provided by (used in) investing activities		**(2,381)**	**(3,517)**
Capital contributions (redemptions)		15	23
Cash outflows to acquire Bayer AG shares (BayShare)		(25)	(24)
Dividend payments		(1,985)	(2,379)
Issuances of debt		6,631	16,284
Retirements of debt		(7,605)	(13,031)
Interest paid including interest-rate swaps		(1,296)	(1,537)
Interest received from interest-rate swaps		45	31
Cash outflows for the purchase of additional interests in subsidiaries		–	(46)
Net cash provided by (used in) financing activities		**(4,220)**	**(679)**
Change in cash and cash equivalents due to business activities	[31]	**492**	**921**
Cash and cash equivalents at beginning of year		**4,564**	**5,171**
Change in cash and cash equivalents due to changes in scope of consolidation		3	–
Change in cash and cash equivalents due to exchange rate movements		112	(185)
Cash and cash equivalents at end of year		**5,171**	**5,907**

Notes to the Consolidated Financial Statements of the Bayer Group

1. General information

Bayer Aktiengesellschaft (Bayer AG), which is entered in the commercial register of the Local Court of Cologne, Germany, HRB 48248, is a global enterprise based in Germany. Its registered office is at Kaiser-Wilhelm-Allee 1, 51368 Leverkusen. The material business activities of the Bayer Group take place in the life science fields of healthcare and nutrition and are reported on via the Crop Science, Pharmaceuticals and Consumer Health segments. The activities of each segment are outlined in Note [4].

The declarations required under Section 161 of the German Stock Corporation Act concerning the German Corporate Governance Code have been issued and made available to stockholders via the Bayer website (https://www.bayer.com/en/investors/corporate-governance).

The Board of Management of Bayer AG prepared the consolidated financial statements of the Bayer Group as of December 31, 2023, at its meeting on February 22, 2024, submitted the prepared statements to the Audit Committee and the Supervisory Board for examination and approval, and released them for publication.

2. Effects of new financial reporting standards

Financial reporting standards applied for the first time in 2023

The following amendments to financial reporting standards were applied for the first time as of January 1, 2023. The amendments had no material impact on the Group's financial position or results of operations.

B 2/1

Financial Reporting Standards Amendments With No Material Impact

Amendments to standards		Mandatory application
IFRS 17	Insurance Contracts, including amendments to IFRS 17 and amendments to IFRS 17 Insurance Contracts: Initial Application of IFRS 17 and IFRS 9 – Comparative Information	Jan. 1, 2023
IAS 1	Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting Policies	Jan. 1, 2023
IAS 8	Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates	Jan. 1, 2023
IAS 12	Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction	Jan. 1, 2023
IAS 12	Amendments to IAS 12 Income Taxes: Temporary relief from accounting for deferred taxes arising from the OECD's international tax reform	Jan. 1, 2023

Published financial reporting standards that have not yet been applied

The IASB has issued the following amendments to standards, and their application was not yet mandatory for the 2023 fiscal year. In some cases, the European Union had not yet completed the endorsement process.

Therefore the following standards have not yet been applied by Bayer:

B 2/2

Published Financial Reporting Standards That Have Not Yet Been Applied

Amendments to standards/new standards		Mandatory application	Anticipated effects
IFRS 16	Amendments to IFRS 16 Leases: Lease Liability in a Sale and Leaseback	Jan. 1, 2024	No material effects expected
IAS 1	Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current, including Deferral of Effective Date, as well as Noncurrent Liabilities with Covenants	Jan. 1, 2024	No material effects expected
IAS 7, IFRS 7	Amendments to IAS 7 Statements of Cash Flows, IFRS 7 Financial Instruments – Disclosures: 'Supplier Finance Arrangements'	Jan. 1, 2024[1]	See remarks below
IAS 21	Amendments to IAS 21 The Effects of Changes in Foreign Exchange Rates: Lack of Exchangeability	Jan. 1, 2025[1]	Effects currently being evaluated

[1] The endorsement process of the European Union is still pending.

In May 2023, the IASB published amendments to IAS 7 (Statement of Cash Flows) and IFRS 7 (Financial Instruments: Disclosures) with a new disclosure requirement for supplier finance arrangements. These amendments to IAS 7 add a disclosure requirement stating that a company must disclose information on its supplier finance arrangements that enables users of its financial statements to assess the impact of these arrangements on the company's liabilities and cash flows. In addition, IFRS 7 was amended to add supplier finance arrangements as an example within the requirement to disclose information about a company's exposure to concentration of liquidity risk. To meet this disclosure requirement, Bayer will report the relevant information for any supplier finance arrangements of material importance for the Bayer Group. The changes are not expected to significantly affect the presentation of the Bayer Group's financial position or results of operations.

3. Reporting policies, methods and critical accounting estimates

The consolidated financial statements as of December 31, 2023, of Bayer AG and its subsidiaries (Bayer Group) were prepared according to the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), London, United Kingdom, and the interpretations of the IFRS Interpretations Committee (IFRS IC) as endorsed and adopted by the European Union as of December 31, 2023. The applicable further requirements of Section 315e of the German Commercial Code were also taken into account.

The consolidated financial statements were drawn up in euros. Except where otherwise indicated, amounts are stated in millions of euros (€ million) and rounded to the nearest million. Adding the individual figures may therefore not always result in the exact total given.

In the income statement and statement of comprehensive income, statement of financial position, statement of cash flows and statement of changes in equity, certain items are combined for the sake of clarity. These are explained in the Notes. The income statement was prepared using the cost-of-sales method. Assets and liabilities are classified by maturity. They are regarded as current if they mature within one year or within the normal business cycle, which usually does not exceed one year, or are held for sale. The normal business cycle is defined for this purpose as beginning with the procurement of the resources necessary for the production process and ending with the receipt of cash or cash equivalents as consideration for the sale of the goods or services produced in that process. Inventories and trade accounts receivable and payable are always presented as current items. Deferred tax assets and liabilities, and pension provisions are always presented as noncurrent items.

The financial statements of the individual companies consolidated are prepared according to uniform recognition and measurement methods. The consolidated financial statements are based on the principle of the historical cost of acquisition, construction or production, with the exception of the items reflected at fair value, such as equity instruments held, debt instruments held that do not solely comprise principal and interest payments, and derivatives and liabilities that must be recognized or were designated at fair value through profit or loss.

In preparing the consolidated financial statements, management must make certain assumptions and estimates that may substantially impact the presentation of the Group's financial position and/or results of operations. Such estimates, assumptions or the exercise of discretion mainly relate to the useful life of noncurrent assets, the discounted cash flows used for impairment testing and purchase price allocations, and the recognition of provisions, including those for litigation-related expenses, pensions and other benefits, taxes, environmental compliance and remediation costs, product liability and guarantees, as well as the recognition of refund liabilities.

Essential estimates and assumptions that may affect reporting in the various item categories of the financial statements are described in the following sections of this Note. Estimates are based on historical experience and other assumptions that are considered reasonable under given circumstances. They are continually reviewed but may vary from the actual values.

New or revised financial reporting standards often contain options regarding the first-time application of new recognition and measurement methods. The income statement for the previous year and the opening statement of financial position for that year may be adjusted depending on the option Bayer exercises. For further information on the standards applied for the first time as of January 1, 2023, see Note [2].

Consolidation

The consolidated financial statements include subsidiaries, joint operations, joint ventures and associates. The financial statements of the individual companies consolidated are prepared as of the closing date of the Group financial statements. If financial statements of joint ventures and associates have a different closing date, adjustments are made for material transactions or events between that date and the closing date of the consolidated financial statements of the Bayer Group.

Subsidiaries are companies over which Bayer AG is currently able to exercise power by virtue of existing rights. Power means the ability to direct the relevant activities that significantly affect a company's profitability. Control is therefore only deemed to exist if Bayer AG is exposed, or has rights, to variable returns from its involvement with a company and has the ability to use its power over that company to affect the amount of that company's returns. The ability to control another company generally derives from Bayer AG's direct or indirect ownership of a majority of the voting rights. In the case of structured entities, however, control is based on contractual agreements. Inclusion of an entity's accounts in the consolidated financial statements begins when the Bayer Group is able to exercise control over the entity and ceases when it is no longer able to do so.

A joint operation or a joint venture exists where the Bayer Group controls an entity's activities jointly with a third party on the basis of a contractual agreement and decisions about the relevant activities require the unanimous consent of the parties sharing control. The parties to a joint operation have rights to the assets, and obligations for the liabilities, relating to the arrangement. The Bayer Group recognizes its share of the assets, liabilities, revenues and expenses in the consolidated financial statements in accordance with its rights and obligations. The parties jointly controlling a joint venture have rights to the net assets of the arrangement. Joint ventures are accounted for using the equity method. Associates are companies over which Bayer Group companies hold a voting interest of between 20% and 50% or for which there are relevant indicators of significant influence. They also are accounted for using the equity method. The carrying amount of a company accounted for using the equity method is adjusted monthly by the change in its equity corresponding to Bayer's percentage interest in the company. Differences arising upon first-time inclusion using the equity method are accounted for according to full-consolidation principles. Bayer's share of changes – recognized in profit or loss – in these companies' equity, including impairment losses recognized on goodwill, are reflected in equity-method income/loss. Gains and losses arising from the remeasurement of investments accounted for using the equity method due to Bayer obtaining control or losing significant influence are also reflected in equity-method income/loss. Gains and losses from the sale of investments accounted for using the equity method are recognized in equity-method income/loss.

Interests in subsidiaries, joint ventures and associates that do not have a material impact on the Group's financial position or results of operations, either individually or in aggregate, are not consolidated but recognized as financial investments in equity instruments.

Foreign currency translation

The assets and liabilities of the subsidiaries that do not use the euro as their functional currency are translated into euros at closing rates. All changes occurring during the year and all income and expense items and cash flows are translated into euros at average monthly rates. For subsidiaries with a hyperinflationary functional currency, currencies are always translated at the respective closing rates. Equity components are translated at the historical exchange rates prevailing at the respective dates of their first-time recognition in Group equity. The exchange differences arising between the resulting amounts and those obtained by translating at closing rates are recognized outside profit or loss as "Exchange differences on translation of operations outside the eurozone" (in other comprehensive income) or presented as "Exchange differences" in the tables in the Notes. When a company is deconsolidated, such exchange differences are reclassified from equity to profit or loss and recognized in other operating income/expenses. When capital repayments of a net investment in a foreign operation are effected but the percentage of shares owned remains unchanged, exchange differences are reclassified from other comprehensive income to profit or loss and recognized on a prorated basis under exchange gains or losses in other financial income and expenses within the financial result.

The exchange rates for major currencies against the euro varied as follows:

B 3/1

Exchange Rates for Major Currencies

		BRL	CAD	CNY	GBP	JPY	RUB	USD
		Brazil	**Canada**	**China**	**UK**	**Japan**	**Russia**	**USA**
Closing rate	2022	5.64	1.44	7.37	0.89	140.72	77.92	1.07
	2023	5.36	1.46	7.87	0.87	156.34	99.19	1.11
Average rate	2022	5.42	1.37	7.08	0.85	137.76	70.22	1.05
	2023	5.40	1.46	7.66	0.87	151.55	91.23	1.08

The following companies have a hyperinflationary functional currency:

B 3/2

Application of IAS 29 (Financial Reporting in Hyperinflation Economies)

Company name	Place of business	Applied since
Bayer S. A.	Buenos Aires, Argentina	July 1, 2018
Bayer Türk Kimya Sanayii Limited Sirketi	Istanbul, Turkey	April 1, 2022
Monsanto Gida Ve Tarim Ticaret Ltd Sirketi	Istanbul, Turkey	April 1, 2022
Bayer Tohumculuk ve Tarim Limited Sirketi	Istanbul, Turkey	March 7, 2023

Hyperinflationary accounting is applied for these companies pursuant to IAS 29. On the date of first-time application, the adjustment of the carrying amounts of nonmonetary assets and liabilities was recognized in equity based on the general price index. The effects in initial accounting are immaterial for the Group. Gains and losses incurred from the current hyperinflation of nonmonetary assets and liabilities and of equity are recognized in the income statement as other operating income and expenses.

In Argentina, hyperinflation is based on the index “IPC Nacional Empalme IPIM” (2017=100) with an index value of 3,533 as of December 31, 2023 (December 31, 2022: 1,135), and an annual inflation rate of 211% (2022: 95%). In Turkey, hyperinflation is based on the “Consumer price index (2003=100)” with an index value of 1,859 as of December 31, 2023 (December 31, 2022: 1,128), and an annual inflation rate of 65% (2022: 64%).

Foreign currency measurement

Monetary items, such as receivables and liabilities, that are denominated in currencies other than a Group company’s functional currency are measured at closing rates. Related exchange differences are recognized as exchange gains or losses under other financial income or expenses.

Sales, refund liabilities, right-of-return assets and contract liabilities

All revenues derived from the selling of products, rendering of services or from licensing agreements are recognized as sales. Revenues are based on customer contracts and the performance obligations contained therein, which are individually identified and may be presented separately for the purpose of revenue recognition. Revenues are recognized in profit or loss when or as soon as the entity transfers control of goods or services to a customer either over time or at a point in time. Control lies with the customer if the customer can independently determine the use of, and consume the benefit derived from, a product or service. Revenues from product deliveries are recognized at a point in time based on an overall assessment of the existence of a right to payment, the allocation of ownership rights, the transfer of physical possession, the transfer of risks and rewards, and acceptance by the customer. In the case of product deliveries undertaken by the Bayer Group, the transfer of risks and rewards and the right to determine the product shipment destination are particularly important. Depending on the transfer of control, revenues from services are recognized either at a point in time or over the period of time when services are rendered and in accordance with a reasonable measure of progress.

Net sales are limited to the amount the Bayer Group expects to receive for the fulfillment of performance obligations. Payment components to be withheld for third parties are deducted. Sales are therefore reduced by sales taxes and by actual and expected sales deductions resulting from rebates, discounts and bonuses. Furthermore, sales are reduced by the amount of the refund liability for expected returns of defective goods or of saleable products that may be returned under contractual arrangements, with this reduction taking place at the date of revenue recognition or when a reliable estimate can be made. Refund liabilities are recognized for expected sales deductions and product returns. Sales deductions and refund liabilities are estimated primarily on the basis of historical experience, specific contractual terms, price information and thus future expectations of sales development. The underlying assumptions applied for refund liabilities are reviewed at each closing date and revised where necessary.

Assets from expected product returns are recognized in inventories as right-of-return assets at the previous carrying amounts less any recovery and processing costs and potential impairments. For unilaterally fulfilled customer contracts where more than one year passes between performance and payment, significant financing components are accounted for separately based on their present values and the subsequent unwinding of the discount. The underlying discount rate takes into account the individual credit risk of the contracting party that receives the financing. Revenues from contracts involving noncash consideration, such as exchange transactions, are measured at the fair value of the assets received or the right to receive them.

Some of the Bayer Group's revenues are generated on the basis of licensing agreements under which third parties have been granted the right to use or access products and technologies. A right-to-use license is characterized by the underlying technology remaining essentially unchanged over the period for which the rights are granted. With a right-to-access license, by contrast, the customer's interest is directed toward the consistent further development of that intellectual property. Revenues from right-to-use licenses are recognized at a specific point in time, while those from right-to-access licenses are recognized over time according to the underlying measure of progress. Milestone payments related to right-to-access licenses are allocated to satisfied and unsatisfied portions of the underlying performance obligation, as applicable. Consideration relating to already satisfied obligations is recognized as catch-up adjustments to revenue. Payment elements still to be earned are deferred as contract liabilities. Sales- or usage-based royalties agreed in connection with outlicensing arrangements are only recognized if the sale or the usage is sufficiently verified and the underlying performance obligation has been fulfilled.

In the Crop Science segment, Bayer conducts barter transactions in certain geographies to grant its customers longer payment terms while at the same time reducing the credit risk. For example, payment may be made in the form of a subsequent delivery of soybeans or corn, or crops may be pledged as collateral. Any commodity-price risk that Bayer is exposed to as a result is hedged using derivatives. Changes in the fair value of these derivatives are recognized in other operating income and expenses. If Bayer assumes control of goods (such as soybeans) instead of receiving a cash payment, their resale is accounted for in other operating income, and their derecognition in other operating expenses, since transactions of this nature do not form part of normal business operations.

Research and development expenses

Research expenses are recognized through profit or loss. Development expenses are only capitalized as internally generated intangible assets if the recognition criteria of IAS 38 (Intangible Assets) are met. These include sufficient certainty that the development activity will give rise to future financial cash flows that also cover the respective development expenses. Since our own development projects are often subject to regulatory approval procedures and other uncertainties, the conditions for the capitalization of costs incurred before receipt of approvals generally are not satisfied.

Development costs for internal software projects can be capitalized. Costs in connection with the implementation of cloud applications are usually recognized through profit or loss. If the definitions and recognition criteria of IAS 38 are met, which can be the case with interfaces, for example, the costs are capitalized as an intangible asset. Capitalized development expenses are recognized at the cost of generation and amortized over their expected useful lives. Impairment testing is also performed on an annual or event-driven basis.

Income taxes

Income taxes comprise the taxes levied on taxable income in the individual countries along with changes in deferred tax assets and liabilities that are recognized in profit or loss. This also includes current income taxes resulting from tax laws that have come into force or been adopted to implement the Pillar Two Model Rules published by the Organisation for Economic Co-operation and Development (OECD). The income taxes recognized are reflected at the amounts likely to be payable under the statutory regulations in force, or already enacted in relation to future periods, at the end of the reporting period. Complex tax regulations may give rise to uncertainties with respect to their interpretation and the amounts and timing of future taxable income. Given the wide range of international business relationships and the long-term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate adjustments to tax income and expense in future periods. Liabilities to tax authorities that are uncertain as to their amount and the probability of their occurrence are recognized as tax liabilities based on reasonable estimates. The amounts recognized are based on various factors, such as experience with previous tax audits and differing legal interpretations by the taxable entity and the responsible tax authority.

In compliance with IAS 12 (Income Taxes), deferred taxes are recognized for temporary differences between the carrying amounts of assets and liabilities in the statement of financial position prepared according to IFRS and their tax bases. Deferred taxes are also recognized for loss carryforwards, interest carryforwards and tax credits that are likely to be usable. Based on the exception stated in IAS 12.4A, deferred taxes related to Pillar Two are not recognized nor is information thereon disclosed. Deferred tax assets relating to deductible temporary differences, tax credits, loss carryforwards and interest carryforwards are recognized where it is probable that taxable income or sufficiently taxable temporary differences will be available in the future to enable them to be used. Deferred tax liabilities are recognized on temporary differences taxable in the future. Deferred taxes are calculated at the rates which – on the basis of the statutory regulations in force, or already enacted in relation to future periods, as of the closing date – are expected to apply in the individual countries at the time of realization. Deferred tax assets and deferred tax liabilities are offset if Bayer has a legally enforceable right to set off current tax assets against current tax liabilities and these are levied by the same taxation authority. Material effects of changes in tax rates or tax law on deferred tax assets and liabilities are generally accounted for in the period in which the changes are enacted. Such effects are recognized in profit or loss except where they relate to deferred taxes that were recognized outside profit or loss, in which case they are recognized in other comprehensive income or directly in equity.

Deferred and current taxes are recognized in profit or loss unless they relate to items recognized outside profit or loss in other comprehensive income, in which case they, too, are recognized in other comprehensive income or directly in equity. The probability that deferred tax assets resulting from temporary differences, loss carryforwards or interest carryforwards can be used in the future is the subject of forecasts by the individual consolidated companies regarding their future earnings situation and other parameters. Deferred tax liabilities are recognized on planned dividend payments by subsidiaries. Where no dividend payment is planned for the foreseeable future, no deferred tax liability is recognized on the difference between the proportionate net assets according to IFRS and the tax base of the investment in the subsidiary.

Goodwill

In a business combination, goodwill is capitalized at the acquisition date (see “Acquisition accounting”). Goodwill is not amortized but is tested for impairment at least annually or when there is an indication of possible impairment.

Other intangible assets

Other intangible assets are capitalized at the acquisition date at their cost of acquisition or generation. Those with a definite useful life are amortized on a straight-line basis over the following periods, except where their actual depletion demands a different amortization pattern.

B 3/3

Useful Lives of Other Intangible Assets

Patents and technologies	8 to 30 years
Trademarks	10 to 35 years
Marketing and distribution rights, customer relationships	5 to 30 years
Production rights	14 to 19 years
Other rights	2 to 12 years

The expected useful lives of such assets and the amortization patterns are determined based on estimates of the period for which they will generate cash flows. In addition, a review is conducted as of each closing date to ascertain whether there are any indications of impairment, and impairment testing may then potentially be performed.

Should inlicensing result in consideration for the acquisition of intellectual property, this is capitalized as an intangible asset. If the transaction also includes research and development activities, the share of consideration attributable to these activities is deferred and recognized through profit and loss according to the utilization thereof.

If separately capitalizable intangible assets are acquired within the scope of software projects (such as S/4HANA implementation), the related costs are correspondingly capitalized.

Emission allowances meet the criteria of intangible assets and are not subject to amortization due to their indefinite useful life. If emission allowances are granted to the company free of charge by a statutory authority in connection with regulatory requirements, like the EU Emissions Trading System (EU ETS), no amount is recognized for emission allowances. If more emissions are emitted than the allocated emission allowances permit, additional allowances are purchased and recognized as intangible assets at cost. Corresponding provisions are recognized in the period in which the emissions are emitted and usually reflect the cost of acquisition of the emission certificates. If the emissions in a specific period exceed the corresponding emission allowances, this portion of the provision is measured at the current market value of the allowances. When the allowances are retired, the intangible assets are derecognized and the corresponding provisions are reversed.

CO_2 certificates that are acquired or produced to meet our voluntary climate targets in connection with our greenhouse gas reduction program, including renewable energy certificates, are recognized as intangible assets at cost and derecognized against the relevant functional costs in the event of retirement. If they are used in the production process or are intended for sale within the normal course of business, they are recognized in inventories. If the certificates are retired immediately upon acquisition for the purpose of offsetting, they are recognized directly in functional costs.

Property, plant and equipment

Property, plant and equipment is initially recognized at the cost of acquisition or construction plus the estimated amounts of any redevelopment or decommissioning costs. Thereafter it is depreciated by the straight-line method over its expected useful life, except where use-related depreciation is more appropriate.

B 3/4

Useful Life of Property, Plant and Equipment

Buildings	5 to 50 years
Plant installations and machinery	4 to 40 years
Furniture, fixtures and other equipment	2 to 15 years

A review is conducted as of each closing date to ascertain whether there are any indications of impairment. When assets are sold, closed down or scrapped, the difference between the net proceeds and the net carrying amount of the assets is recognized as a gain or loss in other operating income or expenses, respectively.

Grants and subsidies from third parties that serve to promote investment are reflected in the statement of financial position under other liabilities and amortized to income over the useful lives of the respective investments in property, plant or equipment, or in line with the terms of the grant or subsidy.

Investment property comprises land and buildings not being used for operational or administrative purposes. It is measured using the cost model. The fair value of this property reported in the Notes is primarily determined on the basis of internal valuations using the income approach, while that of undeveloped sites is mainly calculated using the market comparison approach.

Impairment testing

An impairment test is performed if there is an indication of possible impairment for an intangible asset, an item of property, plant and equipment, or a cash-generating unit or unit group to which goodwill has been allocated. Other intangible assets with an indefinite useful life (such as the Bayer Cross trademark), intangible assets that are not yet available for use (such as R&D projects) and cash-generating units or unit groups to which goodwill has been allocated are additionally tested annually for impairment.

A cash-generating unit is the smallest identifiable group of assets generating cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The Bayer Group primarily regards product families as well as seeds and the corresponding traits as cash-generating units and subjects them to impairment testing. Goodwill is tested for impairment at the reporting segment level.

Impairment testing involves comparing the carrying amount of each cash-generating unit or unit group, intangible asset or item of property, plant and equipment to the recoverable amount, which is the higher of its fair value less costs of disposal or value in use. If the carrying amount exceeds the recoverable amount, an impairment loss must be recognized for the difference. In this case an impairment loss is first recognized on any goodwill allocated to the cash-generating unit or unit group. Any remaining impairment loss is allocated among the other noncurrent nonfinancial assets in proportion to their carrying amounts, unless this is prohibited under any other rule. The resulting expense is reflected in the operating expense item in which the depreciation or amortization of the respective asset is recognized. The same applies to income from impairment loss reversals. Impairment losses recognized on goodwill are included in other operating expenses.

The recoverable amount is generally determined on the basis of the fair value less costs of disposal, taking into account the present value of the future net cash flows as market prices for the individual units are not normally available. These are forecasted on the basis of the Bayer Group’s current planning, which has a planning horizon of up to four years and includes exchange rate assumptions at the time of planning. Forecasting involves making assumptions, especially regarding future selling prices, sales volumes, costs, market growth rates and economic cycles. These assumptions are based on internal estimates along with external market studies. Where the recoverable amount is the fair value less costs of disposal, measurement is undertaken from the viewpoint of an independent market participant. Where the recoverable amount is the value in use, the object of valuation is measured as currently used. In either case, net cash flows beyond the planning period are determined on the basis of long-term business expectations using individually calculated growth rates. The fair value less costs of disposal is determined on the basis of unobservable inputs (Level 3).

The net cash inflows are discounted at a rate equivalent to the weighted average cost of equity and debt capital. To allow for the different risk and return profiles of the Bayer Group's principal businesses, the after-tax cost of capital is calculated separately for each reporting segment and certain cash-generating units and unit groups while taking into account regional focus areas, and a segment-specific capital structure is defined by benchmarking against comparable companies in the same industry sector. The cost of equity corresponds to the return expected by stockholders, while the cost of debt is based on the conditions on which comparable companies can obtain long-term financing. Both components are derived from capital market information.

Although the estimates of the useful lives of certain assets, assumptions concerning the macroeconomic environment and industry developments, and estimates of the discounted future cash flows are believed to be appropriate, changes in assumptions or circumstances could require changes in the carrying amounts. This could lead to the recognition of additional impairment losses in the future or – except in the case of goodwill – to reversals of previously recognized impairment losses.

Leases

A lease is established by a contract that conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As lessee, Bayer generally recognizes the present value of the future lease payments as a financial liability. The lease payments are split into principal and interest portions according to the effective-interest method. In line with this and taking into account any further cost components, the right-of-use asset (the asset that reflects the right to use the underlying asset) is capitalized under property, plant and equipment at the inception of the lease. The right-of-use asset is recognized at amortized cost and depreciated by the straight-line method.

Use is made of the recognition exemptions for certain leases in which the underlying assets are of low value and also for short-term leases. The lease payments under these contracts are recognized as other operating expenses on a straight-line basis over the lease term.

Bayer exercises the accounting policy option under IFRS 16 (Leases) available for lessees not to apply this standard to leases of intangible assets.

For certain contracts with both lease and nonlease components, Bayer as lessee applies the practical expedient not to separate these components but to recognize them collectively as a single lease component.

Payments under intra-Group leases are generally presented as expenses or income in segment reporting in line with the internal reporting system.

Lease contracts in which Bayer acts as the lessor and substantially all the risks and rewards of utilizing the underlying asset are transferred to the lessee are classified as finance leases. The net investment in the lease is recognized as a receivable. In the case of operating leases where Bayer is the lessor, the leased assets continue to be capitalized, and the lease payments are recognized in income on a straight-line basis over the lease term.

Financial assets

Financial assets comprise receivables, acquired equity and debt instruments, cash and cash equivalents, and derivatives with positive fair values. A financial asset is initially recognized on the settlement date at fair value, plus transaction costs in most cases.

The classification and measurement of financial assets is based in each case on the business model and the characteristics of the cash flows. Trade accounts receivable and other debt instruments are measured at amortized cost using the effective-interest method, at fair value through profit or loss (such as money market funds and effective initial funds) or at fair value through other comprehensive income (such as trade accounts receivable that can potentially be transferred as part of factoring agreements). Equity instruments are generally held for medium- to long-term strategic purposes and are therefore measured at fair value through other comprehensive income. Otherwise, they are measured at fair value through profit or loss, like for example the shares in Century Therapeutics, Inc., United States, and Pyxis Oncology, Inc., United States.

Under the simplified impairment model, a default on receivables measured at amortized cost using the effective-interest method that is expected over the respective term (stage 2 of the impairment model) is determined for trade accounts receivable based on portfolio-specific default rates. These expected default rates are mainly based on the average defaults on receivables in recent years. These default rates are adjusted during the year for the respective customer portfolio if a significant change in the default rate is expected in the future. In determining the expected default rates, we take into account the business model, the respective customer and the economic environment of the geographic region. This is achieved by applying specific default rates for the individual Group companies and, in the case of smaller companies, making a standard calculation in countries with a comparable credit risk. Further differentiation is achieved by taking into account the segments’ various customer groups. Throughout the Bayer Group, customers are also assigned to risk classes with different expected default rates depending on their individual credit risk assessments.

Where action such as insolvency or comparable proceedings has been initiated against a defaulter or other objective indications exist that receivables are impaired (such as a considerable worsening of creditworthiness or a financial restructuring), the receivables are individually tested for impairment (stage 3 of the impairment model). In addition, all receivables more than 90 days past due are individually tested for impairment during the year.

For other financial assets measured at amortized cost, the expected credit losses that would result from potential default events within the next 12 months – as determined using the Monte Carlo simulation method – are recognized through profit or loss on first-time recognition and on subsequent measurement (stage 1 of the impairment model). In the event of a significant increase in the default risk, which is defined as a more than 0.25% increase in the probability of default with respect to the default risk on first-time recognition, assets are reclassified to stage 2 of the impairment model, taking into account the expected credit losses over the respective asset maturities. An impairment loss is recognized if there are objective indications of an impairment.

Financial assets are derecognized when contractual rights to receive cash flows from the financial assets expire or the financial assets were transferred together with all material risks and benefits. Receivables are also derecognized if they have been finally assessed as irrecoverable and we have ceased efforts to collect them following the completion of insolvency proceedings, for example. Receivables are not derecognized while they remain subject to enforcement.

Inventories

Inventories are recognized at their cost of acquisition or production (production-related full costs) – calculated by the weighted-average method – or at their net realizable value, whichever is lower.

Cash and cash equivalents

Cash includes cash in hand, checks received and balances with banks and companies. Cash equivalents are financial investments with maximum maturities of three months from the acquisition date that are subject to no more than insignificant fluctuations in value and will give rise to predefined cash inflows. Cash and cash equivalents are measured at amortized cost.

Provisions for pensions and other post-employment benefits

Within the Bayer Group, post-employment benefits are provided under defined contribution and/or defined benefit plans. In the case of defined contribution plans, the company pays contributions to publicly or privately administered pension plans on a mandatory, contractual or voluntary basis. Once the contributions have been paid, the company has no further payment obligations. The regular contributions constitute operating expenses and as such are included in the respective income statement items.

All remaining commitments under pension and other post-employment benefit plans are measured in terms of the defined benefit obligation (DBO) using the projected unit credit method, with entitlements already earned being measured at the present value of the DBO. This is based on factors such as expected future salary and pension increases, changes in healthcare costs, mortality rates and beneficiary structure. The uniform discount rates are based on the yields of high-quality bond portfolios (AA-rated corporate bonds) in specific currencies, extrapolated where necessary to cover the future period for which sufficiently accurate bond yields are not available. Where there is insufficient empirical data on corporate bond yields with longer-term residual maturities, the yield structure is derived from government bond yields plus spread to reflect the higher risk of default. The bond portfolios consist of bonds with weighted residual maturities approximately equal to the duration of the expected disbursements from the pension plans. The pension service cost and the net interest on the net liability are determined on the basis of the assumptions as of the previous closing date.

For funded obligations, the net liability is determined by deducting the fair value of plan assets. The obligations and plan assets are measured at regular intervals. Where no quoted prices for plan assets exist in active markets, their fair values are determined by applying the usual measurement methods and on the basis of freely accessible data such as interest rate curves and credit spreads. The net defined benefit asset is recognized in other receivables.

Current and past service cost and effects of plan settlements are recognized in operating income. The net interest on the net liability is reflected in the financial result under other financial income and expenses. The effects of remeasurements of the net defined benefit liability are reflected in the statement of comprehensive income as other comprehensive income. They consist of actuarial gains and losses, the return on plan assets and changes in the effects of the asset ceiling, less the amounts included in net interest and related deferred taxes.

Other provisions

Other provisions are recognized for present legal and constructive obligations arising from past events that will probably give rise to a future outflow of resources, provided that a reliable estimate can be made of the amount of the obligations. They are established at the present value of the expected future cash outflows and recognized in the respective operating expense items. The interest cost is reflected in the financial result under other financial income and expenses. If the projected obligation declines as a result of a change in the estimate, the provision is reversed by the corresponding amount and the resulting income recognized in the operating expense item(s) in which the original charge was recognized.

Costs arising from obligations to decommission or dismantle property, plant and equipment are included as a component of the acquisition or construction costs for property, plant or equipment if they can be reliably estimated, and are covered by provisions. If changes in the estimates require the provisions to be adjusted, the carrying amounts of the respective assets are reduced or increased accordingly.

Estimating the future costs for environmental protection and similar measures involves, in particular, uncertainties with regard to the applicable laws and regulations and the actual local conditions. Significant factors in estimating the costs include previous experiences in similar cases, expert opinions, current costs and new developments affecting costs, management's interpretation of current environmental regulations, the financial position of third parties that may become obligated to participate in any remediation costs on the basis of joint liability, and the remediation methods likely to be deployed. Changes in these assumptions could impact future reported results of the Group. Taking into consideration the experience gained to date and the knowledge and circumstances as of the closing date, provisions are believed to be adequate. However, material additional costs could be incurred beyond the amounts accrued that result in additional expenses in subsequent periods.

Provisions for employee termination benefits are established where the amounts of severance payments, additional pension plan modules to be granted or other benefits can be reliably estimated. However, material additional costs could be incurred beyond the amounts accrued that result in additional expenses in subsequent periods.

Obligations arising from stock-based programs that involve cash settlement pursuant to IFRS 2 (Share-based Payment) are covered by provisions in the amount of the fair value of the obligations existing as of the closing date. All resulting changes in value are recognized in profit or loss.

Provisions for litigations are established under certain conditions in the case of legal risks. Litigations and other judicial proceedings often raise complex issues and are subject to many uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, the jurisdiction in which each suit is brought and differences in applicable law. The outcome of any current or future proceedings cannot normally be predicted. It is particularly difficult to assess the likely outcomes of class actions for damages or mass compensation claims in the United States, which may give rise to significant financial risks for the Bayer Group. As a result of a final judgment in court proceedings, regulatory decisions or the conclusion of a settlement, the Bayer Group may incur charges for which no accounting measures have yet been taken for lack of reasonable estimability or which exceed presently established provisions and the insurance coverage.

The Bayer Group considers the need for accounting measures in respect of pending or future litigations, and the extent of any such measures, on the basis of the information available to its legal department and in close consultation with legal counsel acting for the Bayer Group. Where it is more likely than not that such a litigation will result in an outflow of resources that is already reasonably estimable, a provision for litigation is recorded in the amount of the present value of the expected cash outflows. Such provisions cover the estimated payments to the plaintiffs, court and procedural costs, attorney costs and the cost of potential settlements.

It is sometimes impossible to reliably determine the existence of a present obligation or reasonably estimate the probability that a potential outflow of resources will result from a pending or future litigation. The status of the material "legal risks" is described in Note [30]. Due to the special nature of these litigations, provisions generally are not established until initial settlements allow an estimate of potential amounts or judgments have been issued. Provisions for legal defense costs are established if it is probable that material costs will have to be incurred for external legal counsel to defend the company's legal position.

Internal and external legal counsel evaluate the current status of the Bayer Group's material legal risks at the end of each reporting period. The need to establish or adjust a provision and the amount of the provision or adjustment are determined on this basis. Adjusting events are reflected up to the date of preparation of the consolidated financial statements. The measurement of provisions in the case of class actions or mass compensation claims is mainly based on any settlements reached during the past year and on pending or anticipated future claims. With respect to the proceedings outlined in Note [30] "Legal risks", further information on litigations, estimated financial effects, uncertainties and contingent liabilities, as well as the recognition and amounts of individual provisions, can be withheld under IAS 37.92 if disclosing it could significantly prejudice the company's position.

Financial liabilities

Financial liabilities are generally measured at amortized cost using the effective-interest method. Derivatives with negative fair values, liabilities for contingent consideration in business combinations and liabilities designated at fair value through profit or loss are measured at fair value.

Financial liabilities are derecognized when the contractual obligation is discharged or canceled, or has expired.

Supply chain financing programs (also known as reverse factoring) are used in the Bayer Group that enable suppliers to choose to have individual invoices paid prior to their due date. As part of such programs, the supplier concludes a financing agreement with a bank or platform operator without Bayer's involvement and, upon request, is paid the invoice amount by the bank in advance less an interest component. Bayer generally pays the invoice amount to the bank when due; the payment deadlines lie within the usual scope for the industry. Bayer has assessed these programs based on various criteria and concluded that the associated liabilities retain the character of trade accounts payable. The related payments to the bank are therefore classified as a cash outflow from operating activities.

Derivatives

The Bayer Group uses derivatives to mitigate the risk of changes in exchange rates, interest rates or commodity prices (such as for soybeans and corn) and to hedge the stock-based compensation programs issued until 2020. The instruments used include forward exchange contracts, interest-rate swaps, forward commodity contracts and forward stock transactions. Derivatives are recognized at the trade date and are remeasured to fair value on each closing date. Positive fair values are reflected in financial assets, negative fair values in financial liabilities.

Contracts for the purchase and sale of nonfinancial items (such as raw material supply contracts) that are concluded for the company's own purposes are treated as pending transactions (own-use exemption) and not accounted for as derivatives. Other contracts for the purchase and sale of nonfinancial items are accounted for as derivatives at fair value through profit or loss under certain conditions (such as nonfulfillment of own-use exemption).

Where embedded derivatives are identified in contracts, they are assessed for any close economic relationship with the host contract. If no such relationship is found, they are accounted for separately as derivatives. Embedded derivatives that are contained in financial assets are not separated; instead, the entire instrument is measured at fair value through profit and loss.

Such host contracts are generally sale or purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with exchange-rate or price fluctuations, for example. The internal measurement of embedded derivatives is performed using appropriate valuation models, such as discounted cash flow models, which are based on unobservable inputs (Fair Value Level 3). The relevant models include planned sales and purchase volumes, and prices derived from market data. Fair value changes over the contract term are recognized in other operating income or expenses.

Derivatives are recognized at fair value through profit or loss unless they qualify for hedge accounting. This mainly applies to the exchange hedging of accounting risks, the effects of which are reflected in other financial income and expenses as exchange gains or losses.

The effective portion of derivatives designated as cash flow hedges is initially recognized outside profit or loss in other comprehensive income. Any ineffective portions are recognized directly in profit or loss. Only when the hedged item is recognized through profit or loss is the effective portion of the hedging instrument also recognized in the income statement.

In the case of commodity futures and options that hedge purchase prices, reclassification is to the cost of goods sold. For commodity futures that hedge selling prices, reclassification is to sales. The effects of interest-rate hedges are reflected in interest income or expense. The effects of the hedging of forecasted sales transactions in foreign currencies are recognized in other operating income or expenses at the time of revenue recognition. The hedging of stock-based employee compensation is recognized in the respective operating expense items of “Enabling Functions and Consolidation” over the duration of the Aspire programs.

Changes in the fair values of derivatives designated as fair value hedges are recognized in income along with the adjustments in the carrying amounts of the hedged items. The effects of interest-rate hedges are reflected in interest income or expense.

Acquisition accounting

An acquisition is a transaction or other event that involves the purchase of an integrated set of activities and assets that include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. Acquired businesses are accounted for using the acquisition method, which in principle requires that the assets acquired and liabilities assumed be recorded at their respective fair values on the date Bayer obtains control. The difference between the consideration transferred (plus the fair value of the pre-existing equity interest in the acquiree in the case of step acquisitions) and the fair values of the acquired assets and assumed liabilities is recognized as goodwill. The results of foreign currency cash flow hedges are factored into the translation of foreign currency purchase price payments. For significant acquisitions, the purchase price allocation is carried out with assistance from independent third-party valuation specialists. The related valuations are based on the information available at the acquisition date. Ancillary acquisition costs are recognized as expenses in the periods in which they occur.

The transferred consideration can include contingent consideration that is payable to the previous owners of the acquired company following the acquisition date upon reaching certain milestones, such as progress in the trial or regulatory approval process or surpassing certain sales thresholds. This is recognized at fair value as part of the consideration transferred for the acquired company and is generally recognized as a financial (purchase price) liability. All changes in fair value after the acquisition date are recognized under EBIT in the consolidated financial statements. However, changes in the fair value of the contingent consideration that are based on circumstances already existing on the date of acquisition are adjusted outside profit or loss within the measurement period of 12 months.

The application of the acquisition method requires certain estimates and assumptions to be made, especially concerning the fair values of the acquired intangible assets, property, plant and equipment and the liabilities assumed at the acquisition date, and the useful lives of the acquired intangible assets, property, plant and equipment. Measurement is based to a large extent on anticipated cash flows. If actual cash flows vary from those used in calculating fair values, this may materially affect the Group’s future results of operations. In particular, the estimation of discounted cash flows from intangible assets under development, patented and nonpatented technologies, customer relationships and brands is based on assumptions concerning, for example:

- The outcomes of R&D activities regarding the efficacy of a crop protection product, trait, seed or drug development candidate, and results of clinical trials
- The probability of obtaining regulatory approvals in individual countries

// Long-term sales projections
// Possible selling price erosion due to offerings of unpatented products following patent expirations
// The behavior of competitors (launch of competing products, marketing initiatives, etc.)

If the assets acquired do not constitute a business, the individually identifiable assets acquired and liabilities assumed are recognized. The acquisition costs are allocated to the individual assets and liabilities at the acquisition date based on their fair values. Such a transaction or event does not result in goodwill. This also applies if the optional concentration test finds that the transaction in question does not constitute the acquisition of a business.

Divestment accounting

Divestments of shares in subsidiaries that result in a loss of control are generally accounted for in profit or loss. When shares in a subsidiary are gradually divested in several tranches, a reduction in the majority shareholding without the loss of control is reflected outside profit or loss and results in an increase in the equity attributable to noncontrolling interest. After the loss of control, the interest remaining at the time of the loss of control is recognized at fair value.

Impact of the macroeconomic situation

In 2023, Bayer was impacted particularly by the geopolitical situation, inflation and the development of interest rates.

The Group’s sales and earnings as well as its financial position and results of operations were only marginally impacted by the war in Ukraine and its direct consequences in 2023. Together, Russia and Ukraine accounted for about 3% of our sales in 2023. As in the previous year, we did not register any major increase in past-due receivables in Russia or Ukraine. Based on a risk analysis conducted at the level of individual customers, there were no significant write-downs of receivables.

The stability of international payment transactions involving Russia is still subject to considerable uncertainties, and we are continually evaluating suitable risk mitigation measures. There are currently no significant restrictions.

We are continually analyzing the future direct and indirect effects of economic developments and sanctions on the valuation of individual assets and liabilities.

The conflict in the Middle East did not have a material impact on Group sales and earnings, the financial position or the results of operations in 2023.

Energy procurement costs rose by around 8.7% (€74 million) year on year in 2023. The developments pertaining to LNG procurement, the further development of energy-efficiency measures, the filling of gas storage facilities in Germany and the easing of the situation on the gas markets currently mean that supply chains and our production are not impeded. We nevertheless continue to monitor both global-market and political developments.

Inflation and the associated rise in interest rates had an impact on the impairment testing of our intangible assets and property, plant and equipment (see Note [14]), the measurement of pension provisions (see Note [22]) and other long-term obligations, as well as financial instruments (see Note [27]).

Beyond this, we did not see any material financial impact in 2023.

Impact of climate-related matters

Climate change can give rise to estimation uncertainties and risks with respect to accounting and the possible effects on Bayer's financial position and results of operations.

Due to their potential impact on our financial position and results of operations, climate-related risks are included in our Group-wide enterprise risk management (ERM) system. In addition, we are conducting a continuous analysis of the impact of climate change on our business operations as well as activities in upstream and downstream value chains. The dimensions of climate-change impact analyzed include both drivers of transition effects as well as drivers of immediate and long-term physical effects. Physical climate-related risks can arise as a result of longer-term shifts in general climate conditions, while transition climate-related risks may result for companies from the transition toward a low-carbon economy.

The climate models we have analyzed project that, over the long term, there will be an increase in extreme weather conditions (such as droughts, heavy rains and storms) in terms of frequency and intensity, as well as a shift in climate zones. Potential financial consequences resulting for our sites due to climate-related natural events are hedged through insurance coverage to the extent customary in the industry. One example of a climate-related natural event was Hurricane Ida in 2021, which caused production disruptions that year at our sites in Soda Springs and Luling, United States. We therefore received insurance compensation of €195 million in 2023 as a result of our property and business interruption insurance coverage (see Note [7]).

In 2023, climate-related matters did not necessitate any changes to the expected useful lives of Group assets, such as due to changing regulatory requirements or climate-related natural events. Likewise, physical or transition-related climate risks did not lead to any significant depreciation or amortization. We are committed to continuously developing our portfolio of assets by investing in sustainable technologies in order to reduce greenhouse gas emissions.

The shift in climate zones also presents an elevated risk of crop losses and thus risks for the agricultural value chain as a whole. Weather and climate effects are of particular significance for the Crop Science Division and its downstream value chain in crop cultivation. We are working to advance climate change adaptation while also aiming to counteract changing environmental conditions through innovation and new approaches in order to help strengthen climate resilience. The objective is to offer solutions that put our customers, patients and consumers in a better position to overcome the challenges.

Transforming our product portfolio and leveraging new business models is therefore one of the three pillars of our greenhouse gas reduction program (see Management Report A 1.2.1 “Strategy and Targets”). Our efforts to support climate change adaptation can be seen in our innovative plant breeding activities, for example. Our Preceon™ Smart Corn System, for instance, produces hybrid seed varieties that grow into short-stature corn crops that potentially do not bend or break as easily as standard-height corn in strong winds or heavy rain, thus minimizing crop losses. Our Preceon™ Smart Corn System is set to be launched for the first time in 2024 and is included in our product innovation pipeline (see Management Report A 1.3 “Focus on Innovation”). Our business planning takes account of research and development expenses for product innovations that can help adapt our business model to the impact of climate change.

The other two pillars of our greenhouse gas reduction program concern the continual reduction of greenhouse gas emissions at our company and across our entire value chain to help limit global warming to 1.5° Celsius in accordance with the UN Sustainable Development Goals and the Paris Agreement. As part of our greenhouse gas reduction program, we aim to reach net zero emissions, including throughout our entire value chain, by 2050 or earlier. We define net zero greenhouse gas emissions as a 90% reduction in overall greenhouse gas emissions in our own operations (Scope 1 and 2) and across our value chain (Scope 3) compared with the 2019 baseline.

Bayer is looking to become carbon-neutral at all of its sites (Scope 1 and 2) by 2030. By the end of 2029, we aim to reduce our greenhouse gas emissions in our own operations by 42% (in absolute terms) compared with the 2019 baseline. This includes direct (Scope 1) and indirect (Scope 2, market-based) emissions produced by Bayer sites with an annual energy consumption in excess of 1.5 terajoules. We will offset all of the remaining greenhouse gas emissions from our own operational processes by purchasing certificates from verified climate protection projects, primarily in forestry and agriculture.

With respect to our value chain, our target is to reduce greenhouse gas emissions in the relevant Scope 3 categories by at least 12.3% (in absolute terms) by 2029 (compared with the 2019 baseline). In line with the Science Based Target initiative (SBTi), the Scope 3 categories in the GHG Protocol “Corporate Value Chain (Scope 3) Accounting & Reporting Standard” that are relevant for Bayer are as follows: (3.1) purchased goods and services, (3.2) capital goods, (3.3) fuel- and energy-related activities, (3.4) (upstream) transportation and distribution, and (3.6) business travel. Total Scope 1, 2 and 3 emissions cover all categories defined in the GHG Protocol.

An important lever for achieving our climate targets is the purchase of electricity from renewable sources. By 2029, we aim to ensure 100% of the electricity we procure is from renewable energy sources. We therefore conclude direct supply agreements for electricity from renewable energy sources or purchase corresponding renewable energy credits. In May 2023, we announced the signing of a long-term structured renewable energy credit (REC) purchase agreement in the United States under which up to 1.4 TWh of renewable energy will be generated annually and accordingly up to 1.4 million RECs can be acquired by us annually. The agreement will secure 40% of Bayer’s global and 60% of Bayer’s US-purchased electricity demand out of renewable sources. The contract is designed as a contract of difference between fixed strike prices and energy prices. Full capacity is currently expected to be reached during 2028. The agreement has an expected initial term of 24 years during which RECs can be purchased. As operations of the facilities have not yet started, no RECs were purchased in 2023. The first RECs are expected to be generated, purchased and retired in 2024 (for further information, see Note [27]).

In addition, we actively participate in the voluntary carbon market, where we both purchase carbon offsets from verified climate protection projects as well as provide our own carbon offsets. In 2023, we offset 0.6 million metric tons of CO_2 equivalents via external projects to achieve climate neutrality at our sites. Besides the voluntary carbon market, we also participate in mandatory emissions trading. For further information on how carbon credits and offsets are accounted for, see Note [3].

The Crop Science Division’s medium-term planning contains climate-related investments in connection with the implementation of the greenhouse gas reduction program that are also taken into account in impairment testing. Since the risks and opportunities from the impact of climate change are balanced, there is currently no need to revise the long-term growth rate. Based on currently available information, there are no indications that additional impairment losses will be required over and above the impairment losses already recognized (see Note [14]).

We continuously monitor the risks resulting from climate-related matters and develop innovative and sustainable methods to minimize them. Based on present information and assumptions, we do not currently see any fundamentally changed expectations with regard to the Group’s financial position and results of operations.

4. Segment reporting

At Bayer, the Board of Management – as the chief operating decision maker – allocates resources to the operating segments and assesses their performance. The reportable segments and regions are identified, and the disclosures selected, in line with the internal financial reporting system (management approach) and based on the Group accounting policies outlined in Note [3].

As of December 31, 2023, the Bayer Group comprised the three reportable segments Crop Science, Pharmaceuticals and Consumer Health. Their activities are as follows:

B 4/1

Activities of the Segments

Segment	Activities
Crop Science	Development, production and marketing of a broad portfolio of products in seeds and plant traits, crop protection, digital solutions and customer services to promote sustainable agriculture
Pharmaceuticals	Development, production and marketing of prescription products, especially for cardiology and women's health; specialty therapeutics in the areas of oncology, hematology, ophthalmology and – in the medium term – cell and gene therapy; diagnostic imaging equipment and the necessary contrast agents
Consumer Health	Development, production and marketing of mainly nonprescription (OTC = over-the-counter) products in the dermatology, nutritional supplements, digestive health, allergy, cough and cold, and pain and cardiovascular risk prevention categories

Information on other business activities and segments that are not reportable is provided under "All Other Segments." These include Bayer 04 Leverkusen Fussball GmbH and Bayer Gastronomie GmbH.

The information provided under "Enabling Functions and Consolidation" mainly relates to Group-wide competence centers and business support services as well as "Leaps by Bayer," which focuses on the development of crucial, cross-species innovations. "All Other Segments" and "Enabling Functions and Consolidation" in the Management Report are combined under the Reconciliation. It also includes the increase or decrease in expenses for Group-wide long-term stock-based compensation (Aspire) arising from fluctuations in the performance of Bayer stock and other factors, and the consolidation of intersegment sales (2023: €57 million; 2022: €22 million). Also recognized are gains and losses incurred upon the ongoing revaluation of nonmonetary assets and liabilities and of equity under IAS 29 for Bayer S.A. in Argentina and for Bayer Türk Kimya Sanayii Limited Sirketi, Monsanto Gida Ve Tarim Ticaret Ltd Sirketi and Bayer Tohumculuk ve Tarim Limited Sirketi in Turkey. Included here in addition are income and expenses resulting from certain contingent liabilities unrelated to the current business along with those pertaining to the comparable central functions of the acquired Monsanto Group. Chief among the latter are the matters relating to lawsuits concerning polychlorinated biphenyls (PCBs) referred to in Note [30], "Legal risks".

The segment data is calculated as follows:

- The intersegment sales reflect intra-Group transactions effected at transfer prices fixed on an arm's-length basis.
- The net cash provided by operating activities is the cash flow from operating activities as defined in IAS 7 (Statement of Cash Flows).
- Leases between fully consolidated companies continue to be recognized as operating leases under IAS 17 within the segment data in the consolidated financial statements of the Bayer Group even after the first-time application of IFRS 16 as of January 1, 2019. This does not have any relevant impact on the respective key data used in the steering of the company and internal reporting to the Board of Management as the chief operating decision maker.

The key data by segment is as follows:

B 4/2

Key Data by Segment

	Crop Science		Pharmaceuticals		Consumer Health	
€ million	2022	2023	2022	2023	2022	2023
Net sales (external)	25,169	23,270	19,252	18,081	6,080	6,027
Currency- and portfolio-adjusted change[1]	+ 15.6%	− 3.7%	+ 1.1%	− 0.4%	+ 8.4%	+ 6.3%
Intersegment sales	9	19	11	30	0	7
Net sales (total)	25,178	23,289	19,263	18,111	6,080	6,034
EBIT[1]	2,950	(3,486)	4,985	3,971	957	1,158
EBITDA before special items[1]	6,867	5,038	5,873	5,189	1,367	1,411
EBITDA margin before special items[1]	27.3%	21.7%	30.5%	28.7%	22.5%	23.4%
ROCE[1]	5.4%	− 6.6%	19.2%	14.7%	7.5%	9.1%
Net cash provided by operating activities	3,394	1,850	3,588	3,409	1,046	951
Capital expenditures (newly capitalized)	1,786	1,601	1,317	1,212	200	171
Depreciation, amortization and impairments	4,596	8,454	1,227	1,050	364	210
of which impairment losses/impairment loss reversals	2,186	6,082	346	142	2	(151)
Clean depreciation and amortization[1]	2,456	2,490	1,137	994	364	363
Research and development expenses	2,876	1,896	3,397	3,327	221	224

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

B 4/2 (continued)

Key Data by Segment

	All Other Segments		Enabling Functions and Consolidation[2]		Group	
€ million	2022	2023	2022	2023	2022	2023
Net sales (external)	217	238	21	21	50,739	47,637
Currency- and portfolio-adjusted change[1]	+ 2.9%	+ 9.1%	–	–	+ 8.7%	− 1.2%
Intersegment sales	2	1	(22)	(57)	–	–
Net sales (total)	219	239	(1)	(36)	50,739	47,637
EBIT[1]	79	96	(1,959)	(1,127)	7,012	612
EBITDA before special items[1]	151	163	(745)	(95)	13,513	11,706
EBITDA margin before special items[1]	–	–	–	–	26.6%	24.6%
ROCE[1]	–	–	–	–	7.7%	0.7%
Net cash provided by operating activities	–	–	–	–	7,093	5,117
Capital expenditures (newly capitalized)	43	105	293	241	3,639	3,330
Depreciation, amortization and impairments	71	67	245	239	6,503	10,020
of which impairment losses/ impairment loss reversals	(1)	–	21	38	2,554	6,111
Clean depreciation and amortization[1]	72	67	227	203	4,256	4,117
Research and development expenses	4	7	74	(83)	6,572	5,371

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”
[2] The figures presented here are the unallocated components of the Enabling Functions.

Reconciliations

The reconciliation of EBITDA before special items, EBIT before special items and EBIT to Group income before income taxes is given in the following table:

B 4/3

Reconciliation of Segments' EBITDA Before Special Items to Group Income Before Income Taxes

€ million	2022	2023
EBITDA before special items of segments	14,258	11,801
EBITDA before special items of Enabling Functions and Consolidation	(745)	(95)
EBITDA before special items[1]	**13,513**	**11,706**
Depreciation, amortization and impairment losses/loss reversals before special items of segments	(4,029)	(3,914)
Depreciation, amortization and impairment losses/loss reversals before special items of Enabling Functions and Consolidation	(227)	(203)
Depreciation, amortization and impairment losses/loss reversals before special items	**(4,256)**	**(4,117)**
EBIT before special items of segments	10,229	7,887
EBIT before special items of Enabling Functions and Consolidation	(972)	(298)
EBIT before special items[1]	**9,257**	**7,589**
Special items of segments	(1,258)	(6,148)
Special items of Enabling Functions and Consolidation	(987)	(829)
Special items[1]	**(2,245)**	**(6,977)**
EBIT of segments	8,971	1,739
EBIT of Enabling Functions and Consolidation	(1,959)	(1,127)
EBIT[1]	**7,012**	**612**
Financial result	(2,342)	(2,233)
Income before income taxes	**4,670**	**(1,621)**

[1] For definition see A 2.3 “Alternative Performance Measures Used by the Bayer Group.”

Information on geographical areas

The following table provides a regional breakdown of external sales by market and of intangible assets, property, plant and equipment:

B 4/4

Information on Geographical Areas

	Net sales (external) by market		Intangible assets and property, plant and equipment	
€ million	2022	2023	2022	2023
Europe/Middle East/Africa	14,429	14,086	24,624	23,979
of which Germany	2,477	2,448	15,167	15,197
of which Switzerland	600	567	4,665	4,324
North America	17,571	16,254	47,729	40,579
of which United States	15,685	14,587	46,245	39,516
Asia/Pacific	9,451	8,369	1,878	1,664
of which China	4,259	3,624	675	695
Latin America	9,288	8,928	3,274	2,761
of which Brazil	5,322	4,967	1,836	1,466
Total	**50,739**	**47,637**	**77,505**	**68,983**

Information on major customers

Revenues from transactions with a single customer in no case exceeded 10% of Bayer Group sales in 2023 or 2022.

Information on strategic business entities, products and categories

The following tables provide a breakdown by strategic business entity in the Crop Science segment, by product in the Pharmaceuticals segment, and by category in the Consumer Health segment.

B 4/5

Sales by Strategic Business Entity – Crop Science

€ million	2022	2023
Crop Science	**25,169**	**23,270**
Corn Seed & Traits	6,089	6,857
Herbicides	8,325	5,926
Fungicides	3,273	3,444
Soybean Seed & Traits	2,462	2,571
Insecticides	1,584	1,596
Cotton Seed	685	575
Vegetable Seeds	717	735
Other	2,034	1,566

B 4/6

Sales by Product – Pharmaceuticals

€ million	2022	2023
Pharmaceuticals	**19,252**	**18,081**
Xarelto™	4,516	4,081
Eylea™	3,213	3,231
Mirena™/Kyleena™/Jaydess™	1,277	1,209
Nubeqa™	466	869
Kogenate™/Kovaltry™/Jivi™	847	738
YAZ™/Yasmin™/Yasminelle™	790	670
Adempas™	652	660
Aspirin™ Cardio	788	626
Adalat™	831	563
Stivarga™	613	523
CT Fluid Delivery	494	513
Ultravist™	436	474
Gadovist™ product family	469	463
Kerendia™	107	270
Betaferon™/Betaseron™	311	232
Other	3,442	2,959

B 4/7

Sales by Category – Consumer Health

€ million	2022	2023
Consumer Health	**6,080**	**6,027**
Nutritionals	1,563	1,432
Allergy & Cold	1,377	1,433
Dermatology	1,287	1,352
Pain & Cardio	905	873
Digestive Health	895	878
Other	53	59

5. Scope of consolidation; subsidiaries and affiliates

5.1 Changes in the scope of consolidation

Changes in the scope of consolidation in 2023 were as follows:

B 5.1/1

Change in the Number of Consolidated Companies

Bayer AG and consolidated companies	Germany	Other countries	Total
January 1, 2023	44	310	354
Changes in scope of consolidation	(2)	(11)	(13)
Additions[1]	–	3	3
Retirements	–	(4)	(4)
December 31, 2023	**42**	**298**	**340**

[1] Acquisitions, newly established companies and acquisition of control

In conjunction with the acquisition of the consumer care business of Merck & Co., Inc., United States, Bayer entered into a strategic collaboration with that company in 2014. This collaboration is included in the consolidated financial statements as a joint operation. Bayer and Merck & Co., Inc., have mutually agreed to collaborate on the development, production, life-cycle management and marketing of active ingredients and products in the field of soluble guanylate cyclase (sGC) modulation.

In addition, shares in 42 (2022: 43) associates and four (2022: five) joint ventures were accounted for in the consolidated financial statements using the equity method. Details of these companies are given in Note [16].

A total of 54 (2022: 67) subsidiaries, including one (2022: one) structured entity and nine (2022: 10) associates or joint ventures that in aggregate are immaterial to the Bayer Group's financial position and results of operations are neither consolidated nor accounted for using the equity method, but are recognized at fair value. The immaterial subsidiaries accounted for less than 0.1% of Group sales, less than 0.3% of equity and less than 0.2% of total assets.

Details of the companies included in the consolidated financial statements, the subsidiary and affiliated companies of the Bayer Group pursuant to Section 313, Paragraph 2 of the German Commercial Code, and a list of domestic subsidiaries that availed themselves in 2023 of certain exemptions granted under Section 264, Paragraph 3, and Section 264b of the German Commercial Code, are included in the audited consolidated financial statements that have been sent for entry into the Company Registry. This information can also be accessed at www.bayer.com/shareownership2023.

5.2 Business combinations and other acquisitions

Acquisitions in 2023

On February 13, 2023, we completed the acquisition of 100% of the shares in Blackford Analysis Ltd., United Kingdom, a global provider of radiology AI platform technology. Bayer paid an upfront consideration of around €46 million to acquire Blackford. Further amounts of up to around €54 million are payable upon the achievement of predefined research and development milestones. A liability of €30 million, weighted according to the probability that the payments will have to be made, was recognized for this purpose. The purchase price mainly pertained to goodwill, which in turn largely reflected the anticipated innovation potential and amounted to around €68 million based on the purchase price allocation. In addition, an amount of around €10 million was recognized for patents and technologies, some €2 million for other assets, and approximately €7 million for liabilities. The purchase price allocation was completed in the fourth quarter of 2023.

Blackford provides platform infrastructure and access to a rich clinical application (ClinApp) ecosystem focused on medical imaging and analytics. The acquisition follows a development and license agreement between the two companies in 2020 that laid the foundation for Bayer's recently launched medical imaging platform, Calantic™ Digital Solutions. The acquired companies are assigned to the Pharmaceuticals segment.

Acquisitions in 2022

On June 28, 2022, Bayer acquired 30% of the shares in Natsana GmbH, Germany, for a purchase price of around €96 million. The acquired shares are accounted for using the equity method. Natsana is an online-only provider focused on the sale and development of natural supplements such as vitamins, minerals, nutrients and probiotics. Its portfolio comprises over 100 products under its three main brands: Feel Natural, Nature Love and Natural Elements. Bayer will acquire the other 70% of shares in 2025 based on a buyout mechanism agreed to when closing the transaction. The company is assigned to the Consumer Health segment.

On August 1, 2022, Bayer increased its existing interest in CoverCress Inc., United States, from 5.7% to 64.7% for a purchase price of around €111 million. Since the minority shareholders Bunge and Chevron retained extensive rights relevant to business decisions, the acquired interest is recognized as an interest in an associate and accounted for using the equity method. In addition, there is an option to acquire the remaining 35.3%, which is anticipated to become available from 2027. CoverCress™ is a rotational cash crop which combines grain production with the environmental benefits of a cover crop without displacing other harvests. Oil extracted from CoverCress™ grain is designed to achieve a lower carbon intensity score. The company is assigned to the Crop Science segment.

5.3 Discontinued operations, assets and liabilities held for sale, and divestments

Discontinued operations

There were no discontinued operations to report in 2023 or 2022.

Assets and liabilities held for sale

The assets held for sale, net of directly related liabilities, totaled around €51 million as of December 31, 2023 (December 31, 2022: €3 million). They primarily pertained to the planned sale of administration buildings and the related land and property in Spain for approximately €36 million, and of a production facility of the Crop Science Division, also in Spain, for around €11 million.

Divestments

There were no significant divestments in 2023.

Divestments in 2022

On October 4, 2022, Bayer completed the sale and transfer of the Crop Science Division's Environmental Science Professional business to the private equity firm Cinven, United Kingdom. Environmental Science Professional is a global leader offering solutions to control pests, disease and weeds in nonagricultural areas such as vector control, professional pest management, vegetation management, forestry, and turf and ornamentals. The transaction was completed on October 4, 2022. The purchase price paid for the business amounted to approximately €2,299 million before customary purchase price adjustments. The divestment gain of €785 million was recognized in other operating income.

Notes to the Income Statements

6. Net sales

Total reported net sales in 2023 fell by €3,102 million, or 6.1%, year on year to €47,637 million. Sales were derived primarily from product deliveries (€43,352 million; 2022: €46,412 million) and licenses (€3,528 million; 2022: €3,504 million). The license revenues amounted to €2,721 million (2022: €2,571 million) for Crop Science, €806 million (2022: €930 million) for Pharmaceuticals and €1 million (2022: €3 million) for Consumer Health. Breakdowns of net sales by segment and geographical area are given in the overview in Note [4].

Sales of €2,026 million were recognized in 2023 (2022: €1,960 million) from performance obligations already satisfied in previous years. These sales primarily resulted from right-to-use licenses granted against sales-based royalties and from adjustments to refund liabilities for expected product returns and rebates to be granted.

Contractually agreed sales volumes pertaining to performance obligations not yet satisfied as of December 31, 2023, are expected to be reclassified to profit or loss as follows, taking into account anticipated sales deductions:

B 6/1

Allocation of Transaction Price to Unfulfilled Performance Obligations

€ million	2022	2023
Transaction price outstanding as of Dec. 31	**723**	**580**
of which to be recognized within 1 year	152	144
of which to be recognized between 1 and 2 years	138	137
of which to be recognized between 2 and 3 years	135	134
of which to be recognized between 3 and 4 years	133	132
of which to be recognized between 4 and 5 years	132	33
of which to be recognized after more than 5 years	33	–

The description above only accounts for customer contracts with an original contractual term of more than one year.

Contract liabilities mainly result from advance payments by customers for product deliveries and are predominantly recognized as sales within one year. Further significant amounts of contract liabilities comprised milestone payments already received for right-to-access licenses. The contract liabilities under right-to-access licenses will be recognized as sales over a period of more than five years.

The change in contract liabilities was due to the following factors:

B 6/2

Roll-Forward of Contract Liabilities

€ million	2022	2023
Contract liability balance as of Jan. 1	**4,822**	**4,724**
Additions	11,015	10,411
Revenue recognized in the current year that was included in the contract liability balance as of Jan. 1	(4,106)	(3,965)
Revenue recognized in the current year that was not included in the contract liability balance as of Jan. 1	(7,211)	(6,692)
Other	(23)	(59)
Exchange differences	227	(127)
Contract liability balance as of Dec. 31	**4,724**	**4,292**

Amounts for rebates, which are reported separately as refund liabilities, amounted to 9.9% of total net sales in 2023 (2022: 9.6%).

The refund liabilities for product returns amounted to 1.6% of total net sales in 2023 (2022: 1.4%).

7. Other operating income

Other operating income was comprised as follows:

B 7/1

Other Operating Income

€ million	2022	2023
Gains on retirements of noncurrent assets	1,745	198
Income from reversal of impairment losses on receivables	128	168
Income from reversal of unutilized provisions	165	224
Gains from derivatives	144	280
Sales revenues from products acquired through barter transactions	352	220
Miscellaneous operating income	505	807
Total	**3,039**	**1,897**

Gains on retirements of noncurrent assets primarily related to the sale of dermatology product rights in the amount of €36 million. The prior-year figure contained gains from the sale of our Environmental Science Professional business to the international private equity firm Cinven (€785 million), our product rights to Nebido™ (€467 million), and our lormetazepam-based products (€210 million).

Income from the reversal of unutilized provisions included an amount of €181 million from the reversal of unutilized provisions for the dicamba litigations.

Miscellaneous operating income included €195 million in insurance compensation for Hurricane Ida from property and business interruption insurance, and €154 million in insurance compensation in connection with glyphosate litigations. Additionally, in the Pharmaceuticals segment, changes in the fair value of a liability for contingent consideration led to a gain of €112 million, with a further gain of €72 million in that segment due to the sale of our in-house developed product Nimotop™.

8. Other operating expenses

Other operating expenses were comprised as follows:

B 8/1

Other Operating Expenses

€ million	2022	2023
Losses on retirements of noncurrent assets	(54)	(46)
Impairment losses on receivables	(125)	(169)
Expenses for significant litigations	(791)	(889)
Losses from derivatives	(643)	(282)
Cost of goods sold for products acquired through barter transactions	(343)	(214)
Impairment losses on goodwill	(734)	(6,690)
Miscellaneous operating expenses	(711)	(577)
Total	**(3,401)**	**(8,867)**

Expenses for significant litigations amounted to €889 million (2022: €791 million) and were mainly attributable to the allocation to provisions for litigations surrounding polychlorinated biphenyls (PCBs) and glyphosate. All of these expenses were reported as special items in segment reporting.

Miscellaneous operating expenses included an amount totaling €73 million for non-provision-related legal costs, and expenses of €54 million in connection with the sale of our Environmental Science Professional business and of our product rights to the men's product Nebido™. Donations to charitable activities totaled €56 million (all segments). The remaining amount comprised a number of individually immaterial items at the subsidiaries.

For information on the legal risks and the provisions established for this purpose, see Notes [30] and [23].

Miscellaneous operating expenses also included expense of €15 million (2022: income of €77 million) as a result of the ongoing hyperinflation of nonmonetary assets and liabilities as well as equity in Argentina and Turkey.

9. Personnel expenses and employee numbers

Personnel expenses decreased by €1,928 million in 2023 to €10,691 million (2022: €12,619 million). The decline was mainly attributable to lower provisions for variable compensation under the Group-wide short-term incentive (STI) program.

B 9/1

Personnel Expenses

€ million	2022	2023
Salaries	10,241	8,532
Social expenses and expenses for pensions and other benefits	2,378	2,159
of which for defined contribution pension plans	565	557
of which for defined benefit and other pension plans	434	222
Total	**12,619**	**10,691**

The interest portion of the allocation to personnel-related provisions – mainly for pensions and other post-employment benefits – is included in the financial result under other financial expenses (Note [10.3]).

The average numbers of employees, classified by functional area, were as shown in the table below:

B 9/2

Employees

	2022	2023
Production	41,503	42,727
Marketing and distribution	35,357	33,323
Research and development	16,035	16,789
General administration	8,191	8,359
Total	**101,086**	**101,198**
Apprentices	1,216	1,197

The number of employees on either permanent or temporary contracts is stated in full-time equivalents (FTEs), with part-time employees included on a prorated basis in line with their contractual working hours. The total number of employees on the closing date was 99,723 (2022: 101,369).

10. Financial result

The financial result for 2023 was minus €2,233 million (2022: minus €2,342 million), comprising an equity-method loss of €162 million (2022: €150 million), financial expenses of €2,672 million (2022: €2,642 million) and financial income of €601 million (2022: €450 million). Details of the components of the financial result are provided in the following sections.

10.1 Income (loss) from investments in affiliated companies

The net income (loss) from investments in affiliated companies was comprised as follows:

B 10.1/1

Income (Loss) from Investments in Affiliated Companies

€ million	2022	2023
Net income (loss) from investments accounted for using the equity method (equity-method income/loss)	(150)	(162)
Expenses		
Losses from changes in fair values of investments in affiliated companies	(151)	(21)
Income		
Gains from changes in fair values of investments in affiliated companies	–	1
Miscellaneous income from investments in affiliated companies	1	9
Total	**(300)**	**(173)**

Income from investments accounted for using the equity method included expenses of €153 million (2022: €148 million) from “Leaps by Bayer” investments. Further details of the companies accounted for using the equity method are given in Note [16].

Losses from changes in the fair values of investments in affiliated companies amounted to €21 million (2022: €124 million) and pertained to the measurement of Century Therapeutics, Inc., United States. The prior-year figure had also included losses of €25 million relating to the measurement of Pyxis Oncology, Inc., United States.

Miscellaneous income from investments in affiliated companies primarily contained the dividend payment totaling €8 million from our interest in KaNDy Therapeutics Limited, United Kingdom.

10.2 Net interest expense

The net interest expense was comprised as follows:

B 10.2/1

Net Interest Expense

€ million	2022	2023
Interest and similar expenses	**(1,437)**	**(1,618)**
of which interest expense relating to nonfinancial liabilities	(178)	(38)
Interest and similar income	**379**	**484**
of which interest income relating to nonfinancial assets	114	55
Total	**(1,058)**	**(1,134)**

10.3 Other financial income and expenses

Other financial income and expenses were comprised as follows:

B 10.3/1

Other Financial Income and Expenses

€ million	2022	2023
Expenses		
Interest portion of discounted provisions[1]	(420)	(429)
Exchange gain (loss)	(219)	(449)
Miscellaneous financial expenses	(415)	(155)
Income		
Miscellaneous financial income	70	107
Total	**(984)**	**(926)**

[1] Also including effects from the remeasurement of corresponding overfunding

The interest portion of discounted provisions comprised €144 million (2022: €81 million) in net interest expense for pension and other post-employment benefit provisions and minus €285 million (2022: minus €339 million) in effects from the unwinding of the discount and interest-rate fluctuations for other personnel-related provisions, effects from the remeasurement of corresponding overfunding, and effects from the unwinding of the discount for other provisions. The interest expense for pension and other post-employment benefit provisions included €816 million (2022: €426 million) for the unwinding of the discount on the present value of the defined benefit obligation and €672 million (2022: €345 million) in interest income from plan assets.

The miscellaneous financial expenses included €35 million (2022: €281 million) in negative changes in the fair value of financial investments in debt instruments (such as money market funds in foreign currency and mixed funds) as well as €90 million (2022: €95 million) in expenses from the payment of intra-Group invoices between Argentina and the United States or Germany.

The miscellaneous financial income included gains of €55 million (2022: €10 million) arising from positive changes in the fair value of financial investments in debt instruments and a gain of €31 million from the early repayment of two hybrid bonds, as well as gains of €5 million (2022: €20 million) arising from positive changes in the fair value of obligations for contingent consideration and liabilities to purchase noncontrolling interests.

11. Taxes

The breakdown of tax expenses by origin was as follows:

B 11/1

Tax Expense by Origin

€ million	2022	2022 Of which income taxes	2023	2023 Of which income taxes
Taxes paid or accrued				
Current income taxes				
Germany	(912)	(912)	(359)	(359)
Other countries	(1,659)	(1,659)	(884)	(884)
Other taxes				
Germany	(56)	–	(60)	–
Other countries	(175)	–	(158)	–
	(2,802)	**(2,571)**	**(1,461)**	**(1,243)**
Deferred taxes				
from temporary differences	1,703	1,703	91	91
from tax loss and interest carryforwards and tax credits	364	364	(169)	(169)
	2,067	**2,067**	**(78)**	**(78)**
Total	**(735)**	**(504)**	**(1,539)**	**(1,321)**

Other taxes mainly included land, vehicle and other indirect taxes and are included in the respective operating expense items.

The deferred tax assets and liabilities were allocable to the following items in the statements of financial position:

B 11/2

Deferred Tax Assets and Liabilities

€ million	Dec. 31, 2022 Deferred tax assets	Dec. 31, 2022 Deferred tax liabilities	Dec. 31, 2023 Deferred tax assets	Dec. 31, 2023 Deferred tax liabilities
Intangible assets	1,405	4,006	1,353	4,201
Property, plant and equipment	596	683	939	489
Financial assets	65	158	334	426
Inventories	2,023	540	2,608	1,080
Receivables	311	504	347	224
Other assets	4	41	3	41
Provisions for pensions and other post-employment benefits	1,493	458	1,280	480
Other provisions	2,212	53	2,526	607
Liabilities	1,950	291	1,818	327
Tax loss and interest carryforwards	524	–	713	–
Tax credits	1,029	–	635	–
	11,612	**6,734**	**12,556**	**7,875**
Set-off	(6,007)	(6,007)	(7,085)	(7,085)
Total	**5,605**	**727**	**5,471**	**790**

The net asset surplus arising from deferred tax receivables and liabilities declined year on year by €197 million. Of this amount, €78 million was recognized as deferred tax expense in the income statement and €119 million mainly as a reduction in other comprehensive income and as expenses relating to ongoing hyperinflation. The change in other comprehensive income mainly relates to the remeasurement of the net defined benefit liability for post-employment benefit plans.

The use of tax loss carryforwards reduced current income taxes in 2023 by €20 million (2022: €422 million). The use of tax credits reduced current income taxes by €50 million (2022: €283 million).

Of the total tax loss and interest carryforwards of €18,511 million, including interest carryforwards of €1,978 million (2022: €15,924 million, including interest carryforwards of €1,037 million), an amount of €5,080 million, including interest carryforwards of €44 million (2022: €3,727 million, including interest carryforwards of €81 million) is expected to be usable within a reasonable period.

Deferred tax assets of €713 million (2022: €524 million) were recognized for the amount of tax loss and interest carryforwards expected to be usable. The use of €13,431 million of tax loss and interest carryforwards, including interest carryforwards of €1,934 million (2022: €12,196 million, including interest carryforwards of €956 million) was subject to legal or economic restrictions. Consequently, no deferred tax assets were recognized for this amount. The addition of usable tax loss and interest carryforwards mainly resulted from the measurement of loss carryforwards in the United States at the state level. If these tax loss and interest carryforwards had been fully usable, deferred tax assets of €1,410 million (2022: €1,115 million) would additionally have been recognized.

Tax credits of €635 million (2022: €1,029 million) were recognized as deferred tax assets in 2023. The use of €878 million (2022: €165 million) of tax credits was subject to legal or economic restrictions. Consequently, no deferred tax assets were recognized for this amount.

B 11/3

Expiration of Unusable Tax Credits and of Tax Loss and Interest Carryforwards

	Tax credits		Tax loss and interest carryforwards	
€ million	**Dec. 31, 2022**	**Dec. 31, 2023**	**Dec. 31, 2022**	**Dec. 31, 2023**
Within one year	1	–	8	48
Within two years to five years	9	–	276	121
Thereafter	155	878	11,911	13,262
Total	**165**	**878**	**12,195**	**13,431**

The use of €1,045 million (2022: €3,513 million) of deductible temporary differences was subject to legal or economic restrictions. Consequently, no deferred tax assets were recognized for this amount. The decline is mainly due to a remeasurement of the deductible temporary differences in connection with the settlement agreements in the United States. If these temporary differences had been fully usable, deferred tax assets of €256 million (2022: €857 million) would have been recognized.

In 2023, subsidiaries that reported losses for 2023 or 2022 recognized net deferred tax assets totaling €1,922 million (2022: €2,720 million) from temporary differences, tax credits, and tax loss and interest carryforwards. These assets were considered to be unimpaired because the companies concerned were expected to generate taxable income in the future or sufficiently taxable temporary differences.

Deferred tax liabilities of €106 million were recognized in 2023 (2022: €92 million) for planned dividend payments by subsidiaries. Deferred tax liabilities were not recognized for differences on €14,612 million (2022: €23,838 million) of retained earnings of subsidiaries because these earnings are to be reinvested for an indefinite period.

The reconciliation of expected to actual income tax income or expense (2023: minus €1,877 million; 2022: €558 million) and of the expected to the effective tax rate for the Group was as follows:

B 11/4

Reconciliation of Expected to Actual Income Tax Income or Expense

	2022		2023	
	€ million	%	€ million	%
Expected income tax (income) and expense[1] and expected tax rate	**1,062**	**22.8**	**(556)**	**34.3**
Tax reduction from tax-free income	(252)	(5.4)	(113)	7.0
Tax reductions from recognition of previously unrecognized deferred tax assets on tax loss and interest carryforwards, and from utilization of carryforwards without previously recognized deferred tax assets	(1,411)	(30.2)	(28)	1.7
Increase in taxes due to non-tax-deductible expenses related to the operating business	159	3.4	351	(21.7)
Tax expense for expected unrecoverable temporary differences, tax loss and interest carryforwards	197	4.2	495	(30.5)
Tax (income) and expenses relating to other periods	(108)	(2.3)	11	(0.7)
Tax effects of changes in tax rates	(119)	(2.6)	(153)	9.4
Other tax effects	976	20.9	1,314	(81.1)
Actual income tax (income) and expense and effective tax rate	**504**	**10.8**	**1,321**	**(81.5)**

[1] Expected income tax (income) and expense is calculated by applying an expected weighted average tax rate to the pre-tax income of the Group. This average rate was determined on the basis of expected tax rates for the individual Group companies.

The reduction in the expected tax expense year on year was largely due to the fact that tax income is expected due to the pre-tax loss and that the weighted, expected tax rate for countries with income led to additional tax relief and a higher expected tax rate.

The increase in taxes due to non-tax-deductible expenses related to the operating business amounted to €351 million and was mainly the result of payments in connection with the settlement agreements reached in the United States as well as due to the increase in trade-tax additions and non-tax-deductible operating expenses in connection with dividends in Germany.

Tax expense for expected unrecoverable temporary differences, tax loss and interest carryforwards of €495 million primarily pertained to an impairment loss for previously recognized deferred tax assets arising from temporary differences, tax credits, and loss and interest carryforwards in connection with the settlement agreements in the United States.

The €1,314 million in tax expenses from other tax effects primarily comprised effects of €1,671 million due to non-tax-deductible impairment losses on goodwill. This line item also included tax benefits from the utilization and initial allocation of tax credits, from an extended deduction of charitable donations and tax-deductible indirect taxes, as well as tax expenses from tax provisions established for controlled foreign corporation taxation.

The Bayer Group falls within the scope of the global minimum taxation rules ("Pillar Two"), which entered into force in Germany on December 28, 2023, in the form of the Minimum Tax Act (MinStG). As the Minimum Tax Act applies for the first time for fiscal years beginning after December 30, 2023, there was no minimum tax exposure for the fiscal year 2023. The implementation of the global minimum tax rules into domestic legislation in other jurisdictions also did not result in any minimum tax being levied in 2023. Under the Minimum Tax Act, the Bayer Group must pay a top-up tax for each jurisdiction in which the effective tax rate is below 15%. During the transitional period from 2024 until 2026, the top-up tax can, upon request, be deemed to be zero for a jurisdiction where the requirements of the Country-by-Country

Reporting Safe Harbour rules are met. Bayer will exercise this option, which, based on the 2023 fiscal year, would lead to the company being exempt from minimum taxation in 83% of jurisdictions.

Given the complexity of the minimum taxation rules, the still pending implementation into domestic legislation in many jurisdictions, and the Bayer Group's business performance in the next years, it is not yet possible to reliably assess the quantitative effects arising from the global implementation of the minimum taxation rules for 2024. The top-up tax is expected to be in the double-digit millions and thus not material for the Bayer Group compared with the tax expense of €1,321 million in 2023. In order to preliminarily identify jurisdictions with an effective tax rate below 15%, the reported IFRS earnings before taxes and consolidation effects were adjusted for dividend income and goodwill impairments attributable to acquisitions of enterprises. Jurisdictions in which a pre-tax loss was reported after these adjustments were not included in the identification process. If the Pillar Two rules had already been applicable in the 2023 reporting period, Switzerland, Cyprus and Brazil in particular would have contributed to a top-up tax.

12. Income / losses attributable to noncontrolling interest

Income attributable to noncontrolling interest amounted to €6 million (2022: €19 million). Losses attributable to noncontrolling interest amounted to €7 million (2022: €3 million). The income and losses primarily pertained to Bayer LLC Saudia Arabia, Saudi Arabia (income of €3 million, 2022: loss of €1 million), Rede Agro Fidelidade e Intermediacao S.A., Brazil (income of €3 million, 2022: income of €2 million), and Bayer CropScience Limited, India (loss of €5 million, 2022: income of €18 million).

13. Earnings per share

Earnings per share are determined according to IAS 33 (Earnings Per Share) by dividing the net income for the period attributable to Bayer AG stockholders by the weighted average number of outstanding shares. As no dilutive financial instruments were in circulation at the end of the 2022 and 2023 reporting periods, diluted earnings per share were equivalent to basic earnings per share.

B 13/1

Earnings per Share

	€ million		Earnings per share (€)	
	2022	2023	2022	2023
Income after income taxes (attributable to Bayer AG stockholders)	**4,150**	**(2,941)**	**4.22**	**(2.99)**
of which income after income taxes from continuing operations (attributable to Bayer AG stockholders)	4,150	(2,941)	4.22	(2.99)
Weighted average number of outstanding shares (million)	**982.42**	**982.42**	**–**	**–**

Notes to the Statements of Financial Position

14. Goodwill and other intangible assets

Changes in intangible assets in 2023 were as follows:

B 14/1

Changes in Intangible Assets

€ million	Acquired goodwill	Patents and technol-ogies	Trade-marks	Marketing and distribution rights	Production rights	R&D projects	Other rights and advance payments	Total
Cost of acquisition or generation, December 31, 2022	**44,374**	**33,167**	**13,766**	**3,778**	**1,656**	**5,454**	**4,172**	**106,367**
Acquisitions	68	10	–	–	–	–	–	78
Capital expenditures	–	110	–	57	13	90	582	852
Retirements	–	(114)	(65)	(33)	–	(2)	(93)	(307)
Transfers	–	495	–	8	1	(495)	(9)	–
Transfers (IFRS 5)	–	–	–	–	–	–	–	–
Divestments/changes in scope of consolidation	6	–	–	(2)	–	–	(3)	1
Inflation adjustment (IAS 29)	41	11	–	3	–	–	17	72
Exchange differences	(1,033)	(744)	(293)	(50)	(2)	(130)	(89)	(2,341)
December 31, 2023	**43,456**	**32,935**	**13,408**	**3,761**	**1,668**	**4,917**	**4,577**	**104,722**
Accumulated amortization and impairment, December 31, 2022	**4,726**	**22,029**	**7,574**	**2,377**	**1,647**	**1,690**	**2,493**	**42,536**
Retirements	–	(98)	(37)	(33)	–	–	(86)	(254)
Amortization and impairment losses	6,690	2,393	539	161	2	259	410	10,454
Amortization	–	1,406	371	136	2	–	401	2,316
Impairment losses	6,690	987	168	25	–	259	9	8,138
Impairment loss reversals	–	(1,823)	(462)	(64)	–	(387)	–	(2,736)
Transfers	–	154	–	–	–	(154)	–	–
Transfers (IFRS 5)	–	–	–	–	–	–	–	–
Divestments/changes in scope of consolidation	–	–	–	(2)	–	–	(1)	(3)
Inflation adjustment (IAS 29)	8	11	–	3	–	–	16	38
Exchange differences	(267)	(427)	(149)	(41)	(1)	(32)	(58)	(975)
December 31, 2023	**11,157**	**22,239**	**7,465**	**2,401**	**1,648**	**1,376**	**2,774**	**49,060**
Carrying amounts, December 31, 2023	**32,299**	**10,696**	**5,943**	**1,360**	**20**	**3,541**	**1,803**	**55,662**
Carrying amounts, December 31, 2022	**39,648**	**11,138**	**6,192**	**1,401**	**9**	**3,764**	**1,679**	**63,831**

The amortization of intangible assets is allocated to the individual functional costs on the basis of the economic substance of the underlying asset. The amortization of trademarks and of marketing and distribution rights is generally reflected in selling expenses, and the amortization of production rights in the cost of goods sold. The amortization of patents and technologies is mainly included in the cost of goods sold or in research and development expenses. Acquired goodwill, research and development projects, and advance payments made are not subject to amortization.

Unscheduled impairment testing was conducted in the first quarter of 2023 for the Crop Science segment's cash-generating unit glyphosate after a weak start to 2023 led to revised full-year expectations, mainly due to significantly reduced market price expectations for glyphosate. In addition, lower expectations for volumes also had an impact. Impairment testing gave rise to impairment losses of approximately €278 million, attributable entirely to property, plant and equipment. The impairment losses were allocated to the cost of goods sold, with the respective figures determined on the basis of fair value less costs of disposal while applying an after-tax cost of capital rate of 11.5%.

Impairment testing was conducted in the second quarter of 2023 in the Crop Science segment due to a further deterioration in business prospects and updated long-term corporate planning.

In the Pharmaceuticals and Consumer Health segments, updated long-term corporate planning did not necessitate impairment testing.

The unscheduled impairment testing in the Crop Science segment resulted in net impairment losses on intangible assets totaling €2,020 million. An impairment loss of €2,436 million was recognized on goodwill due to deteriorating business prospects overall, largely driven by significantly lower price expectations for glyphosate.

The impairment testing resulted in the recognition of impairment loss reversals in the cash-generating units Soybean Seed & Traits (€1,253 million, comprising €140 million on research and development projects, €971 million on patents and technologies, €114 million on trademarks and €28 million on marketing and distribution rights) and Vegetable Seeds (€134 million, comprising €37 million on research and development projects, €81 million on patents and technologies, €13 million on trademarks and €3 million on marketing and distribution rights). The impairment loss reversal for Soybean Seed & Traits was largely due to reduced expectations for the cost of goods sold as a result of lower commodity prices. The impairment loss reversal for Vegetable Seeds was due to improved business prospects as a result of increased market penetration and growing market share in Asia.

In contrast, impairment losses were recognized in the cash-generating units Corn Seed & Traits (€579 million, comprising €99 million on research and development projects, €376 million on patents and technologies, €89 million on trademarks and €15 million on marketing and distribution rights), Cotton Seed (€392 million, comprising €22 million on research and development projects, €330 million on patents and technologies, and €40 million on trademarks), and glyphosate (€277 million, comprising €277 million on property, plant and equipment). The impairment loss at Corn Seed & Traits was mainly driven by the anticipated long-term normalization of commodity prices. The impairment loss for Cotton Seed was primarily attributable to persistent competitive pressure. The impairment loss for glyphosate was mainly due to significant further declines in market price expectations. In addition, further reductions in expectations with regard to volumes also had an impact.

The impairment losses on goodwill were recognized in other operating expenses. The impairment losses and impairment loss reversals on the assets of the cash-generating units were allocated to the cost of goods sold, selling expenses, and research and development expenses. The impairment losses and impairment loss reversals reflected the difference between the respective carrying amounts and their fair value less costs of disposal.

Impairment testing was conducted in the third quarter of 2023 due to interest-rate developments at that time and their related impact on the weighted average cost of capital.

The impairment testing did not give rise to any material impairment losses or impairment loss reversals in the Pharmaceuticals and Consumer Health segments.

Within the Crop Science segment, it resulted in the recognition of net impairment losses of €3,951 million on intangible assets, of which €3,621 million on goodwill, in the third quarter of 2023. In addition, there were impairment losses in the cash-generating unit Soybean Seed & Traits (€330 million, comprising €38 million on research and development projects, €255 million on patents and technologies, €30 million on trademarks and €7 million on marketing and distribution rights). The impairment losses on goodwill were recognized in other operating expenses and those on the assets of the cash-generating units were allocated to the cost of goods sold, selling expenses, and research and development expenses. The impairment losses were primarily attributable to an increase in the weighted average cost of capital and reflected the difference between the respective carrying amounts and their fair value less costs of disposal.

Our regular annual impairment testing in the fourth quarter of 2023 resulted in the recognition of net impairment loss reversals of €562 million on intangible assets in the Crop Science segment. This included €633 million in impairment losses on goodwill, which were primarily the result of a deterioration in business prospects, particularly in the area of crop protection, and an inflation-driven increase in costs. This effect was offset by a decrease in the weighted average cost of capital compared to the third quarter of 2023.

Impairment loss reversals arose at the cash-generating units Corn Seed & Traits (€1,130 million, comprising €202 million on research and development projects, €721 million on patents and technologies, €176 million on trademarks and €31 million on marketing and distribution rights) and Soybean Seed & Traits (€65 million, comprising €8 million on research and development projects, €50 million on patents and technologies, €6 million on trademarks and €1 million on marketing and distribution rights). These impairment loss reversals were mainly attributable to a decrease in the weighted average cost of capital compared to the third quarter of 2023.

The impairment losses on goodwill were recognized in other operating expenses. The impairment losses and loss reversals on the assets of the cash-generating units were included in the cost of goods sold, selling costs, and research and development expenses. The impairment losses and impairment loss reversals reflected the difference between the respective carrying amounts and their fair value less costs of disposal.

The table below indicates the capital cost factors used in the impairment testing on the cash-generating units of the Crop Science segment in the fourth quarter of 2022, and the second, third and fourth quarters of 2023.

B 14/2

Impairment Testing Parameters

	After-tax cost of capital			
%	Q4 2022	Q2 2023	Q3 2023	Q4 2023
Corn Seed & Traits	10.5	10.6	11.3	10.3
Soybean Seed & Traits	9.9	10.0	10.9	9.9
Glyphosate	11.5	11.3	13.2	11.7
Dicamba	7.7	7.7	8.5	7.6
Cotton Seed	7.6	7.8	8.5	7.8
Canola	8.3	8.2	8.9	7.8
Vegetable Seeds	9.9	10.2	11.6	11.4

Our regular annual impairment testing in the fourth quarter gave rise to impairment losses of €54 million in the Pharmaceuticals segment, particularly due to extended development cycles in ongoing projects (comprising €26 million on patents, €18 million on research and development projects, and €10 million on trademarks). In addition, impairment losses of €76 million were recognized in 2023 – on top of those recorded in the fourth quarter – due to the ongoing evaluation of individual research and development projects during the year. The impairment losses were allocated to selling expenses, and research and development expenses.

In the Consumer Health segment, regular annual impairment testing resulted in impairment loss reversals totaling €153 million on trademarks, of which €116 million pertained to the Claritin™ (allergy business) and €37 million to Afrin™ (cough and cold business). These were mainly the result of a decrease in the weighted average cost of capital compared to the third quarter of 2023. The weighted average cost of capital in the fourth quarter of 2023 was 6.2% (Q3 2023: 6.7%) for Claritin™ and 6.6% (Q3 2023: 7.2%) for Afrin™. The impairment losses were recognized in the selling expenses.

Changes in intangible assets in 2022 were as follows:

B 14/3

Changes in Intangible Assets (Previous Year)

€ million	Acquired goodwill	Patents and technol-ogies	Trade-marks	Marketing and distribution rights	Production rights	R&D projects	Other rights and advance payments	Total
Cost of acquisition or generation, December 31, 2021	**44,028**	**31,649**	**13,362**	**3,661**	**1,728**	**5,530**	**3,611**	**103,569**
Acquisitions	11	–	–	–	–	–	–	11
Capital expenditures	–	69	–	44	2	150	578	843
Retirements	–	(202)	(40)	(10)	(2)	(5)	(84)	(343)
Transfers	–	430	–	13	–	(440)	(3)	–
Transfers (IFRS 5)	(1,589)	–	(4)	(14)	(70)	–	(8)	(1,685)
Divestments/changes in scope of consolidation	–	–	–	(4)	–	–	–	(4)
Inflation adjustment (IAS 29)	37	21	–	2	–	(14)	15	61
Exchange differences	1,887	1,200	448	86	(2)	233	63	3,915
December 31, 2022	**44,374**	**33,167**	**13,766**	**3,778**	**1,656**	**5,454**	**4,172**	**106,367**
Accumulated amortization and impairment, December 31, 2021	**3,922**	**19,223**	**6,874**	**2,155**	**1,689**	**1,230**	**2,112**	**37,205**
Retirements	–	(187)	(24)	(10)	(2)	(5)	(67)	(295)
Amortization and impairment losses	734	3,831	816	213	4	832	406	6,836
Amortization	–	1,470	391	142	4	–	397	2,404
Impairment losses	734	2,361	425	71	–	832	9	4,432
Impairment loss reversals	–	(1,493)	(275)	(33)	–	(299)	–	(2,100)
Transfers	–	119	–	–	–	(119)	–	–
Transfers (IFRS 5)	(93)	–	(2)	(10)	(42)	–	(5)	(152)
Divestments/changes in scope of consolidation	–	–	–	(3)	–	–	–	(3)
Inflation adjustment (IAS 29)	4	7	–	2	–	–	13	26
Exchange differences	159	529	185	63	(2)	51	34	1,019
December 31, 2022	**4,726**	**22,029**	**7,574**	**2,377**	**1,647**	**1,690**	**2,493**	**42,536**
Carrying amounts, December 31, 2022	**39,648**	**11,138**	**6,192**	**1,401**	**9**	**3,764**	**1,679**	**63,831**
Carrying amounts, December 31, 2021	**40,106**	**12,426**	**6,488**	**1,506**	**39**	**4,300**	**1,499**	**66,364**

The long-term growth rates and cost of capital factors used in the impairment testing of goodwill in the fourth quarter of 2022, third quarter of 2023 and fourth quarter of 2023 are shown in the following table. A long-term growth rate of 2% and an after-tax cost of capital of 10.1% were applied in the testing of goodwill for impairment in the Crop Science segment in the second quarter of 2023.

B 14/4

Impairment Testing Parameters

	Growth rate			After-tax cost of capital		
%	Q4 2022	Q3 2023	Q4 2023	Q4 2022	Q3 2023	Q4 2023
Crop Science	2.0	2.0	2.0	10.0	11.0	10.0
Pharmaceuticals	0.0	0.0	0.0	5.6	6.1	6.5
Consumer Health	1.0	1.0	1.0	8.2	9.1	8.6

Testing goodwill for impairment involves calculating the fair value less costs to sell. Impairment losses of €734 million were recognized on goodwill in the Crop Science segment in 2022.

A sensitivity analysis undertaken for the impairment testing of goodwill in the Pharmaceuticals and Consumer Health segments at year-end was based on a 10% reduction in future cash flows, a 10% increase in the weighted average cost of capital or a one-percentage-point reduction in the long-term growth rate. As in the prior year, the sensitivity analysis showed that no impairment loss would need to be recognized for the Pharmaceuticals and Consumer Health segments in the event of a 10% reduction in future cash flows, a 10% increase in the weighted average cost of capital, or a one-percentage-point reduction in the long-term growth rate. At the Crop Science segment, a 10% reduction in future cash flows would lead to an impairment loss of approximately €3.9 billion, a 10% increase in the weighted average cost of capital to an impairment loss of approximately €4.3 billion, and a one-percentage-point reduction in the long-term growth rate to an impairment loss of approximately €3.3 billion, each of which would have led to an additional impairment loss on goodwill. The prior-year analysis showed that it would have been necessary to recognize impairment losses of approximately €4.6 billion if future cash flows decreased by 10%, of approximately €5.1 billion if the weighted average cost of capital increased by 10%, and of approximately €4.2 billion if the long-term growth rate decreased by one percentage point.

The following table shows the sensitivities of the cash-generating units of the Crop Science segment in relation to a 10% increase in the weighted average cost of capital and a 10% reduction in future cash flows:

B 14/5

Sensitivities of the Cash-Generating Units

€ million	WACC +10%	Cash flows –10%
Corn Seed & Traits	(681)	(1,433)
Soybean Seed & Traits	(133)	(316)
Cotton Seed	(30)	(99)
Canola	(16)	(44)
Vegetable Seeds	(90)	(155)

The levels at which impairment testing is performed are explained in Note [3].

Goodwill and unamortized intangible assets that are of material significance for the Bayer Group are allocated to the following segments:

B 14/6

Intangible Assets with an Indefinite Useful Life

	Goodwill (€ million)		Material intangible assets with an indefinite useful life (€ million)	
Reporting segment	**2022**	**2023**	**2022**	**2023**
Crop Science	23,623	16,553	2,758	2,569
Pharmaceuticals	11,670	11,548	1,001	965
Consumer Health	4,278	4,198	5	7

Research and development projects not yet available for use were included in unamortized intangible assets at a total amount of €3,541 million as of the end of 2023 (2022: €3,764 million). In the case of research and development projects, the point in time from which a capitalized asset can be expected to generate an economic benefit for the company cannot be determined. Such assets are therefore classified as having an indefinite useful life and are subjected to annual impairment testing.

Another unamortized intangible asset is the Bayer Cross, which was reacquired for the North America region in 1994, having been awarded to the United States and Canada under the reparations agreements at the end of the First World War. The period for which the Bayer Group will derive an economic benefit from this name cannot be determined as Bayer intends to make continuous use of it. The Bayer Cross is capitalized at €108 million (2022: €108 million).

15. Property, plant and equipment

Changes in property, plant and equipment in 2023 were as follows:

B 15/1

Changes in Property, Plant and Equipment

€ million	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
Cost of acquisition or construction, December 31, 2022	**10,478**	**11,984**	**2,601**	**3,274**	**28,337**
Acquisitions	1	–	–	–	1
Capital expenditures	455	325	304	1,394	2,478
Retirements	(344)	(251)	(256)	(9)	(860)
Transfers	491	793	130	(1,414)	–
Transfers (IFRS 5)	(125)	(17)	(3)	–	(145)
Divestments/changes in the scope of consolidation	6	(7)	(3)	–	(4)
Inflation adjustment (IAS 29)	176	174	40	31	421
Exchange differences	(399)	(380)	(88)	(104)	(971)
December 31, 2023	**10,739**	**12,621**	**2,725**	**3,172**	**29,257**
Accumulated depreciation and impairment, December 31, 2022	**4,704**	**8,070**	**1,844**	**45**	**14,663**
Retirements	(218)	(231)	(225)	(1)	(675)
Depreciation and impairment losses	707	953	346	329	2,335
Depreciation	538	775	304	–	1,617
Impairment losses	169	178	42	329	718
Impairment loss reversals	(4)	(3)	(2)	–	(9)
Transfers	2	26	1	(29)	–
Transfers (IFRS 5)	(81)	(13)	(2)	–	(96)
Divestments/changes in the scope of consolidation	6	(3)	(2)	–	1
Inflation adjustment (IAS 29)	79	133	31	–	243
Exchange differences	(175)	(279)	(63)	(9)	(526)
December 31, 2023	**5,020**	**8,653**	**1,928**	**335**	**15,936**
Carrying amounts, December 31, 2023	**5,719**	**3,968**	**797**	**2,837**	**13,321**
Carrying amounts, December 31, 2022	**5,774**	**3,914**	**757**	**3,229**	**13,674**

Impairment losses on property, plant and equipment amounted to €718 million (2022: €231 million) and primarily comprised an amount of €562 million resulting from the impairment testing of the glyphosate cash-generating unit within the Crop Science segment.

In 2023, borrowing costs of €53 million (2022: €38 million) were capitalized as components of the cost of acquisition or construction of qualifying assets, applying an average interest rate of 3.1% (2022: 2.6%).

Right-of-use assets totaling €1,155 million (2022: €1,225 million) held under leases were capitalized in property, plant and equipment. Further information on leases is given in Note [28].

Changes in property, plant and equipment in 2022 were as follows:

B 15/2

Changes in Property, Plant and Equipment (Previous Year)

€ million	Land and buildings	Plant installations and machinery	Furniture, fixtures and other equipment	Construction in progress and advance payments	Total
Cost of acquisition or construction, December 31, 2021	**9,827**	**10,752**	**2,483**	**3,126**	**26,188**
Acquisitions	–	–	–	–	–
Capital expenditures	551	297	256	1,693	2,797
Retirements	(365)	(482)	(210)	(43)	(1,100)
Transfers	343	1,244	35	(1,622)	–
Transfers (IFRS 5)	(128)	(88)	(26)	4	(238)
Divestments/changes in the scope of consolidation	–	(3)	1	–	(2)
Inflation adjustment (IAS 29)	115	108	18	18	259
Exchange differences	135	156	44	98	433
December 31, 2022	**10,478**	**11,984**	**2,601**	**3,274**	**28,337**
Accumulated depreciation and impairment, December 31, 2021	**4,376**	**6,751**	**1,711**	**662**	**13,500**
Retirements	(256)	(387)	(182)	(34)	(859)
Depreciation and impairment losses	548	954	313	7	1,822
Depreciation	523	759	309	–	1,591
Impairment losses	25	195	4	7	231
Impairment loss reversals	(8)	–	(1)	–	(9)
Transfers	4	650	(19)	(635)	–
Transfers (IFRS 5)	(44)	(46)	(14)	–	(104)
Divestments/changes in the scope of consolidation	–	1	–	–	1
Inflation adjustment (IAS 29)	51	80	12	–	143
Exchange differences	33	67	24	45	169
December 31, 2022	**4,704**	**8,070**	**1,844**	**45**	**14,663**
Carrying amounts, December 31, 2022	**5,774**	**3,914**	**757**	**3,229**	**13,674**
Carrying amounts, December 31, 2021	**5,451**	**4,001**	**772**	**2,464**	**12,688**

Investment property

The total carrying amount of investment property as of December 31, 2023, was €107 million (December 31, 2022: €124 million). The fair value of this property was €629 million (2022: €669 million). The rental income from investment property was €20 million (2022: €22 million), and the operating expenses directly allocable to this property amounted to €2 million (2022: €2 million).

16. Investments accounted for using the equity method

Some 42 (2022: 43) associates and four (2022: five) joint ventures were accounted for in the consolidated financial statements using the equity method. A list of these companies is available at www.bayer.com/shareownership2023.

The following table contains a summary of the aggregated income statement data and aggregated carrying amounts of the associates and joint ventures accounted for using the equity method:

B 16/1

Earnings Data and Carrying Amounts of Companies Accounted for Using the Equity Method

	Associates		Joint ventures	
€ million	**2022**	**2023**	**2022**	**2023**
Income after income taxes	(586)	(832)	(62)	(14)
Other comprehensive income after income taxes	16	–	–	–
Total comprehensive income after income taxes	(570)	(832)	(62)	(14)
Share of income after income taxes[1]	**(117)**	**(155)**	**(33)**	**(7)**
Share of total comprehensive income after income taxes	(104)	(155)	(33)	(7)
Carrying amount as of December 31	**826**	**791**	**67**	**59**

[1] Also including gains from remeasurement of investments accounted for using the equity method due to the loss of significant influence and the fact that they then ceased being accounted for using the equity method

17. Other financial assets

The other financial assets were comprised as follows:

B 17/1

Other Financial Assets

	Dec. 31, 2022		**Dec. 31, 2023**	
€ million	**Total**	**Of which current**	**Total**	**Of which current**
AC[1]	230	32	919	755
FVTPL[1]	6,359	4,950	5,647	3,925
of which debt instruments	6,295	4,947	5,604	3,925
of which equity instruments	64	3	43	–
FVTOCI[1]	395	–	324	–
of which equity instruments (no recycling)	395	–	324	–
Receivables from derivatives	244	221	185	151
Receivables under lease agreements	29	5	28	5
Total	**7,257**	**5,208**	**7,103**	**4,836**

[1] Measurement categories in accordance with IFRS 9
AC: at amortized cost
FVTOCI: at fair value through other comprehensive income
FVTPL: at fair value through profit or loss

The AC category included €735 million (2022: €14 million) in bank deposits as well as interest-bearing securities of €128 million (2022: €129 million). No material impairment losses were recognized for expected credit losses in 2023 or 2022.

The debt instruments in the FVTPL category included investments in money market funds totaling €3,827 million (2022: €4,594 million) as well as capital of €1,140 million (2022: €1,102 million) provided to Bayer-Pensionskasse VVaG (Bayer-Pensionskasse) for its effective initial fund, and jouissance right capital (Genussrechtskapital) of €150 million (2022: €142 million), also provided to Bayer-Pensionskasse. It also included capital of €63 million (2022: €62 million) provided to Rheinische Pensionskasse VVaG for its effective initial fund. In 2022, Bayer-Pensionskasse and Rheinische Pensionskasse drew amounts with a nominal volume of €500 million and €57 million, respectively, from their effective initial funds as per the corresponding agreement. In this connection, the commitment volume contained in the effective initial fund agreement between Bayer-Pensionskasse and Bayer AG was increased by €500 million.

The equity instruments in the FVTPL category comprised the €39 million (2022: €61 million) interest in Century Therapeutics, Inc., United States, and the €4 million (2022: €3 million) interest in Pyxis Oncology Inc., United States.

The equity instruments in the FVTOCI category comprised the following investments:

B 17/2

Equity Instruments Measured at Fair Value Through Other Comprehensive Income

Company name	Fair value as of Dec. 31, 2022	Fair value as of Dec. 31, 2023
Pivot Bio, Inc., USA	62	60
Recursion Pharmaceuticals Inc., USA	47	58
AMR Action Fund L.P., USA	44	42
Flagship Ventures Fund V, L.P., USA	22	16
Innovative Seed Solutions LLC, USA	12	12
Huma Therapeutics Ltd., UK	46	–
Other investments	162	136
Total	**395**	**324**

We purchased additional shares in Huma Therapeutics Ltd., United Kingdom, in 2023. As a result, the Bayer Group gained significant influence leading to a change in the accounting method such that these shares were henceforth no longer measured at fair value but rather using the equity method.

In 2023, we received a dividend totaling €8 million from our interest in KaNDy Therapeutics Limited, United Kingdom. No material dividends were received in 2022.

Further information on the accounting for receivables from derivatives is given in Note [27].

18. Inventories

Inventories were comprised as follows:

B 18/1

Inventories

€ million	Dec. 31, 2022	Dec. 31, 2023
Raw materials and supplies	2,695	2,515
Work in process, finished goods and goods purchased for resale	10,720	11,292
Rights of return	180	122
Advance payments	41	18
Total	**13,636**	**13,947**

Impairment losses recognized on inventories were reflected in the cost of goods sold. They were comprised as follows:

B 18/2

Impairments of Inventories

€ million	2022	2023
Accumulated impairment losses, January 1	(136)	(102)
Impairment losses in the reporting period	(13)	(37)
Impairment loss reversals or utilization	43	23
Exchange differences	4	11
Accumulated impairment losses, December 31	**(102)**	**(105)**

The cost of goods sold included acquisition and production costs of inventories amounting to €15,441 million (2022: €14,693 million) that were recognized as expenses.

19. Trade accounts receivable

Trade accounts receivable less loss allowances amounted to €9,343 million (2022: €10,312 million) on the closing date and pertained to the following regions and countries:

B 19/1

Trade Accounts Receivable

€ million	2022	2023
North America	3,072	2,174
of which USA	2,855	1,952
Europe/Middle East/Africa	3,004	3,112
of which Germany	683	674
Asia/Pacific	2,129	1,697
Latin America	2,807	3,002
of which Brazil	1,446	1,511
Trade accounts receivable (before impairments)	**11,012**	**9,985**
Accumulated impairment losses	(700)	(642)
Carrying amount, December 31	10,312	9,343
of which noncurrent	216	168

Trade accounts receivable mainly comprise amounts outstanding from diverse customer groups and distribution channels (including dealers and retailers for all units of the company, pharmacies for Pharmaceuticals and Consumer Health, and farmers for Crop Science). These receivables expose the Bayer Group to a credit risk, though not to significant credit risk concentrations because the risk is spread among a large number of counterparties and customers. Receivables that were not individually impaired were classified as recoverable on the basis of established credit management processes and individual estimates of customer risks. The loss allowances recognized at the closing date contained appropriate risk provisions.

Noncurrent trade accounts receivable comprised receivables of €80 million (2022: €124 million) in connection with rights to use technologies outlicensed to a customer that were acquired through the acquisition of Monsanto.

The gross carrying amounts of trade accounts receivable were as follows:

B 19/2

Trade Accounts Receivable – Gross Carrying Amounts

€ million	Trade accounts receivable for which lifetime expected credit losses are calculated (collectively assessed)	Trade accounts receivable that are credit-impaired	Total
Gross carrying amounts as of January 1, 2022	**9,606**	**711**	**10,317**
Changes resulting from trade accounts receivables recognized, derecognized or written off in the reporting period	326	93	419
Transfer to credit-impaired trade accounts receivable	(23)	23	–
Transfer from credit-impaired trade accounts receivable	50	(50)	–
Write-offs	–	(43)	(43)
Other changes:			
from exchange differences	(104)	(8)	(112)
Gross carrying amounts as of December 31, 2022	**9,855**	**726**	**10,581**
Changes resulting from trade accounts receivables recognized, derecognized or written off in the reporting period	(707)	34	(673)
Transfer to credit-impaired trade accounts receivable	(64)	64	–
Transfer from credit-impaired trade accounts receivable	44	(44)	–
Write-offs	–	(34)	(34)
Other changes:			
from exchange differences	(457)	(4)	(461)
Gross carrying amounts as of December 31, 2023	**8,671**	**742**	**9,413**

Only including receivables that are measured at amortized cost and at fair value through other comprehensive income

Loss allowances on trade accounts receivable were as follows:

B 19/3

Trade Accounts Receivable – Loss Allowances

€ million	Lifetime expected credit losses (collectively assessed)	Trade accounts receivable that are credit-impaired	Total
Loss allowances as of January 1, 2022	**98**	**556**	**654**
Changes resulting from loss allowances newly recognized or derecognized in the reporting period and additions/reductions to existing loss allowances	(20)	115	95
Transfer from loss allowances for credit-impaired trade accounts receivable	1	(1)	–
Changes due to write-offs	–	(43)	(43)
Other changes:			
from exchange differences	(2)	(4)	(6)
Loss allowances as of December 31, 2022	**77**	**623**	**700**
Changes resulting from loss allowances newly recognized or derecognized in the reporting period and additions/reductions to existing loss allowances	(8)	(8)	(16)
Transfer to loss allowances for credit-impaired trade accounts receivable	(3)	3	–
Transfer from loss allowances for credit-impaired trade accounts receivable	1	(1)	–
Write-offs	–	(34)	(34)
Other changes:			–
from exchange differences	(2)	(6)	(8)
Loss allowances as of December 31, 2023	**65**	**577**	**642**

Only including receivables that are measured at amortized cost and at fair value through other comprehensive income

The expected loss rates were as follows:

B 19/4

Trade Accounts Receivables – Expected Loss Rates

€ million	Expected loss rates				Credit-impaired	2023 total
	0 to 1%	> 1 to 5%	> 5 to 10%	> 10%		
Gross carrying amount	6,871	1,756	12	32	742	**9,413**
Loss allowance provision	22	36	1	6	577	**642**

Only including receivables that are measured at amortized cost and at fair value through other comprehensive income

B 19/5

Trade Accounts Receivables – Expected Loss Rates (Previous Year)

€ million	Expected loss rates				Credit-impaired	2022 total
	0 to 1%	> 1 to 5%	> 5 to 10%	> 10%		
Gross carrying amount	7,483	2,274	43	55	726	**10,581**
Loss allowance provision	26	40	3	8	623	**700**

Only including receivables that are measured at amortized cost and at fair value through other comprehensive income

An excess-of-loss policy exists for the Pharmaceuticals and Consumer Health segments as part of a global credit insurance program. More than 80% of the receivables of these segments are insured up to a maximum total annual compensation payment of €150 million (2022: €150 million). A global excess-of-loss policy is in place for the Crop Science segment. In this global credit insurance program, more than 80% of this segment's receivables are insured up to a maximum total annual compensation payment of €500 million (2022: €500 million).

A further €702 million (2022: €774 million) of receivables was secured by advance payments, letters of credit or guarantees or by liens on land, buildings or harvest yields.

20. Other receivables

Other receivables were comprised as follows:

B 20/1

Other Receivables

€ million	Dec. 31, 2022 Total	Dec. 31, 2022 Of which current	Dec. 31, 2023 Total	Dec. 31, 2023 Of which current
Other tax receivables	988	980	1,157	1,150
Deferred charges	330	297	315	298
Net defined benefit asset	596	–	688	–
Assets related to other long-term employee benefits	148	–	167	–
Company-owned life insurance (“COLI”)	91	–	92	–
Receivables from employees	47	47	51	51
Reimbursement claims	34	28	31	31
Miscellaneous receivables	754	571	661	500
Total	**2,988**	**1,923**	**3,162**	**2,030**

Miscellaneous receivables contained other advanced payments for services amounting to €105 million (2022: €130 million).

Other receivables are stated net of impairment losses of €5 million (2022: €3 million).

21. Equity

The individual equity components and the changes therein during 2022 and 2023 are shown in the Bayer Group Consolidated Statements of Changes in Equity.

Capital management

The foremost objectives of our financial management are to maintain business operations long term, help bring about a sustained increase in Bayer's value for the benefit of all stakeholders and to ensure the Group's creditworthiness and liquidity. The pursuit of these goals means reducing our cost of capital, optimizing our capital structure, improving our financing cash flow and effectively managing risk.

The Group's capital management is based on the debt indicators used by the rating agencies. These indicators, which vary in their design, represent the ratio of period earnings to debt. We have the ambition to reduce our financial debt considerably, to increase profit and cash flow and to improve our current investment grade ratings toward the "A" category. The contracted rating agencies assess Bayer as follows: S&P Global assigns a long-term rating of BBB and a short-term rating of A-2 with a positive outlook, Moody's a Baa2/P-2 with a negative outlook, and Fitch Ratings a BBB+/F2 with a negative outlook. These investment grade ratings from all three agencies reflect the company's high solvency and ensure access to a broad investor base for financing purposes.

In addition to utilizing cash inflows from our operational business to reduce net financial debt, we are implementing our financial strategy by way of vehicles such as subordinated hybrid bonds and a potential share buyback program. Net financial debt comprises bonds, liabilities to banks, lease liabilities, liabilities from derivative financial instruments and other financial liabilities less receivables from derivative financial instruments, cash and cash equivalents as well as current financial assets.

Bayer is not subject to any minimum capital requirements from major financing measures at the Group level.

Capital stock and capital reserves

The capital stock of Bayer AG on December 31, 2023, amounted to €2,515 million (2022: €2,515 million), divided into 982,424,082 (2022: 982,424,082) registered no-par shares, and was fully paid in. Each no-par share confers one voting right.

B 21/1

Fully Issued Shares

Number of shares	2022	2023
Total as of January 1	**982,424,082**	**982,424,082**
Shares purchased and reissued	–	–
Total as of December 31	**982,424,082**	**982,424,082**

Capital reserves contain premiums from the issuance of shares.

Accumulated comprehensive income

Accumulated comprehensive income comprises retained earnings and accumulated other comprehensive income. The retained earnings comprise prior years' undistributed income of consolidated companies and all remeasurements of the net defined benefit liability for pension or other post-employment benefits that are recognized outside profit or loss. The accumulated other comprehensive income comprises exchange rate effects recognized outside profit or loss that arise from the translation of the annual financial statements of subsidiaries outside the eurozone, the changes in fair values of equity instruments and cash flow hedges.

Dividend

Under the German Stock Corporation Act (AktG), the dividend payment is determined by the distributable profit reported in the annual financial statements of Bayer AG, which are prepared according to the German Commercial Code. Retained earnings were diminished by payment of the dividend of €2.40 per share for 2022. The proposed dividend for the 2023 fiscal year is €0.11 per share, which – based on the current number of shares – would result in a total dividend payment of €108 million. Payment of the proposed dividend is contingent upon approval by the stockholders at the Annual Stockholders' Meeting and therefore is not recognized as a liability in the consolidated financial statements.

Equity attributable to noncontrolling interest

The changes in noncontrolling interest in equity during 2022 and 2023 are shown in the following table:

B 21/2

Changes in Noncontrolling Interest in Equity

€ million	2022	2023
January 1	**148**	**153**
Changes in equity not recognized in profit or loss		
Exchange differences on translation of operations outside the eurozone	(9)	(2)
Other changes in equity	18	22
Dividend payments	(20)	(21)
Income after income taxes	16	(1)
December 31	**153**	**151**

Noncontrolling interest mainly pertained to the following companies:

B 21/3

Material Noncontrolling Interests

€ million	Bayer CropScience Limited, India 2022	Bayer CropScience Limited, India 2023	Bayer LLC Saudi Arabia, Saudi Arabia 2022	Bayer LLC Saudi Arabia, Saudi Arabia 2023	Rede Agro Fidelidade e Intermediacao S.A., Brazil 2022	Rede Agro Fidelidade e Intermediacao S.A., Brazil 2023
Interest held in noncontrolling interests (%)	28.6%	28.6%	25.0%	25.0%	31.2%	40.0%
Equity attributable to noncontrolling interest	133	103	3	6	16	44
Dividends paid to noncontrolling interest	20	19	–	–	1	2
Noncurrent assets	487	357	4	3	9	10
Current assets	423	402	124	140	183	196
Noncurrent liabilities	28	23	5	4	5	6
Current liabilities	193	159	112	115	159	138
Sales	641	620	151	166	23	21
Income after income taxes	61	(19)	(5)	12	8	12
of which attributable to noncontrolling interest	18	(5)	(1)	3	2	3
Total comprehensive income	28	(37)	(4)	12	8	14
of which attributable to noncontrolling interest	8	(11)	(1)	3	3	4
Net cash provided by (used in) operating activities	81	47	33	11	2	7
Net cash provided by (used in) investing activities	6	12	11	0	4	5
Net cash provided by (used in) financing activities	(71)	(73)	(42)	(11)	12	17

22. Provisions for pensions and other post-employment benefits

Provisions were established for defined benefit obligations pertaining to pensions and other post-employment benefits. The net liability was accounted for as follows:

B 22/1

Net Defined Benefit Liability Reflected in the Statement of Financial Position

€ million	Pensions Dec. 31, 2022	Pensions Dec. 31, 2023	Other post-employment benefits Dec. 31, 2022	Other post-employment benefits Dec. 31, 2023	Total Dec. 31, 2022	Total Dec. 31, 2023
Provisions for pensions and other post-employment benefits (net liability)	**4,286**	**3,912**	**102**	**102**	**4,388**	**4,014**
of which Germany	3,575	3,126	–	–	3,575	3,126
of which other countries	711	786	102	102	813	888
Assets arising from overfunded pension plans (net asset)	**596**	**688**	**–**	**–**	**596**	**688**
of which Germany	61	105	–	–	61	105
of which other countries	535	583	–	–	535	583
Net defined benefit liability	**3,690**	**3,224**	**102**	**102**	**3,792**	**3,326**
of which Germany	3,514	3,021	–	–	3,514	3,021
of which other countries	176	203	102	102	278	305

The expenses for defined benefit plans for pensions and other post-employment benefits comprised the following components:

B 22/2

Expenses for Defined Benefit Plans

	Pension plans						Other post-employment benefit plans	
	Germany		Other countries		Total		Other countries	
€ million	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**
Current service cost	294	117	121	102	415	219	14	13
Past service cost	–	–	(4)	(19)	(4)	(19)	–	–
of which plan curtailments	–	–	(2)	(15)	(2)	(15)	–	–
Plan settlements	–	–	–	–	–	–	1	1
Plan administration cost paid out of plan assets	2	2	6	6	8	8	–	–
Net interest	69	125	5	11	74	136	7	8
Total	**365**	**244**	**128**	**100**	**493**	**344**	**22**	**22**

In addition, a net gain of €424 million (2022: €2,557 million) from remeasurements of the net defined benefit liability was recognized in 2023 outside profit or loss. Of this amount, €484 million (2022: €2,632 million) related to pension obligations, minus €8 million (2022: €9 million) to other post-employment benefit obligations and minus €52 million (2022: minus €84 million) to the effects of the asset ceiling.
Plan curtailments of minus €15 million were made in 2023 (2022: minus €2 million).

The net defined benefit liability developed as follows:

B 22/3

Changes in Net Defined Benefit Liability

€ million	Defined benefit obligation	Fair value of plan assets	Effects of the asset ceiling	Net defined benefit liability
Germany				
January 1, 2023	**(12,701)**	**9,270**	**(83)**	**(3,514)**
Acquisitions	–	–	–	–
Divestments/changes in the scope of consolidation	(2)	1	–	(1)
Current service cost	(117)			(117)
Past service cost	–			–
Net interest	(483)	361	(3)	(125)
Net actuarial gain/(loss)	(75)			(75)
of which due to changes in financial parameters	126			126
of which due to changes in demographic parameters	–			–
of which experience adjustments	(201)			(201)
Return on plan assets excluding amounts recognized as interest income		615		615
Remeasurement of asset ceiling			(49)	(49)
Employer contributions		(161)		(161)
Employee contributions	(73)	30		(43)
Payments due to plan settlements	–	–		–
Benefits paid out of plan assets	180	(180)		–
Benefits paid by the company	451			451
Plan administration cost paid from plan assets		(2)		(2)
December 31, 2023	**(12,820)**	**9,934**	**(135)**	**(3,021)**
Other countries				
January 1, 2023	**(6,996)**	**6,740**	**(22)**	**(278)**
Acquisitions	–	–	–	–
Divestments/changes in the scope of consolidation	–	–	–	–
Current service cost	(115)			(115)
Past service cost	19			19
Gains/(losses) from plan settlements	(1)			(1)
Net interest	(333)	316	(2)	(19)
Net actuarial gain/(loss)	(235)			(235)
of which due to changes in financial parameters	(302)			(302)
of which due to changes in demographic parameters	39			39
of which due to experience adjustments	28			28
Return on plan assets excluding amounts recognized as interest income		171		171
Remeasurement of asset ceiling			(3)	(3)
Employer contributions		44		44
Employee contributions	(22)	22		–
Payments due to plan settlements	23	(23)		–
Benefits paid out of plan assets	365	(365)		–
Benefits paid by the company	126			126
Plan administration costs paid out of plan assets		(6)		(6)
Exchange differences	52	(59)	(1)	(8)
December 31, 2023	**(7,117)**	**6,840**	**(28)**	**(305)**
of which other post-employment benefits	(554)	452	–	(102)
Total, December 31, 2023	**(19,937)**	**16,774**	**(163)**	**(3,326)**

B 22/4

Changes in Net Defined Benefit Liability (Previous Year)

€ million	Defined benefit obligation	Fair value of plan assets	Effects of the asset ceiling	Net defined benefit liability
Germany				
January 1, 2022	**(17,433)**	**11,371**	**–**	**(6,062)**
Acquisitions	–	–	–	–
Divestments/changes in the scope of consolidation	11	(9)	–	2
Current service cost	(294)			(294)
Past service cost	–			–
Net interest	(205)	136	–	(69)
Net actuarial gain/(loss)	4,685			4,685
of which due to changes in financial parameters	4,763			4,763
of which due to changes in demographic parameters	–			–
of which experience adjustments	(78)			(78)
Return on plan assets excluding amounts recognized as interest income		(2,090)		(2,090)
Remeasurement of asset ceiling			(83)	(83)
Employer contributions		14		14
Employee contributions	(76)	29		(47)
Payments due to plan settlements	–	–		–
Benefits paid out of plan assets	179	(179)		–
Benefits paid by the company	432			432
Plan administration cost paid from plan assets		(2)		(2)
December 31, 2022	**(12,701)**	**9,270**	**(83)**	**(3,514)**
Other countries				
January 1, 2022	**(8,962)**	**8,666**	**(17)**	**(313)**
Acquisitions	–	–	–	–
Divestments/changes in the scope of consolidation	6	(2)	–	4
Current service cost	(135)			(135)
Past service cost	4			4
Gains/(losses) from plan settlements	–			–
Net interest	(221)	211	(2)	(12)
Net actuarial gain/(loss)	2,057			2,057
of which due to changes in financial parameters	2,156			2,156
of which due to changes in demographic parameters	(21)			(21)
of which due to experience adjustments	(78)			(78)
Return on plan assets excluding amounts recognized as interest income		(2,011)		(2,011)
Remeasurement of asset ceiling			(1)	(1)
Employer contributions		40		40
Employee contributions	(21)	21		–
Payments due to plan settlements	17	(17)		–
Benefits paid out of plan assets	379	(379)		–
Benefits paid by the company	135			135
Plan administration costs paid out of plan assets		(6)		(6)
Exchange differences	(255)	217	(2)	(40)
December 31, 2022	**(6,996)**	**6,740**	**(22)**	**(278)**
of which other post-employment benefits	(558)	456	–	(102)
Total, December 31, 2022	**(19,697)**	**16,010**	**(105)**	**(3,792)**

The benefit obligations pertained mainly to Germany (64%; 2022: 65%), the United States (19%; 2022: 20%) and the United Kingdom (6%; 2022: 6%). In Germany, current employees accounted for about 27% (2022: 29%), retirees or their surviving dependents for about 64% (2022: 62%) and former employees with vested pension rights for about 9% (2022: 9%) of entitlements under defined benefit plans. In the United States, current employees accounted for about 23% (2022: 24%), retirees or their surviving dependents for about 61% (2022: 60%) and former employees with vested pension rights for about 16% (2022: 16%) of entitlements under defined benefit plans.

The actual gains on the assets of defined benefit plans for pensions and for other post-employment benefits amounted to €1,423 million (2022: loss of €3,650 million) and €40 million (2022: loss of €104 million), respectively.

The following table shows the defined benefit obligations for pensions and other post-employment benefits along with the funded status of the funded obligations.

B 22/5

Defined Benefit Obligation and Funded Status

	Pension obligation		Other post-employment benefit obligation		Total	
€ million	2022	2023	2022	2023	2022	2023
Defined benefit obligation	**19,139**	**19,383**	**558**	**554**	**19,697**	**19,937**
of which unfunded	586	594	186	198	772	792
of which funded	18,553	18,789	372	356	18,925	19,145
Funded status of funded obligations						
Overfunding	711	858	99	103	810	961
Underfunding	3,712	3,325	15	7	3,727	3,332

Pension and other post-employment benefit obligations

Group companies provide retirement benefits for most of their employees, either directly or by contributing to privately or publicly administered funds. The benefits vary depending on the legal, fiscal and economic conditions of each country. A substantial part of the pension entitlements consists of defined contribution obligations, where the minimum benefit amount is based directly on the contribution level. The obligations relate both to existing retirees' pensions and to pension entitlements of future retirees.

Bayer has set up funded pension plans for its employees in various countries. The most appropriate investment strategy is determined for each defined benefit pension plan based on the risk structure of the obligations (especially demographics, the current funded status, the structure of the expected future cash flows, interest sensitivity, biometric risks, etc.), the regulatory environment and the existing level of risk tolerance or risk capacity. A strategic target investment portfolio is then developed in line with the plan's risk structure, taking capital market factors into consideration. Further determinants are risk diversification, portfolio efficiency and the need for both a country-specific and a global risk/return profile centered on ensuring the payment of all future benefits. As the capital investment strategy for each pension plan is developed individually in light of the plan-specific conditions listed above, the investment strategies for different pension plans may vary considerably. The investment strategies are generally aligned less toward maximizing absolute returns and more toward the maximum probability of being able to finance pension commitments over the long term. For pension plans, stress scenarios are simulated and other risk analyses (such as value at risk) undertaken with the aid of risk management systems.

Bayer-Pensionskasse VVaG, Germany (Bayer-Pensionskasse), is one of the most significant post-employment benefit plans. It has been closed to new members since 2005. This legally independent fund is regarded as a life insurance company and therefore is subject to the German Insurance Supervision Act. The benefit obligations covered by Bayer-Pensionskasse comprise retirement, surviving dependents' and disability pensions. It constitutes a defined-benefit, multi-employer plan, to which the active members and their employers contribute. The company contribution is a certain percentage of the employee contribution. This percentage is the same for all participating employers, including those outside the Bayer Group, and is set by agreement between the plan's executive committee and its supervisory board, acting on a proposal from the responsible actuary. It takes into account the differences between the actuarial estimates and the actual values for the factors used to determine liabilities and contributions. Bayer may also adjust the company contribution in agreement with the plan's executive committee and its supervisory board, acting on a proposal from the responsible actuary. The plan's liability is governed by Section 1, Paragraph 1, Sentence 3 of the German Law on the Improvement of Occupational Pensions (BetrAVG). This means that if the pension plan exercises its right under the articles of association to reduce benefits, each participating employer has to make up the resulting difference. Bayer is not liable for the obligations of participating employers outside the Bayer Group, even if they cease to participate in the plan.

Pension entitlements for people who joined Bayer in Germany in 2005 or later are granted via Rheinische Pensionskasse VVaG, Germany. Future pension payments from this defined-benefit, multi-employer plan are based on contributions and the return on plan assets; a guaranteed interest rate applies. All of the German Insurance Supervision Act regulations and BetrAVG provisions described in the section above on Bayer-Pensionskasse apply analogously to Rheinische Pensionskasse.

Another important financing vehicle is Bayer Pension Trust e. V. (BPT), Germany. This covers further retirement provision arrangements of the Bayer Group, such as deferred compensation, pension obligations previously administered by Schering Altersversorgung Treuhand e. V., Germany, and components of other direct commitments.

The defined benefit pension plans in the United States are frozen and no significant new entitlements can be earned under these plans. The assets of all the US pension plans are held by a master trust for reasons of efficiency. The applicable regulatory framework is based on the Employee Retirement Income Security Act (ERISA), which includes a statutory 80% minimum funding requirement to avoid benefit restrictions. The actuarial risks, such as investment risk, interest-rate risk and longevity risk, remain with the company.

The defined benefit pension plans in the United Kingdom have been closed to new members for some years. Plan assets in the UK are administered by independent trustees, who are legally obligated to act solely in the interests of the beneficiaries. A technical assessment is performed every three years in line with UK regulations. This serves as the basis for developing a plan to cover any potential financing requirements. Here, too, the actuarial risks remain with the company.

The other post-employment benefit obligations outside Germany mainly comprised healthcare benefit payments for retirees in the United States.

The fair value of the plan assets to cover pension and other post-employment benefit obligations was as follows:

B 22/6

Fair Value of Plan Assets as of December 31

	Pension obligations				Other post-employment obligations	
	Germany		Other countries		Other countries	
€ million	2022	2023	2022	2023	2022	2023
Plan assets based on quoted prices in active markets						
Real estate and special real estate funds	–	–	321	302	15	13
Equities and equity funds	2,388	2,673	1,206	1,023	73	56
Callable debt instruments	–	–	55	56	–	–
Noncallable debt instruments	–	–	2,712	2,932	320	354
Bond funds	3,590	3,820	1,267	1,083	–	–
Derivatives	–	–	6	14	–	1
Cash and cash equivalents	1,023	592	117	108	9	1
Other	–	–	9	7	–	–
	7,001	**7,085**	**5,693**	**5,525**	**417**	**425**
Plan assets for which quoted prices in active markets are not available						
Real estate and special real estate funds	544	581	95	57	–	–
Equities and equity funds	319	339	48	64	–	–
Callable debt instruments	608	963	5	–	–	–
Noncallable debt instruments	675	774	–	–	–	–
Bond funds	–	–	109	109	–	–
Derivatives	–	–	–	–	–	–
Cash and cash equivalents	–	–	–	–	–	–
Other	123	192	334	633	39	27
	2,269	**2,849**	**591**	**863**	**39**	**27**
Total plan assets	**9,270**	**9,934**	**6,284**	**6,388**	**456**	**452**

Plan assets included assets with a carrying amount of €3,739 million (2022: €2,899 million) whose fair values are not determined based on quoted prices in active markets.

The plan assets in Germany included real estate leased by Group companies, recognized at a fair value of €63 million (2022: €63 million), and Bayer AG shares and bonds held through investment funds, recognized at their fair values of €8 million (2022: €14 million) and €7 million (2022: €8 million), respectively.

The other plan assets comprised mortgage loans granted, other receivables and qualified insurance policies.

Risks

The risks from defined benefit plans arise partly from the defined benefit obligations and partly from the investment in plan assets. These risks include the possibility that additional contributions will have to be made to plan assets in order to meet current and future pension obligations, and negative effects on provisions and equity.

Demographic/biometric risks

Since a large proportion of the defined benefit obligations comprises lifelong pensions or surviving dependents' pensions, longer claim periods or earlier claims may result in higher benefit obligations, higher benefit expense and/or higher pension payments than previously anticipated.

Investment risks

If the actual return on plan assets were below the return anticipated on the basis of the discount rate, the funded status of defined benefit plans would decrease, assuming there were no changes in other parameters. This could happen as a result of a drop in share prices, increases in market rates of interest for certain bonds, default of individual debtors or the purchase of low-risk but low-interest bonds, for example.

Interest-rate risk

A decline in capital market interest rates, especially for high-quality corporate bonds, would increase the defined benefit obligation. This effect would be at least partially offset by the ensuing increase in the market values of the corresponding debt instruments held.

Measurement parameters and their sensitivities

The following weighted parameters were used to measure the obligations for pensions and other post-employment benefits as of December 31 of the respective year:

B 22/7

Parameters for Benefit Obligations

	Germany		Other countries		Total	
%	2022	2023	2022	2023	2022	2023
Pension obligations						
Discount rate	3.90	3.80	4.85	4.35	4.20	4.00
of which USA			5.30	4.90	5.30	4.90
of which UK			4.50	4.35	4.50	4.35
Projected future salary increases	2.75	2.50	3.50	3.60	3.00	2.90
Projected future benefit increases	2.70	2.10	3.15	3.10	2.85	2.45
Other post-employment benefit obligations						
Discount rate	–	–	5.90	5.75	5.90	5.75

The Heubeck RT 2018 G mortality tables were used in Germany, the MP-2021 Mortality Tables in the United States, and 101% of S3NMA and 102% of S3NFA in the United Kingdom.

The projected future benefit increase in Germany was adjusted to 2.10% and would have been 2.40% based on the previous estimate method, which had combined long-term expectations and cumulative inflation in a uniform benefit increase rate (2022: 2.70%). The estimate method was refined compared with the previous years to directly account for cumulative inflation up to the next benefit increase when measuring the individual obligations in question. The refined process thus takes into account cumulative inflation and long-term inflation forecasts, demographic specifics, as well as the adjustment mechanism at Bayer. The refinement increased the defined benefit obligation by €38 million at the expense of other comprehensive income.

The parameter sensitivities were computed by expert actuaries based on a detailed evaluation similar to that performed to obtain the data presented in Table B 22/3. Altering individual parameters by 0.5 percentage points or mortality by 10% per beneficiary while leaving the other parameters unchanged would have impacted pension and other post-employment benefit obligations as of year-end 2023 as follows:

B 22/8

Sensitivity of Benefit Obligations

	Germany		Other countries		Total	
€ million	Increase	Decrease	Increase	Decrease	Increase	Decrease
Pension obligations						
0.5%-pt. change in discount rate	(778)	867	(338)	371	(1,116)	1,238
0.5%-pt. change in projected future salary increases	13	(12)	59	(56)	72	(68)
0.5%-pt. change in projected future benefit increases	470	(432)	91	(53)	561	(485)
10% change in mortality	(671)	647	(161)	164	(832)	811
Other post-employment benefit obligations						
0.5%-pt. change in discount rate	–	–	(22)	24	(22)	24
10% change in mortality	–	–	(14)	15	(14)	15

B 22/9

Sensitivity of Benefit Obligations (Previous Year)

	Germany		Other countries		Total	
€ million	Increase	Decrease	Increase	Decrease	Increase	Decrease
Pension obligations						
0.5%-pt. change in discount rate	(799)	894	(314)	343	(1,113)	1,237
0.5%-pt. change in projected future salary increases	13	(12)	42	(40)	55	(52)
0.5%-pt. change in projected future benefit increases	570	(523)	77	(51)	647	(574)
10% change in mortality	(676)	656	(145)	152	(821)	808
Other post-employment benefit obligations						
0.5%-pt. change in discount rate	–	–	(22)	23	(22)	23
10% change in mortality	–	–	(13)	14	(13)	14

Provisions are also established for the obligations, mainly of US subsidiaries, to provide post-employment benefits in the form of healthcare cost payments for retirees. The valuation of healthcare costs was based on the assumption that they will increase at a rate of 6.8% (2022: 7.0%). It was assumed that this rate of increase will gradually decline to 5.0% (2022: 5.0%) by 2031 (2022: by 2031).

The following table shows the impact on other post-employment benefit obligations and total benefit expense of a one-percentage-point change in the assumed cost increase rates:

B 22/10

Sensitivity to Healthcare Cost Increases

€ million	Increase of 1% pt. 2022	Increase of 1% pt. 2023	Decrease of 1% pt. 2022	Decrease of 1% pt. 2023
Impact on other post-employment benefit obligations	27	29	(24)	(25)
Impact on benefit expense	2	2	(1)	(1)

Payments made and expected future payments

The following payments or asset contributions correspond to the employer contributions made or expected to be made to funded benefit plans:

B 22/11

Employer Contributions Paid or Expected

€ million	Germany 2022	Germany 2023	Germany 2024 expected	Other countries 2022	Other countries 2023	Other countries 2024 expected
Pension obligations	14	(161)	104	66	62	59
Other post-employment benefit obligations	–	–	–	(26)	(18)	3
Total	**14**	**(161)**	**104**	**40**	**44**	**62**

Bayer had previously been committed to making deficit contributions for its UK pension plans of approximately GBP27 million annually, although this fixed commitment ceased to apply from 2022. For its US pension plans, Bayer did not make any deficit contributions in 2023 or in 2022, and expects to make zero or only very low regular payments in 2024 as most of these plans are closed and frozen.

Pensions and other post-employment benefits payable in the future from funded and unfunded plans are estimated as follows:

B 22/12

Future Benefit Payments

€ million	Payments out of plan assets: Pensions – Germany	Payments out of plan assets: Pensions – Other countries	Payments out of plan assets: Other post-employment benefits – Other countries	Payments out of plan assets: Total	Payments by the company: Pensions – Germany	Payments by the company: Pensions – Other countries	Payments by the company: Other post-employment benefits – Other countries	Payments by the company: Total
2024	189	394	22	605	499	102	27	628
2025	190	395	21	606	514	105	25	644
2026	190	397	22	609	530	111	26	667
2027	191	400	21	612	531	113	27	671
2028	192	406	22	620	530	122	28	680
2029–2033	971	2,042	103	3,116	2,634	709	142	3,485

The weighted average term of the pension obligations is 13.5 years (2022: 14.2 years) in Germany and 11.9 years (2022: 11.5 years) in other countries. The weighted average term of the obligations for other post-employment benefits in other countries is 9.1 years (2022: 9.1 years).

23. Other provisions

Changes in the various provision categories in 2023 were as follows:

B 23/1

Changes in Other Provisions

€ million	Other taxes	Environ-mental protec-tion	Restruc-turing	Trade-related commit-ments	Litigations	Personnel commit-ments	Miscella-neous	Total
January 1, 2023	**34**	**617**	**1,260**	**284**	**7,466**	**3,283**	**739**	**13,683**
Additions	52	100	302	96	746	2,184	639	4,119
Utilization	(34)	(41)	(544)	(74)	(1,519)	(2,627)	(444)	(5,283)
Reversal	(3)	(26)	(102)	(24)	(216)	(945)	(162)	(1,478)
Interest cost	–	25	1	–	304	11	7	348
Exchange differences	(1)	(21)	(15)	(1)	(241)	(72)	(13)	(364)
December 31, 2023	**48**	**654**	**902**	**281**	**6,540**	**1,834**	**766**	**11,025**
of which current	27	74	235	246	1,227	1,120	312	3,241

The provisions were partly offset by reimbursement claims in the amount of €20 million (2022: €22 million), which were recognized as receivables. These reimbursement claims primarily related to product liability.

Environmental protection

Provisions for environmental protection are mainly established for the expected costs of ensuring compliance with environmental regulations, remediation work on contaminated land, recultivation of landfills, and redevelopment and water protection measures.

Restructuring

Provisions for restructuring only cover expenses that arise directly from restructuring measures, are necessary for restructuring and are not related to future business operations. Such expenses include severance payments to employees and compensation payments in respect of rented property that is no longer used.

Restructuring measures may include the sale or termination of business units, site closures, relocations of business activities or fundamental reorganizations of business units.

Provisions for restructuring included €889 million (2022: €1,233 million) for severance payments and €13 million (2022: €27 million) for other restructuring expenses. The breakdown of provisions by segment was as follows: €125 million (2022: €170 million) at Crop Science, €403 million (2022: €633 million) at Pharmaceuticals, €13 million (2022: €20 million) at Consumer Health and €361 million (2022: €437 million) in Enabling Functions/All Other Segments.

In 2023, Bayer announced the introduction of a new operating model for the entire Group. The aim of the new system, which is called Dynamic Shared Ownership (DSO), is to ensure we adopt an even stronger orientation toward customer needs and deploy resources more efficiently.

In late 2023, the company began to undertake its first specific communication measures to inform affected employees and employee representatives, which meant that corresponding provisions had to be established under IAS 37. Future provisions will need to be established depending on the development of detailed formal plans for the planned measures and the communication thereof to the affected employees.

The decline in provisions for restructuring at Crop Science was particularly attributable to the ongoing severance payments resulting from reorganization measures due to the Monsanto integration.

At Pharmaceuticals, the decline in restructuring-related provisions was primarily due to the implementation of the restructuring plans involving headcount reductions that had been specifically communicated in 2022, and the respective severance payments, particularly in Japan, France and Germany. This global program was aimed at driving a fundamental organizational transformation in step with the long-term strategy and Bayer's aspiration as a leading science company to deliver groundbreaking innovation.

The ongoing utilization of the existing provisions in conjunction with the current transformation initiative also led to a decrease in the restructuring-related provisions for Consumer Health.

The decline for Enabling Functions/All Other Segments was largely due to the further utilization of the existing provisions for the headcount reduction measures defined in previous years.

Trade-related commitments

Trade-related provisions are recorded mainly for obligations related to services performed but not yet invoiced and to sales commissions not recognized under trade accounts payable.

Litigations

The legal risks currently considered to be material, and their development, are described in Note [30].

Personnel commitments

Personnel-related provisions include those for variable, performance-related one-time payments to employees, stock-based payments, and payments related to long-service anniversaries, early retirement programs and pre-retirement part-time working arrangements. Provisions for severance payments resulting from restructuring are reflected in provisions for restructuring.

Stock-based compensation programs

Bayer offers the stock-based compensation programs Aspire 2.0, Aspire 3.0 and BayShare 2023 collectively to different groups of employees. The Aspire 2.0 and Aspire 3.0 programs are accounted for in accordance with the requirements of IFRS 2 concerning cash-settled share-based payment transactions. By contrast, the BayShare stock-based compensation program is accounted for in line with the requirements of IFRS 2 concerning equity-settled share-based payment transactions. Provisions are established for all awards to be made under the Aspire 2.0 and Aspire 3.0 programs. The provisions are recognized in the amount of the fair value of the obligations existing as of the date of the financial statements. All resulting changes in value are recognized in profit or loss.

The following table shows the changes in the provisions established for Aspire 2.0 and Aspire 3.0:

B 23/2

Changes in Provisions

€ million	Aspire
January 1, 2023	**842**
Additions	594
Utilization	(248)
Reversal	(752)
Exchange differences	(15)
December 31, 2023	**421**

The value of the Aspire 2.0 tranche that was fully earned at the end of 2023, resulting in payments at the beginning of 2024, was €135 million (2022: €245 million).

The net gain for all stock-based compensation programs was €153 million (2022: expense of €365 million) and included expenses of €5 million (2022: €5 million) for the BayShare stock participation program. The decline in provisions was primarily due to the development of the underlying parameters to determine the fair value of liabilities, such as Bayer's share price and ROCE. For information on the hedging of stock-based compensation for our employees and the resulting additional effects on the income statement, see Note [27.3].

Long-term incentive program Aspire 2.0

Aspire 2.0 is based on a percentage of each employee's annual base salary, the percentage varying according to their position. This target value is multiplied by the employee's STI (short-term incentive) payment factor for the previous year to give the Aspire grant value. The STI payment factor reflects the business performance under the global short-term incentive program. The Aspire grant value is converted into virtual Bayer shares by dividing it by the share price at the start of the program. The program's performance is based on these virtual shares. Each tranche runs for four years. Detailed information on the stock-based compensation of the Board of Management can be found in the Compensation Report (www.bayer.com/cpr).

The fair value of the obligations is determined from the price of Bayer stock at year-end and the dividends paid up to that time. The payment made at the end of each tranche is determined by multiplying the number of virtual shares by the Bayer share price at that time and adding an amount equivalent to the dividends paid during the period of the tranche. The maximum payment for Aspire 2.0 is 250% of the Aspire grant value.

At the start of 2024, a payment of 60% was made for the tranche issued in 2020.

Long-term incentive program Aspire 3.0

Due to the introduction of Aspire 3.0 in 2020, Bayer's long-term compensation program now includes a series of additional strategic performance indicators that are aligned toward the company's strategy. Eligibility was limited to the members of the Board of Management in the first year of the program. However, since the beginning of 2021, it has also been made available to eligible employees below this level.

As with Aspire 2.0, the annual tranches are granted over a four-year term in the form of virtual shares. This program is also based on a percentage of each employee's annual base salary (the so-called LTI target amount), the percentage varying according to their position. The number of virtual shares is determined by dividing the LTI target amount by the price of Bayer shares at the beginning of the program. However, the individual STI payout factor is no longer taken into consideration when calculating the number of virtual shares.

The fair value of the obligations continues to be determined from the price of Bayer stock and the dividends already paid. Compared with Aspire 2.0, however, there is also an additional performance factor to be taken into account that comprises three weighted performance components: relative capital market performance (40%), return on investment (40%) and sustainability (20%). The final LTI payout is determined by multiplying the number of virtual shares by the Bayer share price at the end of the performance period and the performance factor mentioned above, and then adding an amount equivalent to the dividends paid during the performance period. The maximum payout is 250% of the LTI target amount. Detailed information on the stock-based compensation of the Board of Management and the three performance components mentioned above can be found in the Compensation Report (www.bayer.com/cpr).

BayShare 2023

All management levels and nonmanagerial employees in Germany are offered a stock participation program known as BayShare, under which Bayer subsidizes their personal investments in the company's stock. On November 9, 2023, approximately 576,000 Bayer AG shares (2022: 492,000 shares) were purchased at a price of €41.85 per share (2022: €50.11 per share) for this purpose in accordance with Section 71, Paragraph 1, No. 8 of the German Stock Corporation Act. These shares corresponded to €1.5 million (2022: €1.3 million), or 0.06% (2022: 0.05%), of the capital stock. At the time of purchase, the value of the shares was €24 million (2022: €25 million). The shares were deposited in employees' securities accounts in late 2023, meaning that Bayer AG did not hold any own shares as of December 31, 2023.

The discount granted under this program in 2023 was 20% (2022: 20%) of the subscription amount. Employees stated a fixed amount that they wished to invest in shares. The maximum subscription amount in Germany was set at €2,500 (2022: €2,500) or €5,000 (2022: €5,000), depending on the employee's position. The shares purchased must be retained until December 31, 2024.

Miscellaneous

Miscellaneous provisions include those for interest payments on income taxes and other taxes, for other liabilities, except where these are allocable to other provision categories, and for decommissioning and similar obligations.

A sensitivity analysis undertaken for certain provisions that examined the impact of a five-percentage-point change in the probabilities of occurrence in each case did not produce any material deviations from the amount of provisions established.

24. Financial liabilities

Financial liabilities were comprised as follows:

B 24/1

Financial Liabilities

	Dec. 31, 2022		Dec. 31, 2023	
€ million	Total	Of which current	Total	Of which current
Bonds and notes	36,602	3,775	40,852	3,756
Liabilities to banks	3,484	3,482	784	654
Lease liabilities	1,234	282	1,238	294
Liabilities from derivatives	190	184	217	217
Other financial liabilities	142	138	1,915	1,909
Total	**41,652**	**7,861**	**45,006**	**6,830**

A breakdown of financial liabilities by contractual maturity is given below:

B 24/2

Maturities of Financial Liabilities

€ million	Dec. 31, 2022
2023	7,861
2024	4,074
2025	4,257
2026	1,865
2027	1,575
2028 or later	22,020
Total	**41,652**

€ million	Dec. 31, 2023
2024	6,830
2025	4,272
2026	3,697
2027	1,612
2028	3,555
2029 or later	25,040
Total	**45,006**

The Bayer Group has issued the following bonds and notes:

B 24/3

Bonds and Notes

	Nominal volume as of Dec. 31, 2022	Carrying amount as of Dec. 31, 2022 (€ million)	Nominal volume as of Dec. 31, 2023	Carrying amount as of Dec. 31, 2023 (€ million)
Hybrid bonds[1]				
Hybrid bond[3] 2014/2024[2]/2074	EUR 1,500 million	1,499	EUR 700 million	700
Hybrid bond[3] 2019/2025[2]/2079	EUR 1,000 million	995	EUR 412 million	411
Hybrid bond 2019/2027[2]/2079	EUR 750 million	748	EUR 750 million	748
Hybrid bond 2022/2027[2]/2082	EUR 500 million	495	EUR 500 million	496
Hybrid bond 2022/2030[2]/2082	EUR 800 million	791	EUR 800 million	792
Hybrid bond 2023/2028[2]/2083	–	–	EUR 750 million	743
Hybrid bond 2023/2031[2]/2083	–	–	EUR 1,000 million	988
USD bonds[1]				
Maturity < 1 year	USD 3,500 million	3,275	USD 2,500 million	2,257
Maturity > 1 year < 5 years	USD 5,614 million	5,226	USD 7,964 million	7,181
Maturity > 5 years	USD 10,800 million	9,887	USD 11,700 million	10,357
EUR bonds[1]				
Maturity < 1 year	EUR 500 million	500	EUR 1,500 million	1,499
Maturity > 1 year < 5 years	EUR 5,950 million	5,932	EUR 5,200 million	5,188
Maturity > 5 years	EUR 7,300 million	7,254	EUR 9,550 million	9,492
Total		**36,602**		**40,852**

[1] The bonds are issued in the functional currency of the issuing entity and have a fixed coupon. In 2022, bonds with a nominal volume of US$1,250 million had variable rates of interest.
[2] Date of first option to redeem the bond early at par
[3] Some of the hybrid bonds were repurchased before the first call date.

Hybrid bonds

The hybrid bonds issued by Bayer AG are subordinated, and 50% of their amount is treated as equity by three contracted rating agencies. They therefore have a more limited effect on the Group's rating-specific debt indicators than senior borrowings.

In 2023, Bayer AG repurchased €1.4 billion in hybrid bonds maturing in 2074 (callable on July 1, 2024) and 2079 (callable on February 12, 2025) before the first call date. To finance the repurchase, new hybrid bonds with a total volume of €1.75 billion were placed. The two tranches have a final maturity of 60 years. The first tranche in the amount of €750 million with a noncall period of 5.25 years pays a coupon of 6.625%. The second tranche in the amount of €1.0 billion with a noncall period of 8.25 years pays a coupon of 7.000%.

Bayer AG had placed hybrid bonds with a total volume of €1.3 billion in 2022. The issuance comprised two tranches, each with a final maturity of 60 years. The first tranche in the amount of €500 million with a noncall period of 5.5 years pays a coupon of 4.5%. The second tranche in the amount of €800 million with a noncall period of 8.5 years pays a coupon of 5.375%.

Other bonds

In 2023, Bayer AG placed new senior bonds with a total volume of €3 billion under its Debt Issuance Program. The three tranches with volumes of €750 million, €750 million and €1.5 billion have maturities of 3.25 years, 6.25 years and 10 years, respectively. The coupons of the notes are 4.000%, 4.250% and 4.625%, respectively.

In addition, Bayer US Finance LLC, United States, placed bonds with a volume of US$5.75 billion (€5.3 billion). The five tranches with maturities of 3, 5.2, 7, 10 and 30 years have volumes of US$1.0 billion (€0.9 billion), US$1.0 billion (€0.9 billion), US$1.25 billion (€1.2 billion), US$1.75 billion (€1.6 billion) and US$0.75 billion (€0.7 billion) and coupons of 6.125%, 6.250%, 6.375%, 6.500% and 6.875%, respectively.

Furthermore, two bonds with a total volume of US$3.5 billion (€3.2 billion) and one bond with a nominal volume of €500 million were redeemed at maturity in 2023.

In 2021, Bayer AG placed bonds with a total volume of €4 billion. The four tranches with volumes of between €0.8 and €1.2 billion have maturities of 4 years, 8 years, 10.5 years and 15 years. The coupons on the notes are 0.05% p.a., 0.375% p.a., 0.625% p.a. and 1.00% p.a., respectively.

In 2022, two bonds with a total volume of US$250 million (€229 million) were redeemed before maturity, while two bonds with a total volume of €1.75 billion and one with a nominal volume of JPY10 billion (€73 million) were redeemed at maturity.

Liabilities to banks

The decrease in liabilities to banks is due to repayment of the €3 billion credit line with banks that had been drawn upon in May 2022.

Lease liabilities

Further information on lease liabilities is given in Note [28].

Other financial liabilities

Other financial liabilities as of December 31, 2023, included €1,867 million in commercial paper (2022: €80 million).

Other information

A total of €4.5 billion in undrawn credit facilities remained available to the Bayer Group as of December 31, 2023 (December 31, 2022: €4.5 billion).

Further information on the accounting for liabilities from derivatives is given in Note [27].

25. Trade accounts payable

Trade accounts payable comprised €7,414 million (2022: €7,490 million) due within one year and €42 million (2022: €55 million) due after one year.

This figure included invoices of €224 million (2022: €215 million) in connection with supply chain financing programs that were or will be paid to suppliers by a bank and that Bayer will settle with the bank when due.

26. Other liabilities

Other liabilities comprised the following:

B 26/1

Other Liabilities

€ million	Dec. 31, 2022 Total	Dec. 31, 2022 Of which current	Dec. 31, 2023 Total	Dec. 31, 2023 Of which current
Other tax liabilities	558	530	609	586
Liabilities from derivatives	157	148	100	96
Accrued interest on liabilities	272	272	334	334
Liabilities for social expenses	217	217	175	175
Liabilities to employees	217	217	180	179
Deferred income	76	35	86	55
Miscellaneous liabilities	3,414	2,365	1,495	567
Total	**4,911**	**3,784**	**2,979**	**1,992**

Miscellaneous liabilities were diminished by €1,230 million due to settlement payments associated with the PCB litigations. These payments were effected in January 2023 after having been reclassified from provisions for litigations to other liabilities in 2022. The decline in miscellaneous liabilities was also attributable to the milestone payments in connection with the acquisitions of the US-based companies Asklepios BioPharmaceutical, Inc. (AskBio), BlueRock Therapeutics LP (BlueRock) and Vividion Therapeutics, Inc. (Vividion). The decline amounted to €461 million for Vividion and €185 million for AskBio and BlueRock in 2023. This results in remaining possible milestone payments under miscellaneous liabilities of €956 million (2022: €1,241 million) attributable to the US-based companies AskBio and BlueRock.

The deferred income included €27 million (2022: €26 million) in grants and subsidies received from governments, of which €3 million (2022: €8 million) was reversed through profit or loss.

27. Financial instruments

The system used by the Bayer Group to manage credit risks, liquidity risks and the different types of market-price risk (interest-rate, currency and commodity-price risks), together with its objectives, methods and procedures, is outlined in the Opportunity and Risk Report, which forms part of the Combined Management Report. It also contains more detailed information on individual market-price risks.

27.1 Financial instruments by category

The following tables show the carrying amounts and fair values of the individual financial assets and liabilities by category of financial instrument under IFRS 9 and a reconciliation to the corresponding line items in the statements of financial position. Since the line items “Trade accounts receivable,” “Other receivables,” “Financial liabilities” and “Other liabilities” contain both financial instruments and nonfinancial assets or liabilities (such as other tax receivables), the reconciliation is shown in the column headed “Nonfinancial assets/liabilities.”

B 27.1/1

Carrying Amounts and Fair Values of Financial Instruments

Dec. 31, 2023

		Carried at fair value [fair value for information[4]]				
Measurement category (IFRS 9)[1]	Carried at amortized cost	Based on quoted prices in active markets (Level 1)	Based on observable market data (Level 2)	Based on unobservable inputs (Level 3)	Nonfinancial assets/ liabilities	
€ million	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Total**
Trade accounts receivable	8,771	327			245	9,343
AC	8,771					8,771
FVTPL, mandatory[2]		327				327
FVTOCI (recycling)			627			627
Nonfinancial assets					245	245
Other financial assets	947	2,849	1,520	1,787		7,103
AC	919		[897]			919
FVTPL, mandatory[2]		2,774	1,379	1,494		5,647
FVTOCI (no recycling), designated[3]		63		261		324
FVTPL – derivatives – no hedge accounting		12	60	32		104
Derivatives – hedge accounting			81			81
Lease receivables	28		[28]			28
Other receivables	387			82	2,693	3,162
AC	387		[387]			387
FVTPL, mandatory[2]				82		82
Nonfinancial assets					2,693	2,693
Cash and cash equivalents	5,907					5,907
AC	5,907		[5,907]			5,907
Total financial assets	**16,012**	**3,176**	**1,520**	**1,869**		**22,577**
of which AC	15,984					15,984
of which FVTPL		3,113	1,439	1,608		6,160
Financial liabilities	44,703		217		86	45,006
AC	43,465	[28,558]	[12,588]			43,465
FVTPL – derivatives – no hedge accounting			209			209
Derivatives – hedge accounting			8			8
Lease liabilities	1,238					1,238
Nonfinancial liabilities					86	86
Trade accounts payable	7,456					7,456
AC	7,456					7,456
Other liabilities	932	8	91	1,031	917	2,979
AC	932		[932]			932
FVTPL (nonderivative), mandatory[2]				1,030		1,030
FVTPL – derivatives – no hedge accounting		8	25	1		34
Derivatives – hedge accounting			66			66
Nonfinancial liabilities					917	917
Total financial liabilities	**53,091**	**8**	**308**	**1,031**		**54,438**
of which AC	51,853					51,853
of which FVTPL		8	234	1,031		1,273

[1] AC: at amortized cost
FVTOCI: at fair value through other comprehensive income
FVTPL: at fair value through profit or loss
[2] Measured at fair value through profit or loss as required by IFRS 9
[3] Measured at fair value through other comprehensive income under IFRS 9.5.7.5
[4] Fair value of the financial instruments at amortized cost under IFRS 7.29 (a)

B 27.1/2

Carrying Amounts and Fair Values of Financial Instruments (Previous Year)

Dec. 31, 2022

Measurement category (IFRS 9)[1]	Carried at amortized cost	Carried at fair value [fair value for information[4]] Based on quoted prices in active markets (Level 1)	Based on observable market data (Level 2)	Based on unobservable inputs (Level 3)	Nonfinancial assets/ liabilities	
€ million	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Carrying amount**	**Total**
Trade accounts receivable	9,881	177			254	10,312
AC	9,881					9,881
FVTPL, mandatory[2]		177				177
FVTOCI (recycling)						
Nonfinancial assets					254	254
Other financial assets	259	1,459	3,746	1,793		7,257
AC	230		[219]			230
FVTPL, mandatory[2]		1,395	3,524	1,440		6,359
FVTOCI (no recycling), designated[3]		55		340		395
FVTPL – derivatives – no hedge accounting		9	96	13		118
Derivatives – hedge accounting			126			126
Lease receivables	29		[29]			29
Other receivables	406			33	2,549	2,988
AC	406		[406]			406
FVTPL, mandatory[2]				33		33
Nonfinancial assets					2,549	2,549
Cash and cash equivalents	5,171					5,171
AC	5,171		[5,171]			5,171
Total financial assets	**15,717**	**1,636**	**3,746**	**1,826**		**22,925**
of which AC	15,688					15,688
of which FVTPL		1,581	3,620	1,486		6,687
Financial liabilities	41,377		190		85	41,652
AC	40,143	[28,340]	[8,298]			40,143
FVTPL – derivatives – no hedge accounting			171			171
Derivatives – hedge accounting			19			19
Lease liabilities	1,234					1,234
Nonfinancial liabilities					85	85
Trade accounts payable	7,545					7,545
AC	7,545					7,545
Other liabilities	2,124	9	143	1,734	901	4,911
AC	2,124		[2,124]			2,124
FVTPL (nonderivative), mandatory[2]				1,729		1,729
FVTPL – derivatives – no hedge accounting		9	25	5		39
Derivatives – hedge accounting			118			118
Nonfinancial liabilities					901	901
Total financial liabilities	**51,046**	**9**	**333**	**1,734**		**53,122**
of which AC	49,812					49,812
of which FVTPL		9	196	1,734		1,939

[1] AC: at amortized cost
FVTOCI: at fair value through other comprehensive income
FVTPL: at fair value through profit or loss
[2] Measured at fair value through profit or loss as required by IFRS 9
[3] Measured at fair value through other comprehensive income under IFRS 9.5.7.5
[4] Fair value of the financial instruments at amortized cost under IFRS 7.29 (a)

Due to the short maturities of most trade accounts receivable and payable, other financial receivables and liabilities, and cash and cash equivalents, their carrying amounts at the closing date do not significantly differ from the fair values. Trade accounts receivable are measured at fair value through other comprehensive income if they can potentially be transferred as part of factoring agreements. In case of a transfer, all of the risks and opportunities contained in these agreements are transferred, resulting in complete derecognition of the receivables.

The fair values of financial assets and liabilities measured at amortized cost that are given for information are the present values of the respective future cash flows. The present values are determined by discounting the cash flows at a closing-date interest rate, taking into account the term of the assets or liabilities and also the creditworthiness of the counterparty in certain cases. Where a market price is available, however, this is deemed to be the fair value.

The fair values of financial assets measured at fair value correspond to quoted prices in active markets (Level 1), or are determined using valuation techniques based on observable market data as of the end of the reporting period (Level 2), or are the present values of the respective future cash flows, determined on the basis of unobservable inputs (Level 3).

The fair values of derivatives for which no publicly quoted prices exist in active markets (Level 1) are determined using valuation techniques based on observable market data as of the end of the reporting period (Level 2). In applying valuation techniques, credit or debt value adjustments are determined to account for the credit risk of the contractual party or Bayer.

Currency and commodity forward contracts are measured individually at their forward rates or forward prices on the closing date. These depend on spot rates or prices, including time spreads. The fair values of interest-rate hedging instruments and cross-currency interest-rate swaps were determined by discounting future cash flows over the remaining terms of the instruments at market rates of interest, taking into account any foreign currency translation as of the closing date in certain cases.

Fair values measured using unobservable inputs are categorized within Level 3 of the fair value hierarchy. This essentially applies to certain debt or equity instruments, in some cases to the fair values of embedded derivatives, and to obligations for contingent consideration in business combinations. Credit risk is frequently the principal unobservable input used to determine the fair values of debt instruments classified as “FVTPL – at fair value through profit or loss” by the discounted cash flow method. Here the credit spreads of comparable issuers are applied. A significant increase in credit risk could result in a lower fair value, whereas a significant decrease could result in a higher fair value. However, a relative change of 10% in the credit spread does not materially affect the fair value.

When determining the fair values of contingent consideration within the “FVTPL (nonderivative) – at fair value through profit or loss” category, the principal unobservable input is the estimation of the probability that, for example, predefined milestones for research and development projects will be achieved or that sales targets will be attained, as well as the timing of the payments. Changes in these estimates may lead to significant increases or decreases in fair value.

Embedded derivatives are separated from their respective host contracts if the contracts do not represent financial assets and are not closely related to them. Such host contracts are generally sale or purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with exchange-rate or price fluctuations, for example. The internal measurement of embedded derivatives is performed using appropriate valuation models, such as discounted cash flow models, which are based on unobservable inputs. The relevant models include planned sales and purchase volumes, and prices derived from market data. Regular monitoring is carried out based on these fair values as part of quarterly reporting.

In May 2023, Bayer announced the signing of a long-term structured renewable energy credit (REC) purchase agreement in the United States under which up to 1.4 TWh of renewable energy will be generated annually. The purchase agreement falls under the own use exemption in accordance with IFRS 9.2.4, but also contains a contract for difference, which meets the definition of an embedded derivative measured at fair value through profit and loss. At inception, the fair value of the embedded derivative equaled the transaction price of zero. Fair value changes over the contract term are mostly influenced by future energy prices and are recognized in other operating income or expenses. As of December 31, 2023, the positive fair value was €31 million. If the expected energy prices had been 10% higher (or lower) as of December 31, 2023, the fair value of the embedded derivative would, all other things being equal, have been €54 million higher (€68 million lower).

The maximum default risk from financial assets that are measured at amortized cost and are subject to the impairment model is €16,012 million (2022: €15,717 million).

The maximum default risk from existing loan commitments that are subject to the impairment model is €1,097 million (2022: €1,108 million). In this connection, expected credit losses totaling €1 million (2022: €2 million) were reversed through profit or loss.

The maximum default risk from financial assets not subject to the impairment model is €6,565 million (2022: €7,208 million).

A Bayer subsidiary holds a share – in the form of a contractually linked instrument – in a fund with which a customer finance program was established. This fund is a nonconsolidated structured entity that settles payments owed to Bayer by customers on their behalf, whereupon the contractual rights to payment from these claims expire and the associated claims are fully derecognized by Bayer upon receipt of the payment. The fund’s right to payment from the customer is based on a separate agreement with the customer, the promissory note. The fund is financed by investors who have purchased shares, with Bayer holding a 13.5% share of the fund volume. The fund can hold promissory notes with a value of up to €185 million. The shares are reported under other receivables and measured at amortized cost. The carrying amount of the shares held by Bayer as of December 31, 2023, was €25 million. The maximum default risk is equal to the respective carrying amount. If customers are unable to service their promissory notes, defaults would initially be borne by an investor in an amount of 1.5% of the fund volume; thereafter, Bayer would be subject to losses amounting to as much as 13.5% of the fund volume, while all other losses would be borne by a bank. The fund is not consolidated as Bayer cannot exercise any control over its relevant activities.

The changes in the amount of financial assets and liabilities recognized at fair value based on unobservable inputs (Level 3) for each financial instrument category were as follows:

B 27.1/3

Development of Financial Assets and Liabilities (Level 3)

€ million	Assets – FVTPL[1]	FVTOCI (no recycling)[1]	Derivatives (net)	Liabilities – FVTPL (non-derivative)[1]	Total
Carrying amount, January 1, 2023	**1,473**	**340**	**8**	**(1,729)**	**92**
Gains/(losses) recognized in profit or loss	71	–	24	43	138
of which relating to assets/liabilities held at the end of the reporting period	71	–	24	43	138
Gains/(losses) recognized outside profit or loss	–	(33)	–	–	(33)
Additions of assets/(liabilities)	163	22	–	(35)	150
Settlements of (assets)/liabilities	(126)	(1)	–	649	522
Changes in scope of consolidation	–	(58)	–	–	(58)
Exchange differences	(5)	(9)	(1)	42	27
Carrying amount, December 31, 2023	**1,576**	**261**	**31**	**(1,030)**	**838**

[1] See table B 27.1/1 for definitions of measurement categories.

B 27.1/4

Development of Financial Assets and Liabilities (Level 3) (Previous Year)

€ million	Assets – FVTPL[1]	FVTOCI (no recycling)[1]	Derivatives (net)	Liabilities – FVTPL (non-derivative)[1]	Total
Carrying amount, January 1, 2022	**1,009**	**406**	**11**	**(1,769)**	**(343)**
Gains/(losses) recognized in profit or loss	(108)	–	(4)	(6)	(118)
of which relating to assets/liabilities held at the end of the reporting period	(108)	–	(4)	(6)	(118)
Gains/(losses) recognized outside profit or loss	–	(48)	–	–	(48)
Additions of assets/(liabilities)	591	67	–	–	658
Settlements of (assets)/liabilities	(10)	(45)	–	140	85
Changes in scope of consolidation	(18)	(61)	–	–	(79)
Exchange differences	9	21	1	(94)	(63)
Carrying amount, December 31, 2022	**1,473**	**340**	**8**	**(1,729)**	**92**

[1] See table B 27.1/2 for definitions of measurement categories.

The changes recognized in profit or loss were included in other operating income/expenses, as well as in the financial result in interest income, exchange gains or losses, and other financial income and expenses.

Income, expense, gains and losses on financial instruments can be assigned to the following categories:

B 27.1/5

Income, Expense, Gains and Losses on Financial Instruments

€ million	Assets – AC[1]	Assets - FVTPL[1]	FVTOCI (no recycling)[1]	Derivatives – no hedge accounting – FVTPL[1]	Liabilities – AC[1]	Liabilities – FVTPL (non-derivative)[1]	Total
							2023
Interest income	270	157	–	–	2	–	429
Interest expense	–	–	–	–	(1,580)	–	(1,580)
Income/(expenses) from affiliated companies	–	–	9	–	–	–	9
Changes in fair value	–	(2)	–	17	–	43	58
Impairment losses	(170)	–	–	–	–	–	(170)
Impairment loss reversals	168	–	–	–	–	–	168
Exchange gains/(losses)	25	–	–	(208)	(113)	–	(296)
Gains/(losses) from retirements	–	–	–	–	–	–	–
Other financial income/(expenses)	(78)	–	–	–	27	–	(51)
Net result	**215**	**155**	**9**	**(191)**	**(1,664)**	**43**	**(1,433)**

[1] See table B 27.1/1 for definitions of measurement categories.

B 27.1/6

Income, Expense, Gains and Losses on Financial Instruments (Previous Year)

€ million	Assets – AC[1]	Assets – FVTPL[1]	FVTOCI (no recycling)[1]	Derivatives – no hedge accounting – FVTPL[1]	Liabilities – AC[1]	Liabilities – FVTPL (non-derivative)[1]	Total
							2022
Interest income	141	91	–	6	27	–	265
Interest expense	–	–	–	(5)	(1,254)	–	(1,259)
Income/(expenses) from affiliated companies	–	–	1	–	–	–	1
Changes in fair value	–	(434)	–	2	–	(6)	(438)
Impairment losses	(126)	–	–	–	–	–	(126)
Impairment loss reversals	128	–	–	–	–	–	128
Exchange gains/(losses)	(35)	–	–	(129)	(11)	–	(175)
Gains/(losses) from retirements	3	–	–	–	–	–	3
Other financial income/(expenses)	(55)	–	–	–	(15)	–	(70)
Net result	**56**	**(343)**	**1**	**(126)**	**(1,253)**	**(6)**	**(1,671)**

[1] See table B 27.1/2 for definitions of measurement categories.

The interest income and expense from assets and liabilities within the AC category also included income and expenses from interest-rate derivatives that qualified for hedge accounting. Income and expenses from lease receivables and lease liabilities, respectively, are also included here.

The changes in the fair value of assets within the FVTPL category mainly included changes in the fair value of the interests in Century and Pyxis, as well as changes in the fair value of investments in money market funds and mixed funds. Dividend income is reflected in income from affiliated companies, while interest income from debt instruments within the FVPTL category is included in interest income and primarily concerns interest income from the capital provided to Bayer-Pensionskasse for its effective initial fund and from money market funds. The changes in the fair value of derivatives that do not qualify for hedge accounting related mainly to forward commodity contracts and embedded derivatives.

Changes in the fair value of (nonderivative) liabilities within the FVTPL category mainly included changes in the fair value of obligations for contingent consideration in connection with business acquisitions.

Derivatives that form part of a master netting arrangement, constitute a financial asset or liability, and can only be netted in the event of breach of contract by, or insolvency of, one of the contracting parties do not satisfy, or only partially satisfy, the criteria for offsetting in the statement of financial position according to IAS 32. The volume of such derivatives with positive fair values was €118 million (2022: €188 million), and the volume with negative fair values was €322 million (2022: €310 million). Included here is an amount of €109 million (2022: €152 million) in positive and negative fair values of derivatives concluded with the same contracting party.

27.2 Maturity analysis

The liquidity risks to which the Bayer Group was exposed through its financial instruments at the end of the reporting period comprised obligations for future interest and repayment installments on financial liabilities and the liquidity risk arising from derivatives.

There were also loan commitments under as yet unpaid €965 million (2022: €965 million) and €132 million (2022: €132 million) portions of the effective initial funds of Bayer-Pensionskasse VvaG and Rheinische Pensionskasse VVaG, respectively, which may result in further payments by Bayer AG in subsequent years. In 2022, Bayer-Pensionskasse and Rheinische Pensionskasse drew amounts with a nominal volume of €500 million and €57 million, respectively, from their effective initial funds as per the corresponding agreement. At the same time, the agreed commitment volume in the effective initial fund agreement between Bayer-Pensionskasse and Bayer AG was increased by €500 million.

The undiscounted, contractually agreed cash inflows/outflows (notional amounts) from financial instruments are shown in the following tables:

B 27.2/1

Maturity Analysis of Financial Instruments

€ million	Dec. 31, 2023 Carrying amount	2024	2025	2026	2027	2028	after 2028
							Interest and repayment
Financial liabilities							
Bonds	40,852	4,920	5,392	4,655	2,633	4,555	32,691
Liabilities to banks	699	589	6	131	–	–	–
Remaining liabilities	3,153	2,296	308	208	146	106	399
Trade accounts payable	7,456	7,414	26	5	3	2	8
Other liabilities							
Accrued interest on liabilities	334	334	–	–	–	–	–
Remaining liabilities	1,628	733	284	205	267	287	222
Liabilities from derivatives	317	348	(1)	–	–	–	–
With gross settlement		172	–	–	–	–	–
Cash outflows		12,120	–	–	–	–	–
Cash inflows		(11,948)	–	–	–	–	–
With net settlement		176	(1)	–	–	–	–
Cash inflows/(outflows)		176	(1)	–	–	–	–
Loan commitments	–	1,097	–	–	–	–	–
Financial guarantees	–	25	–	–	–	–	–
Total	54,439	17,756	6,015	5,204	3,049	4,950	33,320

B 27.2/2

Maturity Analysis of Financial Instruments (Previous Year)

€ million	Dec. 31, 2022 Carrying amount	2023	2024	2025	2026	2027	after 2027
							Interest and repayment
Financial liabilities							
Bonds	36,602	4,658	4,813	4,938	2,432	2,150	27,931
Liabilities to banks	3,399	3,410	3	–	–	–	–
Remaining liabilities	1,376	470	277	191	144	103	428
Trade accounts payable	7,545	7,490	47	2	1	1	8
Other liabilities							
Accrued interest on liabilities	272	272	–	–	–	–	–
Remaining liabilities	3,581	2,636	386	575	229	95	37
Liabilities from derivatives	347	318	(9)	1	1	1	–
With gross settlement		183	(4)	–	–	–	–
Cash outflows		9,936	1	–	–	–	–
Cash inflows		(9,753)	(5)	–	–	–	–
With net settlement		135	(5)	1	1	1	–
Cash inflows/(outflows)		135	(5)	1	1	1	–
Loan commitments	–	1,108	–	–	–	–	–
Financial guarantees	–	25	–	–	–	–	–
Total	53,122	20,387	5,517	5,707	2,807	2,350	28,404

27.3 Information on derivatives

Asset and liability fair values and future cash flows are exposed to currency, interest-rate and commodity-price risks. Derivatives are used to reduce this risk. In some cases, they are designated as hedging instruments in a hedge accounting relationship.

Currency risks

Foreign currency receivables and liabilities are hedged using foreign exchange derivatives without the existence of a hedge accounting relationship.

Fluctuations in future cash flows resulting from forecasted foreign currency transactions and procurement activities are avoided partly through derivatives contracts, most of which are designated as cash flow hedges.

Interest-rate risk

The interest-rate risks from fixed-interest borrowings are managed in part using interest-rate swaps. Two interest-rate swaps totaling US$500 million were designated as fair value hedges for the US$2.5 billion bond issued in 2018 and maturing in 2025. The carrying amount of this bond as of December 31, 2023, was €2,258 million (2022: €2,336 million). Hedge-related fair value adjustments of €7 million (2022: €18 million) reduced the carrying amount to €2,251 million (2022: €2,318 million). No material ineffective portions of these hedges required recognition through profit or loss.

Interest-rate risks in connection with the issuance of new bonds were partially hedged through interest-rate derivatives designated as cash flow hedges. The fair values of these derivatives as of the issuance date will be amortized from reserves for cash flow hedges into interest income and expense over the term of the bonds.

Commodity-price risks

Hedging contracts are also used to partly reduce exposure to fluctuations in future cash inflows and outflows resulting from price changes on procurement and selling markets for seeds and energy. Most of these contracts are designated as cash flow hedges.

Hedging of obligations under stock-based employee compensation programs (Aspire)

A portion of the obligations to make stock-based payments to employees was hedged against share price fluctuations using derivatives contracts that were settled in cash at maturity. These derivatives were designated as cash flow hedges.

Further information on cash flow hedges

Other comprehensive income from cash flow hedges decreased in 2023 by €162 million (2022: by €181 million) due to changes in the fair values of derivatives. Total changes of €12 million in the fair values of derivatives were recognized as expense in 2023 (2022: €463 million) through profit or loss.

The following table shows changes in reserves for cash flow hedges (before taxes) in equity, broken down by risk category:

B 27.3/1

Changes in Reserves for Cash Flow Hedges (Before Taxes)

€ million	Currency hedging of forecasted transactions	Interest-rate hedging of forecasted transactions	Commodity price hedging	Hedging of stock-based employee compensation programs	Total
January 1, 2022	**(149)**	**147**	**34**	**(19)**	**13**
Changes in fair values	(341)	32	96	32	(181)
Reclassified to profit or loss	521	(41)	1	(18)	463
Reclassified to inventories	–	–	(123)	–	(123)
December 31, 2022	**31**	**138**	**8**	**(5)**	**172**
Changes in fair values	(34)	(33)	(65)	(30)	(162)
Reclassified to profit or loss	9	(33)	1	35	12
Reclassified to inventories	–	–	25	–	25
December 31, 2023	**6**	**72**	**(31)**	**–**	**47**

No material ineffective portions of these hedges required recognition through profit or loss in 2023 or 2022.

The fair values of the main derivatives in the major categories as of year-end are indicated in the following table together with the included volumes of hedges:

B 27.3/2

Fair Values of Derivatives

	Dec. 31, 2022			Dec. 31, 2023		
		Fair value			Fair value	
€ million	Notional amount[1]	Positive	Negative	Notional amount[1]	Positive	Negative
Currency hedging of recorded transactions[2, 3]	**13,352**	**61**	**(171)**	**16,048**	**39**	**(209)**
Forward exchange contracts	13,352	61	(171)	16,048	39	(209)
Currency hedging of forecasted transactions[2, 4]	**5,628**	**131**	**(91)**	**6,456**	**81**	**(75)**
Forward exchange contracts	5,012	119	(85)	4,343	65	(63)
of which cash flow hedges	4,567	107	(75)	3,683	57	(48)
Currency options	616	12	(6)	2,113	16	(12)
of which cash flow hedges	587	12	(6)	2,113	16	(12)
Interest-rate hedging of recorded transactions[2, 3]	**468**	**–**	**(19)**	**454**	**–**	**(8)**
Interest-rate swaps	468	–	(19)	454	–	(8)
of which fair value hedges	468	–	(19)	452	–	(8)
Commodity price hedging[2, 4]	**1,094**	**17**	**(16)**	**1,065**	**15**	**(14)**
Forward commodity contracts	1,088	16	(16)	1,035	11	(14)
of which cash flow hedges	807	7	(6)	857	8	(6)
Commodity option contracts	6	1	–	30	4	–
Hedging of stock-based compensation programs[2, 4]	**143**	**–**	**(31)**	**–**	**–**	**–**
Forward share transactions	143	–	(31)	–	–	–
of which cash flow hedges	143	–	(31)	–	–	–
Total	**20,685**	**209**	**(328)**	**24,023**	**135**	**(306)**
of which current derivatives	19,897	197	(317)	23,672	131	(303)
for currency hedging	18,744	180	(258)	22,323	116	(281)
for interest-rate hedging[5]	–	–	(13)	454	–	(8)
for commodity price hedging	1,010	17	(15)	895	15	(14)
for hedging of stock-based compensation programs	143	–	(31)	–	–	–

[1] The notional amount is reported as gross volume, which also contains economically closed hedges.
[2] Derivatives with positive fair values are recognized under “Other financial assets” in the statement of financial position.
[3] Derivatives with negative fair values are recognized under “Financial liabilities” in the statement of financial position.
[4] Derivatives with negative fair values are recognized under “Other liabilities” in the statement of financial position.
[5] The portion of the fair value of long-term interest-rate swaps that relates to short-term interest payments is reported as current.

The hedging rates for the material currency pairs of the currency hedging derivatives existing at year-end that qualified for hedge accounting were as follows:

B 27.3/3

Hedging Rates of Derivatives – Hedge Accounting

	Dec. 31, 2022	Dec. 31, 2023
	Short-term derivatives	Short-term derivatives
	Average hedging rate	Average hedging rate
Currency hedging of forecasted transactions		
Forward exchange contracts – cash flow hedges		
EUR/BRL	6.04	5.67
EUR/CNH	7.23	7.63
EUR/JPY	136.71	146.25

28. Leases

The accounting policy options exercised with respect to leases are outlined in Note [3].

Lease contracts in which Bayer is the lessee mainly pertain to real estate, machinery, equipment or vehicles. Lease contracts are negotiated individually and each contain different arrangements on extension, termination or purchase options, for example.

Land and building leases in which Bayer is the lessee have average terms of 8.1 years (2022: 7.8 years). In many cases, the payments agreed under these leases are adjusted annually based on the development of the consumer price index for the respective country. Building leases generally contain clauses that prohibit subleasing except with the consent of the lessor. Leases of assets other than land or buildings have average terms of 5.8 years (2022: 6.8 years).

Like in the previous year, approximately half of all contracts (excluding vehicle leases) contain an option for Bayer as lessee to terminate the lease on a date specified in the contract. As in the prior year, roughly half of all contracts with a fixed minimum term (excluding vehicle leases) grant Bayer as lessee an extension option. Vehicle leases generally contain a right of early return and an extension option.

The following right-of-use assets are recognized under property, plant and equipment:

B 28/1

Right-of-Use Assets

€ million	Dec. 31, 2022	Dec. 31, 2023
Land and buildings	861	829
Investment property	8	–
Plant installations and machinery	87	89
Furniture, fixtures and other equipment	224	232
Construction in progress and advance payments	45	5
Total	**1,225**	**1,155**

Additions to right-of-use assets in 2023 amounted to €539 million (2022: €557 million).

The maturities of the outstanding lease payments were as follows:

B 28/2

Maturities of Lease Payments

€ million	Dec. 31, 2022	Dec. 31, 2023
Maturing within 1 year	330	357
Maturing in 1–5 years	711	760
Maturing after 5 years	428	399
Total	**1,469**	**1,516**

The depreciation of right-of-use assets in 2023 pertained to the following asset groups:

B 28/3

Depreciation of Right-of-Use Assets

€ million	2022	2023
Land and buildings	220	219
Plant installations and machinery	28	29
Furniture, fixtures and other equipment	117	129
Total	**365**	**377**

In addition, the following amounts were recognized in the income statement in 2023 in connection with lease contracts in which Bayer was the lessee:

B 28/4

Income Statement Impact of Leases

€ million	2022	2023
Interest expense for the unwinding of the discount on lease liabilities	(62)	(72)
Expenses for short-term leases with terms longer than one month and up to 12 months	(428)	(444)
Expenses for leases with low-value underlying assets (excluding short-term leases)	(3)	(3)
Expenses for variable lease payments not included in the measurement of the lease liability	(16)	(14)
Income from subleasing of right-of-use assets	5	4
Total	**(504)**	**(529)**

Cash outflows related to lessee activities in 2023 amounted to €900 million (2022: €861 million). Unrecognized liabilities of €39 million existed as of December 31, 2023, for short-term leases that had not yet commenced (December 31, 2022: €33 million). Leases signed but not yet commenced as of December 31, 2023, (other than short-term leases) did not exist (2022: €4 million).

29. Contingent liabilities and other financial commitments

Contingent liabilities

Contingent liabilities as of December 31, 2023, amounted to €6,850 million (December 31, 2022: €5,563 million) and primarily related to tort, tax or labor law and other matters in countries including the United States, Germany and Brazil. Both the assessment of the contingent liabilities and the assessment of the probability of the outflow of resources are subject to a high degree of uncertainty.

Other financial commitments

The other financial commitments were as follows:

B 29/1

Other Financial Commitments

€ million	Dec. 31, 2022	Dec. 31, 2023
Commitments under purchase agreements for property, plant and equipment	976	807
Contractual obligation to acquire intangible assets	174	184
Capital contribution commitments	85	243
Unpaid portion of the effective initial fund	1,097	1,097
Potential payment obligations under collaboration agreements and contingent payments from acquisitions that do not constitute business combinations	3,458	3,576
Revenue-based milestone payment commitments	2,971	3,207
Total	**8,761**	**9,114**

The expected maturities of payment obligations under collaboration agreements and revenue-based milestone payment commitments are as follows:

B 29/2

Maturities of Other Financial Liabilities

	Potential payment obligations under collaboration agreements and contingent payments from acquisitions that do not constitute business combinations		Revenue-based milestone payment commitments	
€ million	2022	2023	2022	2023
Maturing within 1 year	159	354	41	70
Maturing in 1–5 years	461	801	648	785
Maturing after 5 years	2,838	2,421	2,282	2,352
Total	**3,458**	**3,576**	**2,971**	**3,207**

The Bayer Group has entered into cooperation agreements with third parties under which it has agreed to fund various projects or has assumed other payment obligations based on the achievement of certain milestones or other specific conditions. The amounts shown represent the maximum payments to be made, and it is unlikely that they will all fall due. Since the achievement of the conditions for payment is highly uncertain, both the amounts and the dates of the actual payments may vary considerably from those stated in the table.

30. Legal risks

As a global company with extensive business activities, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, anticorruption, patent disputes, tax assessments and environmental matters. The outcome of any current or future proceedings cannot normally be predicted. It is therefore possible that legal or regulatory judgments or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers’ compensation payments and could significantly affect our sales and earnings. The legal proceedings referred to below do not represent an exhaustive list of all legal proceedings, but such legal proceedings we currently consider to be material.

Product-related litigation

Essure™: In the United States, a large number of lawsuits by users of Essure™, a medical device offering permanent birth control with a nonsurgical procedure, have been served upon Bayer. Plaintiffs allege personal injuries from the use of Essure™, including hysterectomy, perforation, pain, bleeding, weight gain, nickel sensitivity, depression and unwanted pregnancy, and seek compensatory and punitive damages. Almost all of the US claims have been settled. The remaining provision for settlements and legal fees amounts to approximately US$65 million (€60 million) as of January 31, 2024. At the same time, we continue to support the safety and efficacy of the Essure™ device and are prepared to vigorously defend it in litigation where no amicable resolution can be achieved.

As of January 31, 2024, two Canadian lawsuits relating to Essure™ seeking class action certification had been served upon Bayer. One of the proposed class actions has been certified. In addition, approximately 170 single-plaintiff claims have been served upon Bayer. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

Class actions over neonicotinoids in Canada: Proposed class actions against Bayer have been filed in Quebec and Ontario (Canada) concerning crop protection products containing the active substances imidacloprid and clothianidin (neonicotinoids). The plaintiffs are honey producers, who have filed a proposed nationwide class action in Ontario and a Quebec-only class action in Quebec. The plaintiffs are claiming for compensatory damages and punitive damages and allege Bayer and another crop protection company were negligent in the design, development, marketing and sale of neonicotinoid pesticides. The proposed Ontario class action is in a very early procedural phase. In Quebec, a court certified a class proposed by plaintiffs in 2018. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

Roundup™ (glyphosate): A large number of lawsuits from plaintiffs claiming to have been exposed to glyphosate-based products manufactured by Bayer's subsidiary Monsanto Company ("Monsanto") have been served upon Monsanto in the United States. Glyphosate is the active ingredient contained in a number of Monsanto's herbicides, including Roundup™-branded products. Plaintiffs allege personal injuries resulting from exposure to those products, including non-Hodgkin lymphoma (NHL) and multiple myeloma, and are seeking compensatory and punitive damages. The plaintiffs are claiming, inter alia, that the glyphosate-based herbicide products are defective and that Monsanto knew, or should have known, of the risks allegedly associated with such products and failed to adequately warn its users. Additional lawsuits are anticipated. The majority of plaintiffs have brought actions in state courts in Missouri and California.

As of January 31, 2024, Monsanto had reached settlements and/or was close to settling in a substantial number of claims. Of the approximately 167,000 claims in total, approximately 113,000 have been settled or are not eligible for various reasons.

As of January 31, 2024, there have been 19 Roundup™ trials concluded before both federal and state courts in California, Missouri, Oregon and Pennsylvania. In 10 of those trials, the juries reached verdicts in favor of Monsanto. In the other nine trials, the plaintiffs were awarded compensatory damages and a multiple thereof in punitive damages. A few of these cases have been settled later, but in most cases Monsanto has filed post-trial motions or appealed the jury verdicts, or plans to do so. In our opinion, these verdicts are based on numerous evidentiary and legal errors, as well as unconstitutionally excessive damage awards. Bayer has two appeals pending in federal court on preemption grounds: Carson, pending in the 11th Circuit Federal Court of Appeals, and Schaffner, pending in the Third Circuit Federal Court of Appeals.

As of December 31, 2023, Bayer's provision for the glyphosate litigation totaled US$6.3 billion (€5.7 billion). Bayer continues to believe there is no reason for safety concerns in connection with the products mentioned above.

As of January 31, 2024, a total of 32 Canadian lawsuits relating to Roundup™ had been served upon Bayer, including 11 seeking class action certification.

Bayer believes it has meritorious defenses and intends to defend the safety of glyphosate and our glyphosate-based formulations vigorously.

Dicamba: In 2016, Bader Peach Farms filed a lawsuit against Monsanto and BASF SE ("BASF") in Missouri state court. Subsequently, lawsuits from approximately 250 plaintiffs were filed in both US state and federal courts in Missouri, Tennessee and Texas alleging crop damage claims against Monsanto, primarily for soybeans. The general claims are that off-target movement from the dicamba herbicide and/or the Xtend™ system has damaged non-dicamba-tolerant soybean and other crops. The Bader Peach Farms case was settled in 2022 without admission of liability.

Bayer continues to receive new dicamba-related claims that could be potential future lawsuits. The most significant of those was a claim by Frey Farms, which is a producer of watermelons, pumpkins and other vegetables. In April 2023, the parties entered into an agreement to resolve all of the claims of Frey Farms. With respect to all of the other dicamba cases except for Frey Farms and a small number of newly filed lawsuits and claims, Monsanto has entered into a mass tort settlement agreement. The settlement will provide for the payment of substantiated claims by soybean growers in crop years 2015 to 2020 who can demonstrate a yield loss due to the application of dicamba products to an Xtend™ crop. That portion of the settlement is capped at US$300 million. The settlement also provides for additional funds of up to US$100 million to pay for dicamba damage claims made by growers of other, non-soybean crops, as well as attorneys' fees, litigation costs and settlement administration costs. The settlement claims administrator is currently in the process of determining claim eligibility and the amounts to be awarded to eligible claimants. Taking into account the payments already made, the remaining provision for settlements amounts to approximately US$70 million (€63 million) as of December 31, 2023.

Insurance against statutory product liability claims

In connection with the above-mentioned product-related litigations, Bayer is insured against statutory product liability claims to the extent customary in the respective industries and has, based on the information currently available, taken corresponding accounting measures. However, the accounting measures relating to, in particular, Essure™ and Roundup™ (glyphosate) claims exceed the available insurance coverage.

Patent disputes

Bollgard II RR Flex™/Intacta RR2 PRO™: In 2019, the Cotton Producers Association of the State of Mato Grosso (AMPA) in Brazil filed a patent invalidity action in federal court seeking to invalidate four of Bayer's patents covering Bollgard II RR Flex™, a cotton technology owned by Bayer. In 2020, the Brazilian patent office, in the court proceedings, acknowledged the validity of all four challenged patents. Two of the patents are also being challenged in administrative nullity proceedings before the Brazilian patent office. One of the patents, the promoter patent which expired in 2022, is also at issue in a patent invalidation action filed in Brazilian federal court by the Soybean Growers Association from the State of Mato Grosso (Aprosoja/MT) in 2017 regarding the Intacta RR2 PRO™ soybean technology. In addition to the patent invalidity claims, both lawsuits seek a refund of paid royalties. Both lawsuits were filed as collective actions and are proceeding before the same federal judge. Bayer's Intacta RR2 PRO™ soybean technology is presently protected by four patents.

In addition to the action filed in 2017 regarding the promoter patent, the Soybean Growers Association from the State of Mato Grosso (Aprosoja/MT) is also seeking a correction of the expiration dates of all three patents protecting Bayer's Intacta RR2 PRO™ soybean technology, including the now expired promoter patent, in a separate action claiming that the two other patents had already expired and is additionally seeking a corresponding refund of paid royalties and reduction of ongoing royalty payments. In 2021, the Brazilian federal court decided to grant the requests by further soybean grower associations and the Cotton Producers Association of the State of Mato Grosso (AMPA) to be admitted as co-plaintiffs to this lawsuit. One of the two patents, the promoter patent, also covers Bollgard II RR Flex™ and is at issue in the disputes with AMPA. Aprosoja/MT argues that the term of the patents had been determined unconstitutionally. In 2021, a decision by the Brazilian Supreme Court – that the term of patents previously determined to be a minimum of 10 years from the patent being granted is unconstitutional, and that this term shall instead be set at 20 years from the filing of the patent application – became final. This will apply retroactively to certain patents, thereby shortening their term. However, Bayer believes that neither Aprosoja/MT nor other associations are entitled to a refund of paid royalties or to a reduction of ongoing royalty payments.

MON 87429/MON 94313: In 2022, Corteva Agriscience LLC ("Corteva") filed a complaint in a US federal court against Bayer. Corteva alleges infringement of three patents held by Corteva by Bayer's herbicide tolerance technologies MON 87429 (corn) and MON 94313 (soybeans), respectively. However, Bayer asserts that its technologies do not infringe any valid patent claim of Corteva and that all three patents of Corteva are invalid.

Roundup Ready™ Soybean, Event GTS40-3-2
In October 2023, Bayer's subsidiaries Monsanto Company and Monsanto do Brasil were served with an action filed in the Brazilian Superior Court of Justice by the rural unions of Sertão, Passo Fundo and Santiago in the State of Rio Grande do Sul (RS). The action challenges a 2019 decision by the court that had confirmed the protection of Roundup Ready™ soybeans under Brazilian patent law independent from plant variety protection and denied claims for a refund of paid royalties.

Bayer believes it has meritorious defenses in the above patent disputes and intends to defend itself vigorously.

Further legal proceedings

BASF arbitration: In 2019, Bayer was served with a request for arbitration by BASF. BASF alleged indemnification claims under asset purchase agreements related to the divestment of certain Crop Science businesses to BASF. BASF alleged that particular cost items, including certain personnel costs, had not been appropriately disclosed and allocated to some of the divested businesses. In 2022, the arbitral tribunal dismissed BASF's claims in their entirety. In April 2023, the Higher Regional Court of Frankfurt am Main (Germany) rejected BASF's motion to set aside the award. However, the court found that the arbitral award was technically invalid because it did not comply with a German procedural rule regarding the signatures of the tribunal members. According to the court decision, the original arbitration proceedings have not yet come to an end and still have to be concluded by a valid arbitration award that fully complies with the procedural rules. Bayer disagrees with the court decision. Both parties have appealed.

Newark Bay environmental matters: In the United States, Bayer is a backup indemnitor for certain environmental liabilities in the Lower Passaic River and/or the Newark Bay Complex which are being satisfied by an unrelated company. Bayer is currently unable to determine the extent of its potential future liability for this matter.

Mine permit Idaho: In 2019, the United States Bureau of Land Management ("BLM") granted a permit to Bayer's subsidiary P4 Production, LLC, for a new phosphate mine in Idaho. Phosphorus is needed for glyphosate, which is contained in a number of Bayer's herbicides, including Roundup™ agricultural herbicides. In 2021, three non-governmental organizations challenged the permit in the United States District Court for the District of Idaho. P4 Production joined the proceeding as an intervenor. In June 2023, the court vacated the permit. Bayer has prepared a new mine permit application and is evaluating other phosphate ore mining opportunities. BLM has formally initiated its evaluation of P4's application. We and the plaintiffs have appealed the court's decisions.

Asbestos: In many cases, plaintiffs allege that Bayer and co-defendants employed third parties on their sites in past decades without providing them with sufficient warnings or protection against the known dangers of asbestos. Additionally, a Bayer affiliate in the United States is the legal successor to companies that sold asbestos products until 1976. Union Carbide has agreed to indemnify Bayer for this liability. Similarly, Monsanto faces numerous claims based on exposure to asbestos at Monsanto premises without adequate warnings or protection and based on the manufacture and sale of asbestos-containing products. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

PCBs: Bayer's subsidiary Monsanto has been named in lawsuits brought by various governmental entities in the United States claiming that Monsanto, Pharmacia and Solutia, collectively as a manufacturer of PCBs, should be responsible for a variety of damages due to PCBs in the environment, including bodies of water, regardless of how PCBs came to be located there. PCBs are chemicals that were widely used for various purposes until the manufacture of PCBs was prohibited by the EPA in the United States in 1979.

In 2020, Bayer entered into a class settlement, valued at approximately US$650 million, to settle claims of approximately 2,500 municipal entities. In 2022, the court issued its final approval of the class settlement. There were approximately 84 opt-outs of the class settlement, 62 of which have now filed lawsuits: California cities, counties and municipalities (City of Los Angeles, County of San Mateo, County of Marin and County of Contra Costa), Illinois (City of Chicago, City of Evanston and City of East St. Louis), Washington (City of Seattle) and Wisconsin (City of Milwaukee).

Currently, there are five pending state attorney general cases: Delaware, Illinois, Maryland, New Jersey and Vermont. Prior cases filed or threatened by Washington D.C., Washington, New Mexico, Ohio, Pennsylvania, New Hampshire and Virginia were settled for a combined total of approximately US$456 million. The Company also settled a pending matter with the State of Oregon for US$698 million, reflecting unique circumstances in that State.

The Vermont Attorney General case is different from the others in scope. In June 2023, the Vermont Attorney General filed suit in state court alleging claims for damages related to PCB contamination of the state's environment and its school buildings. The same month, a second and similar complaint (Addison Central School District) was filed in federal court (District of Vermont) by private lawyers representing 93 Vermont school districts alleging PCB contamination in school buildings. In addition, there is a pending case in Vermont on behalf of the Burlington School District and related personal injury claims (see below).

Monsanto also faces numerous lawsuits claiming personal injury due to use of and exposure to PCB products in school buildings. One group of cases with approximately 200 plaintiffs claims a wide variety of personal injuries allegedly due to PCBs in the building products of a school (Sky Valley Education Center) in King County, Washington. As of January 31, 2024, nine trials had been completed in these matters, involving a total of 65 plaintiffs. 20 of these plaintiffs were not successful as the juries decided in favor of Monsanto or a mistrial was declared after the jury was unable to reach a decision. The other 45 plaintiffs were awarded a total of approximately US$300 million in compensatory and a multiple thereof in punitive damages. The undisputed evidence in these cases does not, in Bayer's opinion, support the conclusions that plaintiffs were exposed to unsafe levels of PCBs or that any exposure could have caused their claimed injuries. Each of the adverse verdicts are in different stages of post-trial motions and appeal due to numerous significant trial errors.

In September 2023, a putative class action lawsuit (Neddo) was filed in the District of Vermont by a mother on behalf of her three children who attended a local school. She alleges they are at increased risk of cancer from PCB exposure and seeks the cost of medical monitoring. The complaint identifies 26 allegedly contaminated schools, and the proposed class is defined as all individuals who attended or worked at one of the contaminated schools. There are also five pending personal injury cases related to the Burlington, Vermont, high school.

There are additional personal injury cases stemming from non-school PCB exposure. In August 2023, nine cases were filed in Massachusetts state court involving 16 plaintiffs who allege various personal injuries from alleged exposure to PCBs in or near a former General Electric landfill. A personal injury and wrongful death action was filed by 169 current or former employees at Clark County Government Center in Nevada. These plaintiffs allege that PCBs contaminated the Center through prior operations by Union Pacific Railroad at the site. The Nevada action was dismissed by the court, and the plaintiffs have appealed. Lastly, there are four cases involving seven plaintiffs claiming injury due to exposure to PCBs near Monsanto's former Krummrich plant.

We believe that we also have meritorious defenses in these matters and intend to defend ourselves vigorously.

To recover costs associated with the PCB-related litigation, Bayer filed a complaint in August 2022 in the Circuit Court of St. Louis County for the State of Missouri to enforce its rights under certain indemnity contracts. Under these contracts, the companies who purchased PCBs for use in their products agreed to indemnify Monsanto for PCB-related litigation costs, including settlements.

Shareholder litigation concerning Monsanto acquisition: In Germany and the United States, investors have filed lawsuits claiming damages suffered due to the drop in Bayer AG's share price. Plaintiffs allege that Bayer AG's capital market communication in connection with the acquisition of Monsanto was flawed and that the information provided by Bayer on the risks, in particular regarding glyphosate product liability claims in the United States, was insufficient. In Germany, approximately 30 claims by approximately 340 plaintiffs had been filed and served upon Bayer as of December 31, 2023. In 2022, the Cologne Regional Court initiated a model case proceeding in accordance with the Capital Markets Model Case Act. This does not include a decision on the merits of the matter. In the parallel proceeding in the United States, the United States District Court for the Northern District of California, San Francisco Division, certified a class in May 2023. Bayer believes it has duly complied with its capital markets law obligations at all times in connection with the acquisition of Monsanto and its disclosures concerning glyphosate product liability claims and intends to defend itself vigorously against the claims in all shareholder lawsuits.

Notes to the Statements of Cash Flows

The statement of cash flows shows how cash inflows and outflows during the fiscal year affected the cash and cash equivalents of the Bayer Group.

Of the cash and cash equivalents, there were no significant sums that had limited availability due to foreign exchange restrictions in 2023 or 2022.

The cash flows reported by consolidated companies outside the eurozone are translated at average monthly exchange rates. Cash and cash equivalents are translated at closing rates. The “Change in cash and cash equivalents due to exchange rate movements” is reported in a separate line item. For subsidiaries with a hyperinflationary functional currency, currencies are always translated at the respective closing rates.

31. Net cash provided by (used in) operating, investing and financing activities

Net operating cash flow in 2023 amounted to €5,117 million (2022: €7,093 million). Payments to resolve proceedings in the litigations surrounding dicamba, Essure™ and, in particular, PCBs and glyphosate resulted in a net outflow of €2,089 million (2022: €1,165 million). That total comprised payments resulting from agreements as well as court judgments. Total income taxes paid in 2023 amounted to €1,770 million (2022: €2,125 million). Net operating cash flow included payments from banks of €411 million (2022: €0 million) from the transfer of trade receivables that were not yet due or settled by customers as of December 31, 2023.

Net cash used in investing activities in 2023 amounted to €3,517 million (2022: €2,381 million). This figure included €472 million in income taxes relating to divestments, of which €361 million (2022: €91 million) was attributable to the sale of the Crop Science Division’s Environmental Science Professional business and €111 million (2022: €0 million) to the divestment of the men’s health product Nebido™. These amounts were therefore accounted for within investing activities under divestments. Cash outflows for property, plant and equipment and intangible assets amounted to €2,751 million (2022: €2,949 million). Cash inflows from the sale of property, plant and equipment and other assets amounted to €215 million (2022: €1,130 million). These inflows resulted partly from the sale of rights to our dermatological products A+D™, Solarcaine™, Cortate™ and Complex 15™ (€62 million) and to our hormone replacement products Progynova™ and Cyclo-Progynova™ (€68 million). Outflows for noncurrent financial assets amounted to €332 million (2022: €1,182 million). Of the high prior-year figure, €557 million was attributable to Bayer-Pensionskasse VVaG and Rheinische Pensionskasse VVaG drawing on their effective initial funds. Cash outflows for acquisitions less acquired cash amounted to €662 million (2022: €89 million) and were largely attributable to milestone payments in connection with the acquisition of US-based Asklepios BioPharmaceutical, Inc. (AskBio) and Vividion Therapeutics, Inc., and Blackford Analysis Ltd., United Kingdom. The net cash outflow for current financial assets came to €113 million (2022: €1,828 million) and largely pertained to investments in money market funds due to increased liquidity as a result of newly placed bonds.

There was a net cash outflow of €679 million for financing activities (2022: €4,220 million). This figure included net borrowings of €3,253 million (2022: net loan repayments of €974 million). Net interest payments increased to €1,506 million (2022: €1,251 million). The Bayer Group paid out €2,379 million in dividends (2022: €1,985 million), of which €2,358 million (2022: €1,965 million) to Bayer AG stockholders.

The changes in liabilities arising from financing activities in 2023 are presented in the following table:

B 31/1

Liabilities from Financing Activities

€ million	Jan. 1, 2023	Cash flows[1]	Noncash changes: Acquisitions/ divestments	Currency/ other effects	New contracts IFRS 16	Fair value changes[2]	Dec. 31, 2023
Bonds and notes	36,602	4,910	–	(713)	–	53	40,852
Liabilities to banks	3,484	(2,569)	–	(131)	–	–	784
Lease liabilities	1,234	(446)	–	(34)	412	72	1,238
Receivables/liabilities from derivatives	112	(171)	–	(1)	–	234	174
Other financial liabilities	142	1,384	–	298	–	91	1,915
Total	**41,574**	**3,108**	**–**	**(581)**	**412**	**450**	**44,963**

[1] Including paid interest that results from the unwinding of the discount on the liabilities
[2] Including changes in the carrying amounts of liabilities measured at amortized cost using the effective-interest method

The changes in liabilities arising from financing activities in 2022 were as follows:

B 31/2

Liabilities from Financing Activities (Previous Year)

€ million	Jan. 1, 2022	Cash flows[1]	Noncash changes: Acquisitions/ divestments	Currency/ other effects	New contracts IFRS 16	Fair value changes[2]	Dec. 31, 2022
Bonds and notes	37,593	(2,070)	–	1,067	–	12	36,602
Liabilities to banks	773	2,715	–	(4)	–	–	3,484
Lease liabilities	1,165	(412)	(10)	19	410	62	1,234
Receivables/liabilities from derivatives	(29)	(6)	–	(1)	–	148	112
Other financial liabilities	1,272	(1,291)	–	159	–	2	142
Total	**40,774**	**(1,064)**	**(10)**	**1,240**	**410**	**224**	**41,574**

[1] Including paid interest that results from the unwinding of the discount on the liabilities
[2] Including changes in the carrying amounts of liabilities measured at amortized cost using the effective-interest method

Other Information

32. Audit fees

Michael Mehren signed the Independent Auditor’s Report for the first time for the year ended December 31, 2019, and Andreas Wermelt for the first time for the year ended December 31, 2022. Michael Mehren is the responsible auditor.

The following fees for the services of the worldwide network of Deloitte or Deloitte GmbH Wirtschaftsprüfungsgesellschaft (Deloitte GmbH WPG) were recognized as expenses:

B 32/1

Audit Fees

	Deloitte		of which Deloitte GmbH WPG	
€ million	2022	2023	2022	2023
Financial statements auditing	15	16	7	7
Audit-related services and other audit work	3	2	1	1
Tax consultancy	–	–	–	–
Other services	–	–	–	–
Total	**18**	**18**	**8**	**8**

The fees for the financial statements audit services of Deloitte GmbH Wirtschaftsprüfungsgesellschaft primarily comprised those for the audits of the consolidated financial statements of the Bayer Group and of the financial statements of Bayer AG and its subsidiaries. The audit-related services and other audit work performed by Deloitte GmbH Wirtschaftsprüfungsgesellschaft in 2023 mainly concerned the issuance of comfort letters for capital market transactions as well as miscellaneous auditing services.

33. Related parties

Related parties as defined in IAS 24 are those legal entities, natural persons and close members of their family that are able to exert influence on Bayer AG and its subsidiaries or over which Bayer AG or its subsidiaries exercise control or joint control or have a significant influence. They include, in particular, nonconsolidated subsidiaries accounted for at fair value, joint ventures and associates accounted for at fair value or using the equity method, and post-employment benefit plans. Related parties also include the corporate officers of Bayer AG whose compensation is reported in Note [34] and in the Compensation Report, which is available at www.bayer.com/cpr.

B 33/1

Related Parties

	Sales of goods and services		Purchase of goods and services		Receivables		Liabilities	
€ million	2022	2023	2022	2023	2022	2023	2022	2023
Nonconsolidated subsidiaries	56	50	1	1	102	122	95	26
Joint ventures	8	12	–	–	7	11	–	–
Associates	–	1	–	–	8	41	2	11
Post-employment benefit plans	–	–	–	–	1,347	1,421	119	119

Intercompany profits and losses for companies accounted for in the consolidated financial statements using the equity method were immaterial in 2023 and 2022.

Bayer AG has undertaken to provide jouissance right capital (Genussrechtskapital) in the form of an interest-bearing loan with a nominal volume of €150 million (2022: €150 million) for Bayer-Pensionskasse VVaG. The entire amount remained drawn as of December 31, 2023. The carrying amount was €150 million (2022: €142 million). The loan capital provided to Bayer-Pensionskasse VVaG for its effective initial fund had a nominal volume of €1,135 million as of December 31, 2023 (December 31, 2022: €1,135 million). The carrying amount was €1,140 million (2022: €1,102 million). The outstanding receivables, comprised of different tranches, are each subject to a five-year interest-rate adjustment mechanism. Interest income of €33 million was recognized in 2023 (2022: €11 million) along with gains of €46 million (2022: €85 million) due to fair value changes. An amount of €362 million (2022: €89 million) was reimbursed by pension vehicles, in part for pension payments made by Group companies in 2023.

No material impairment losses on receivables from related parties were recognized in 2023 or 2022.

34. Total compensation of the Board of Management and the Supervisory Board, advances and loans

In 2023, the compensation of the Board of Management and the Supervisory Board according to IFRS totaled €24,604 thousand (2022: €32,376 thousand). The compensation of the Supervisory Board amounted to €4,970 thousand (2022: €5,007 thousand) and was comprised entirely of short-term non-performance-related components.

The table below shows the individual components of Board of Management compensation in accordance with IFRS.

B 34/1

Board of Management Compensation According to IFRS

€ thousand	2022	2023
Base compensation	6,335	6,988
Fringe benefits	1,296	5,365
Pension installment	732	1,407
Total short-term non-performance-related compensation	**8,363**	**13,760**
Short-term performance-related cash compensation	7,280	752
Total short-term compensation	**15,643**	**14,512**
Stock-based compensation (Aspire) earned in the respective year	8,909	3,950
Change in value of existing entitlements to stock-based compensation (Aspire)	533	(7,684)
Total stock-based compensation (long-term incentive)	**9,442**	**(3,734)**
Service cost for pension entitlements earned in the respective year	2,284	843
Total long-term compensation	**11,726**	**(2,891)**
Severance payments in connection with the termination of service contracts	–	8,013
Total compensation (IFRS)	**27,369**	**19,634**

In addition to the severance payments shown above, Werner Baumann and Sarena Lin have each been granted an indemnity payment as part of their post-contractual noncompete agreements. In connection with their compensation for the remaining term of their service contracts, they have both been conditionally granted a prorated allocation of the 2024 Aspire tranche (i.e., contingent on the Supervisory Board resolving to issue a 2024 tranche). With respect to the prorated allocations, Werner Baumann and Sarena Lin have been granted target amounts of 4/12 and 1/12, respectively, for the 2024 Aspire tranche. Sarena Lin has been granted 1/12 of the STI for 2024.

Total compensation of the Board of Management and Supervisory Board according to the German Commercial Code (HGB) amounted to €37,950 thousand (2022: €30,786 thousand), with the Board of Management accounting for €32,980 thousand (2022: €25,779 thousand) and the Supervisory Board for €4,970 thousand (2022: €5,007 thousand). The compensation of the Board of Management comprised short-term non-performance-related compensation of €13,760 thousand (2022: €8,363 thousand), short-term performance-related cash compensation of €752 thousand (2022: €7,280 thousand), long-term stock-based cash compensation (Aspire) of €14,711 thousand (2022: €10,136 thousand) and severance payments in connection with the termination of service contracts of €3,757 thousand. The compensation of the Supervisory Board comprised attendance fees of €350 thousand (2022: €435 thousand), compensation for committee duties of €940 thousand (2022: €900 thousand) and fixed compensation of €3,680 thousand (2022: €3,672 thousand).

Pension payments to former members of the Board of Management and their surviving dependents in 2023 amounted to €13,184 thousand (2022: €12,230 thousand). According to IFRS, the defined benefit obligation for former members of the Board of Management and their surviving dependents amounted to €190,662 thousand (2022: €164,428 thousand). There were no advances or loans to members of the Board of Management or the Supervisory Board outstanding as of December 31, 2023, or at any time during 2023 or 2022. No contingent liabilities were entered into for these individuals.

Further information on the compensation of the Board of Management and Supervisory Board is provided in the Compensation Report, which is publicly accessible at www.bayer.com/cpr.

Leverkusen, February 22, 2024
Bayer Aktiengesellschaft

The Board of Management

Bill Anderson	Wolfgang Nickl	Stefan Oelrich
Heike Prinz	Rodrigo Santos	Heiko Schipper

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Bayer Group, and the Combined Management Report includes a fair review of the development and performance of the business and the position of the Bayer Group and Bayer AG, together with a description of the principal opportunities and risks associated with the expected development of the Bayer Group and Bayer AG.

Leverkusen, February 22, 2024
Bayer Aktiengesellschaft

The Board of Management

Bill Anderson
Wolfgang Nickl
Stefan Oelrich

Heike Prinz
Rodrigo Santos
Heiko Schipper

Independent Auditor's Report

To Bayer Aktiengesellschaft, Leverkusen/Germany

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE COMBINED MANAGEMENT REPORT

Audit Opinions

We have audited the consolidated financial statements of Bayer Aktiengesellschaft, Leverkusen/Germany, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2023, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from January 1 to December 31, 2023, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report for the parent and the group of Bayer Aktiengesellschaft, Leverkusen/Germany, for the financial year from January 1 to December 31, 2023. In accordance with the German legal requirements, we have not audited the content of those parts of the combined management report set out in the appendix to the auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) German Commercial Code (HGB) and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at December 31, 2023 and of its financial performance for the financial year from January 1 to December 31, 2023, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of those parts of the combined management report set out in the appendix to the auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation (No 537/2014; referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISA). Our responsibilities under those requirements, principles and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In the following we present the key audit matters we have determined in the course of our audit:

1. Recoverability of goodwill and other intangible assets
2. Presentation of risks arising from product-related legal disputes

Our presentation of these key audit matters has been structured as follows:

a) description (including reference to corresponding information in the consolidated financial statements)
b) auditor's response

1. Recoverability of goodwill and other intangible assets

a) In the consolidated financial statements of Bayer Aktiengesellschaft, an amount of EUR 32,299 million (28% of the Group's total assets) is presented under the item of the statement of financial position "goodwill". "Other intangible assets" also include patents and technologies of EUR 10,696 million (9% of the Group's total assets), trademark rights of EUR 5,943 million (5% of the Group's total assets) and research and development projects of EUR 3,541 million (3% of the Group's total assets) as well as marketing and distribution rights, production and other rights and advance payments of EUR 3,183 million (3% of the Group's total assets). The Company allocates goodwill to the reporting segments within the Bayer Group. Regular impairment tests of goodwill and R&D projects as well as ad-hoc impairment tests of other intangible assets are carried out by comparing the respective carrying amounts with their respective recoverable amounts. Generally, the recoverable amount is determined on the basis of the fair value less costs to sell. Such determination is based on capital value-oriented methods as market values are usually unavailable for the individual strategic business entities. The fair value is calculated using discounted cash flow models based on the Bayer Group's medium-term planning prepared by the executive directors and extrapolated on the basis of assumptions regarding long-term growth rates. Discounting is based on the weighted average cost of capital of the respective cash-generating units concerned. The result of this valuation depends to a large extent on the estimates by the executive directors of the future cash flows of the respective cash-generating unit (usually the strategic business entity or product family) and the discount rate applied, and is therefore subject to significant uncertainty. Against this background and in view of the underlying complexity of the valuation models, this issue was of particular importance in the context of our audit.

   The statements made by the executive directors on the subject of goodwill and other intangible assets are contained in sections 3 and 14 of the notes to the consolidated financial statements.

b) As part of our audit, we reconstructed, among other matters, the methodology used to perform the impairment tests and assessed the calculation of the weighted cost of capital. We assured ourselves of the appropriateness of the future cash inflows used in the valuation by, among other things, a walkthrough and critical assessment of the underlying planning process. We also assessed the appropriateness of the future cash flows used in the valuation, in particular by comparing this information with the Company's medium-term planning and by checking selected planning assumptions against general and industry-specific market expectations. We intensively studied the parameters used to determine the discount rate applied and assessed the completeness and accuracy of the calculation scheme. In addition, due to the material significance of goodwill, we complementarily performed our own sensitivity analyses for the reportable segments (carrying amount in comparison to the recoverable amount). We also consulted internal specialists from the Valuation Services department on specific areas of the audit.

2. Presentation of risks arising from product-related legal disputes

a) Companies of the Bayer Group are involved in both court and out-of-court proceedings with public authorities, competitors and other parties. These proceedings give rise to legal risks, in particular in the areas of product liability, competition and anti-trust law, patent law, tax law and environmental protection.

Lawsuits seeking compensatory and punitive damages have been brought in the United States against Monsanto Company, St. Louis/U.S.A., (Monsanto), a subsidiary of Bayer Aktiengesellschaft, among others. In one of these litigation complexes, the plaintiffs allege that they were exposed to glyphosate-based products manufactured by Monsanto, and that the exposure to these products resulted in personal injuries. In addition, Monsanto has been named in lawsuits brought by various governmental entities in the United States, which claim that Monsanto and its predecessor companies, as manufacturers of PCBs, are responsible for a variety of damages due to PCBs in the environment, including in bodies of water. In the above-mentioned litigation complexes, Bayer has successively concluded settlement agreements of varying scope with some of the plaintiffs or plaintiffs' attorneys since 2020 to resolve parts of the litigations concerned. Monsanto is also facing several lawsuits alleging personal injury and property damage from the use of and exposure to PCB products.

Whether and to what extent it is necessary to recognize provisions to cover the risk resulting from one or more of the present legal disputes is determined to a large extent by estimates and discretionary assumptions of the executive directors. Against this background and in view of the monetary amount of the claims asserted, the above-mentioned product-related disputes of the Bayer Group were, in our opinion, of particular significance for the audit.

The statements made and explanations provided by the executive directors regarding the legal disputes mentioned above are contained in section 30 of the notes to the consolidated financial statements.

b) As part of our audit, we assessed, among other matters, the process established by the Company to recognize court and out-of-court proceedings, estimate their outcomes and appropriately present legal disputes in the statement of financial position. Moreover, we held regular discussions throughout the year with the Company's internal legal department in order to have current developments and reasons that led to the corresponding estimates regarding the expected outcome of the proceedings explained to us. We critically examined and assessed the respective explanations as well as the information and evidence received. We also checked the recognition and the measurement of the provisions for the settlement agreements already partially concluded as part of the significant litigation complexes by performing sample-based comparisons with the underlying settlement agreements. The evolution of the significant legal disputes, including estimations regarding the possible outcomes of the proceedings, was made available to us in writing by the Company. As at the reporting date, we furthermore obtained and critically assessed external attorney confirmations. Taking into account the estimations of the Company, we also critically assessed the assumptions underlying the provisions for expected defense costs and evaluated the plausibility of the provision amounts based on experience from similar proceedings in the past and other evidence.

Other Information

The executive directors and/or the supervisory board are responsible for the other information. The other information comprises

- // the report of the supervisory board,
- // the foreword to the compensation report,
- // the compensation report pursuant to Section 162 German Stock Corporation Act (AktG),
- // the unaudited content of the combined management report specified in the appendix to the auditor's report,
- // the executive directors' confirmation regarding the consolidated financial statements and the combined management report pursuant to Section 297 (2) sentence 4 and Section 315 (1) sentence 5 HGB,
- // all other parts of the annual report,
- // but not the consolidated financial statements, not the audited content of the combined management report and not our auditor's report thereon.

The supervisory board is responsible for the report of the supervisory board and the foreword to the compensation report. The executive directors and the supervisory board are responsible for the declaration on the German Corporate Governance Code in accordance with Section 161 AktG, which is part of the corporate governance statement included in the "Corporate Governance Report" section of the combined management report, and for the compensation report. Otherwise the executive directors are responsible for the other information.

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in doing so, to consider whether the other information

- // is materially inconsistent with the consolidated financial statements, with the audited content of the combined management report or our knowledge obtained in the audit, or
- // otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the combined management report that as a whole provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and in supplementary compliance with the ISA will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

// identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
// obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
// evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
// conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRS as adopted by the EU and with the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- perform audit procedures on the prospective information presented by the executive directors in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the current period and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Prepared for Publication Pursuant to Section 317 (3a) HGB

Audit Opinion

We have performed an audit in accordance with Section 317 (3a) HGB to obtain reasonable assurance whether the electronic reproductions of the consolidated financial statements and of the combined management report (hereinafter referred to as "ESEF documents") prepared for publication, contained in the file, which has the SHA-256 value 8df8bcd25d6e39bc2ce628f4a4c309b8c9cd3a188d76c9e9b43675483697f49a, meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB ("ESEF format"). In accordance with the German legal requirements, this audit only covers the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format, and therefore covers neither the information contained in these electronic reproductions nor any other information contained in the file identified above.

In our opinion, the electronic reproductions of the consolidated financial statements and of the combined management report prepared for publication contained in the file identified above meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB. Beyond this audit opinion and our audit opinions on the accompanying consolidated financial statements and on the accompanying combined management report for the financial year from January 1 to December 31, 2023 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report" above, we do not express any assurance opinion on the information contained within these electronic reproductions or on any other information contained in the file identified above.

Basis for the Audit Opinion

We conducted our audit of the electronic reproductions of the consolidated financial statements and of the combined management report contained in the file identified above in accordance with Section 317 (3a) HGB and on the basis of the IDW Auditing Standard: Audit of the Electronic Reproductions of Financial Statements and Management Reports Prepared for Publication Purposes Pursuant to Section 317 (3a) HGB (IDW AuS 410 (06.2022)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibilities in this context are further described in the "Group Auditor's Responsibilities for the Audit of the ESEF Documents" section. Our audit firm has applied the requirements of the IDW Quality Management Standards.

Responsibilities of the Executive Directors and the Supervisory Board for the Audit of the ESEF Documents

The executive directors of the parent are responsible for the preparation of the ESEF documents based on the electronic files of the consolidated financial statements and of the combined management report according to Section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements according to Section 328 (1) sentence 4 no. 2 HGB.

In addition, the executive directors of the parent are responsible for such internal controls that they have considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements for the electronic reporting format pursuant to Section 328 (1) HGB.

The supervisory board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor’s Responsibilities for the Audit of the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal control relevant to the audit on the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e., whether the file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, in the version in force at the reporting date, on the technical specification for this electronic file.
- evaluate whether the ESEF documents enable a XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited combined management report.
- evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the shareholders’ meeting on April 28, 2023. We were engaged by the supervisory board on June 28, 2023. We have been the group auditor of Bayer Aktiengesellschaft, Leverkusen/Germany, without interruption since the financial year 2017.

We declare that the audit opinions expressed in this auditor’s report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

OTHER MATTER – USE OF THE AUDITOR’S REPORT

Our auditor’s report must always be read together with the audited consolidated financial statements and the audited combined management report as well as with the audited ESEF documents. The consolidated financial statements and the combined management report converted into the ESEF format – including the versions to be submitted for inclusion in the Company Register – are merely electronic reproductions of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our audit opinion contained therein are to be used solely together with the audited ESEF documents made available in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Michael Mehren.

Munich/Germany, February 23, 2024

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed:
Andreas Wermelt
Wirtschaftsprüfer
(German Public Auditor)

Signed:
Michael Mehren
Wirtschaftsprüfer
(German Public Auditor)

Appendix to the Auditor's Report:
Parts of the Combined Management Report whose content is unaudited
We have not audited the content of the following parts of the combined management report:

- The statements contained in the "About this Report" section to which reference is made in the combined management report,
- Table A 1.2.1/1 "Nonfinancial Group Targets Through 2030", including the statements made in the footnotes as well as the following explanatory passages on the Group's non-financial targets contained in section 1.2.1 of the combined management report,
- Tables A1.8/2 "Taxonomy Turnover Reporting", A1.8/3 "Proportion of turnover per environmental objective", A1.8/4 "Taxonomy CapEx Reporting", A1.8/5 "Proportion of CapEx per environmental objective", A1.8/6 "Taxonomy OpEx Reporting" and A1.8/7 "Proportion of OpEx per environmental objective" contained in section 1.8 of the combined management report, including the statements made in the footnotes as well as the statements made in the "EU taxonomy" subsection,
- the statements made on the subject of Scope 3 emissions in Table A 1.8/1 "Greenhouse Gas Emissions" contained in section 1.8 of the combined management report as well as the related statements,
- the statements made on the appropriateness and operating effectiveness of internal control (IC) and the risk management system (RMS) in accordance with Recommendation A.5 of the GCGC contained in section 3.2.1 of the combined management report under "Assessment of the risk management and internal control system pursuant to Section 91, Paragraph 3 of the German Stock Corporation Act",
- the corporate governance statement pursuant to Section 289f and Section 315d HGB included in section 4.1 of the combined management report, and
- all cross-references to web pages of the Company and the information to which these cross-references refer.

Limited assurance report of the independent practitioner regarding the additional non-financial information of the Group in the combined management report

To Bayer Aktiengesellschaft, Leverkusen/Germany

Engagement
We have performed a limited assurance engagement on the following information in the combined management report of Bayer Aktiengesellschaft, Leverkusen/Germany, (hereafter referred to as "the Company") for the financial year from January 1 to December 31, 2023:

- Table A 1.2.1/1 "Nonfinancial Group Targets Through 2030", including the statements made in the footnotes, as well as the following passages on the Group's non-financial targets contained in section 1.2.1 of the combined management report
- Disclosures on the implementation of the Regulation (EU) 2020/852 of the European Parliament and of the Council of June 18, 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 under the subsection "EU taxonomy", included in the combined management report in section 1.8
- Statements made on the subject of Scope 3 emissions in Table A 1.8/1, as well as the related statements, in section 1.8 of the combined management report

(hereafter together referred to as "additional non-financial information").

Our assurance engagement does not cover external documentation sources mentioned in the additional non-financial information.

Responsibilities of the executive directors
The executive directors of Bayer Aktiengesellschaft are responsible for the preparation of the additional non- financial information in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereafter referred to as: "GRI Principles"), the method papers developed by Bayer Aktiengesellschaft and Article 8 of Regulation (EU) 2020/852 of the European Parliament and the Council of June 18, 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereafter referred to as "EU Taxonomy Regulation") and the delegated acts adopted thereon, as well as with the interpretation of the wording and terminology contained in the EU Taxonomy Regulation and the delegated acts adopted thereon by the executive directors, as is presented in section 1.8 of the combined management report.

These responsibilities of the executive directors of the Company include the selection and application of appropriate methods regarding the additional non-financial information and the use of assumptions and estimates for individual non-financial information which are reasonable under the given circumstances. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of a non-financial reporting that is free from material misstatement, whether due to fraud (i.e., fraudulent non-financial reporting) or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, the executive directors have laid down their own interpretation of the EU Taxonomy Regulation and of the Delegated Acts adopted thereon in section 1.8 of the combined management report. They are responsible for the justifiability of this interpretation. The legal conformity of the interpretation is subject to uncertainties due to the immanent risk that undefined legal terms may be interpreted differently.

The preciseness and completeness of environmental data of the additional non-financial information is subject to inherent restrictions resulting from the way the data was collected and calculated and from assumptions made.

Independence and quality assurance of the independent practitioner

We have complied with the German professional requirements on independence and other professional rules of conduct.

Our firm applies the national statutory rules and professional announcements – particularly of the “Professional Charter for German Public Auditors and German Sworn Auditors” (BS WP/vBP) and of the quality assurance standards promulgated by the Institut der Wirtschaftsprüfer (IDW) – and therefore maintains a comprehensive quality management system comprising documented regulations and measures in respect of compliance with professional rules of conduct, professional standards, as well as relevant statutory and other legal requirements.

Responsibilities of the independent practitioner

Our responsibility is to express a conclusion on the additional non-financial information based on our work performed within our limited assurance engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): “Assurance Engagements Other than Audits or Reviews of Historical Financial Information”, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement in a way for us to assess with limited assurance whether matters have come to our attention that cause us to believe that the additional non-financial information in the combined management report of Bayer Aktiengesellschaft, with the exception of the external sources of documentation stated therein, has not been prepared, in all material respects, in accordance with the GRI Principles, the method papers developed by Bayer Aktiengesellschaft and Article 8 of the EU Taxonomy Regulation and the Delegated Acts adopted thereon, as well as with the executive directors’ interpretation of the wording and terminology contained in the EU Taxonomy Regulation and the Delegated Acts adopted thereon, as is presented in section 1.8 of the combined management report. The procedures performed in a limited assurance engagement are less in extent than for a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The choice of assurance work is subject to the practitioner’s professional judgment.

Within the scope of our limited assurance engagement, which we performed between October 2023 and February 2024, we performed, among others, the following procedures and other work:

- Gaining an understanding of the structure of the sustainability organization of the Group, and of the stakeholders' engagement
- Analytical and test of detail procedures to validate the processes and data for the non-financial group targets of the Company in accordance with the GRI Principles and the respective method papers developed by Bayer Aktiengesellschaft
- Decentralized site visits to assess the data underlying the information
- Inquiries of relevant personnel involved in the preparation of the information about the preparation process and about the internal control relating to this process
- Identification of potential risks of material misstatement
- Analytical assessment of the additional non-financial information
- Evaluation of the presentation of the additional non-financial information

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, the executive directors are required to interpret undefined legal terms. The legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties due to the immanent risk that undefined legal terms may be interpreted differently.

Practitioner's conclusion

Based on the work performed and the evidence obtained, nothing has come to our attention that causes us to believe that the information in the additional non-financial information of the combined management report of Bayer Aktiengesellschaft, Leverkusen/Germany, for the financial year from January 1 to December 31, 2023 has not been prepared, in all material respects, in accordance with the GRI Principles, the method papers developed by Bayer Aktiengesellschaft as well as the EU Taxonomy Regulation and the Delegated Acts adopted thereon, as well as with the interpretation by the executive directors presented in section 1.8 of the combined management report.

We do not express a conclusion on the external sources of documentation stated in the additional non-financial information.

Restriction of Use and Reference to Limitation of Liability

We issue this report as stipulated in the engagement letter agreed with the Company (including the "General Engagement Terms for Wirtschaftsprüferinnen, Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" dated January 1, 2024 of the Institute of Public Auditors in Germany). We draw attention to the fact that the assurance engagement was conducted for the Company's purposes and that the report is intended solely to inform the Company about the result of the assurance engagement. Consequently, it may not be suitable for any other purpose than the aforementioned. Hence, this report should not be used by third parties as a basis for any (asset) decision.

We are solely responsible to the Company. However, we do not accept or assume liability to third parties. Our conclusion was not modified in this respect.

Munich/Germany, February 23, 2024

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed: Michael Mehren Wirtschaftsprüfer (German Public Auditor)	Signed: Sebastian Dingel

C Compensation Report

Contents

Foreword by the Chairman of the Supervisory Board

Dear stockholders,

On behalf of the Supervisory Board of Bayer AG, I am pleased to present our 2023 Compensation Report and updated compensation system proposed for 2024. In this letter I address several key areas of focus for the Supervisory Board and realigned Human Resources and Compensation Committee in relation to the compensation of the Board of Management:

1. Extensive engagement with stockholders and responsive actions taken
2. 2023 pay outcomes and their alignment with company performance
3. Compensation in connection with the appointment of our new CEO
4. Improved compensation system for the Board of Management effective for 2024

Prof. Dr. Norbert Winkeljohann, Chairman of the Supervisory Board of Bayer AG

Supervisory Board actions responsive to stockholder feedback

Engaging with our stockholders is a top priority for Bayer and the Supervisory Board. We regularly meet with stockholders representing approximately 40% of shares outstanding (which is 59% of shares held by institutional investors) in addition to the normal course, investor relations-driven discussions. As Supervisory Board Chairman, I lead many of these engagements and am grateful for the constructive dialogue with and comprehensive feedback shared by stockholders.

Since the 2022 Annual Stockholders' Meeting, a primary focus for these discussions has been on Board of Management compensation. The 2022 Compensation Report received only 52% support at the Annual Stockholders' Meeting in 2023, and while this was an improvement over the 24% received in the prior year, the Supervisory Board and the Human Resources and Compensation Committee understood that we had more to do to respond to our stockholders.

The feedback from our stockholders is reflected in both the 2023 Compensation Report, which includes enhanced disclosures and payouts reflective of performance, and the go-forward compensation system effective for 2024 subject to stockholder approval. While the views of stockholders varied and were not consistent in all areas, we did our best to reflect consensus feedback in our actions while also making a commitment to transparency around our decision-making processes.

Details on our responsive actions can be found in the table in Section 1.1.2 of the Compensation Report.

2023 performance and alignment with pay outcomes

2023 was a challenging year for Bayer, and we are disappointed with how our company performed overall. The Crop Science Division experienced significant headwinds due to declines for glyphosate-based products. The Pharmaceuticals Division saw declines due to an unfavorable product mix and pricing pressure from generics. Conversely, the Consumer Health Division, despite unfavorable market dynamics, performed well against its peers, through improving operating efficiencies and price management efforts.

The compensation system ensures the alignment of incentive payouts with overall company and divisional performance while also reflecting the stockholder experience. This is evidenced by pay outcomes for 2023 being well below target as the company did not meet the ambitious goals set by the Supervisory Board at the beginning of the respective performance periods:

- // For the short-term incentive (STI), average target attainment was 12.8%, compared with 129.5% in 2022. This is based on the below-target attainment levels for all three equally weighted components of the STI. Core earnings per share, which came in at €6.39 reflecting Bayer's operational performance, resulted in below-target attainment of 0%. Free cash flow was €1,311 million, in line with our updated guidance, but missed the stretched incentive goal and resulted in attainment of 0%. Finally, the Crop Science, Pharmaceutical and Consumer Health divisional components, which are based on EBITDA margin and sales growth, resulted in attainment levels of 0.0%, 35.0% and 101.5%, respectively.

- // For the long-term incentive (LTI), the first tranche of the four-year performance period of the Aspire 3.0 granted in 2020 was earned substantially below target at 13.15%, reflecting Bayer's disappointing stock performance during the period January 1, 2020, to December 31, 2023, both in absolute terms and relative to the EURO STOXX 50 Total Return.

Average direct compensation awarded to the Board of Management in 2023 amounted to 13.0% of target direct compensation, compared with 87% in 2022 and 92% in 2021, demonstrating strong alignment between pay and company performance.

Compensation in connection with the appointment of our new CEO

Appointing a new CEO was a top priority of the Supervisory Board in 2023, and it was a task that we undertook acknowledging stockholder calls for a change in strategy and leadership. We are incredibly pleased to have Bill Anderson as our CEO leading us forward as we embark on a refreshed strategy that best leverages the tremendous assets of Bayer to drive better performance and overcome our recent challenges. When approving Bill Anderson's compensation package, the Supervisory Board considered the highly competitive global talent environment, the need for a competitive compensation level that at least reflected what he received at his previous employer, and a structure that incentivizes performance and aligns to the stockholder experience. In connection with his hire, Bill Anderson was granted a payment as partial reimbursement for equity he was required to forfeit from his previous employer, and was eligible to participate in our incentive programs for 2023 under the performance requirements set forth at the beginning of the year (resulting in a below-target STI payout). He was not granted any other one-time incentives.

The Supervisory Board thanks our former CEO, Werner Baumann, for his many years of service with Bayer. Werner Baumann is being compensated for the remaining term of his contract (until April 2024) in line with his service contract provisions. Beyond that, no additional compensation was paid to Werner Baumann, and his outstanding LTI tranches are not subject to accelerated vesting or early payment and will be earned only if the original performance criteria are met. While these three LTI tranches ultimately may not pay out, the fair value of the outstanding tranches must be reported as a lump sum in this year's tables based on accounting rules.

Improved compensation system for the Board of Management

The Supervisory Board and Human Resources and Compensation Committee have developed an improved Board of Management compensation system that is responsive to stockholder feedback, including structural amendments to simplify the system and ensure that compensation decisions are more closely aligned to company performance and the stockholder experience. Key changes include:

// Within the STI
- Litigation-related expenses will no longer be excluded from the calculation of free cash flow and ultimate payout.
- Metrics align to our go-forward strategic priorities to ensure we're incentivizing the right levers to drive performance.
- Targets set at the beginning of each performance period will align to our capital market guidance (where applicable).
- The Supervisory Board will have a limited ability to adjust final payouts for extraordinary events.

// Within the LTI
- Greater alignment to long-term stockholder value creation by doubling the proportion of LTI opportunity linked to relative total shareholder return (TSR) from 40% to 80%
- The relative TSR metric will now require meaningful outperformance at the 60th percentile of the benchmark index companies to achieve target payout.
- Sustainability targets will continue to be weighted at 20% of the LTI.

The updated compensation system will be presented for stockholder approval at the 2024 Annual Stockholders' Meeting. A detailed description of the system, including the changes compared with the previous system, are included in the Notice of the Annual Stockholders' Meeting. While the compensation system is typically in place for four years, the Supervisory Board will review it mid-cycle to ensure it is working as intended.

Conclusion

The Supervisory Board has taken significant actions to be responsive to stockholder feedback. These include pay outcomes that align with company performance, enhanced transparency around the compensation process, and a go-forward compensation system that creates further alignment and drives the right incentives for our current Board of Management.

On behalf of the Supervisory Board, I'd like to express our appreciation for your support for the 2023 Compensation Report and go-forward compensation system to be presented at the Annual Stockholders' Meeting on April 26, 2024. Additional information on these and other compensation-related topics can be found in the 2023 Compensation Report and in the Notice of the Annual Stockholders' Meeting for 2024.

Prof. Dr. Norbert Winkeljohann
Chairman of the Supervisory Board

Overview of Compensation in 2023

Executive Summary

Compensation system (since 2020)

Long-term incentive (LTI)

4-year performance period (cap: 250% of target)

40%	40%	20%				
Relative TSR[1]	ROCE	Sustainability targets	×	Change in share price	+	Dividend equivalent

Short-term incentive (STI)

1-year performance period (cap: 200% of target)

33%	33%	33%		
Core EPS (Group level)	Free cash flow (Group level)	cEBITDA margin/Fx & p adj. sales growth (divisional level)	×	Individual performance/ nonfinancial targets (0.8–1.2)

Base salary // Fixed compensation

[1] Total shareholder return relative to the EURO STOXX 50 TR benchmark index

Actual performance against 2023 targets[2]

Short-term incentive (STI)

	target attained/max
Core EPS:	0/200
Free cash flow:	0/200
cEBITDA margin/ Fx & p adj. sales growth:	26/200
Performance factor:	110/120
Total:	**10/200**
CEO payout (€m):	**0.1/3.2**

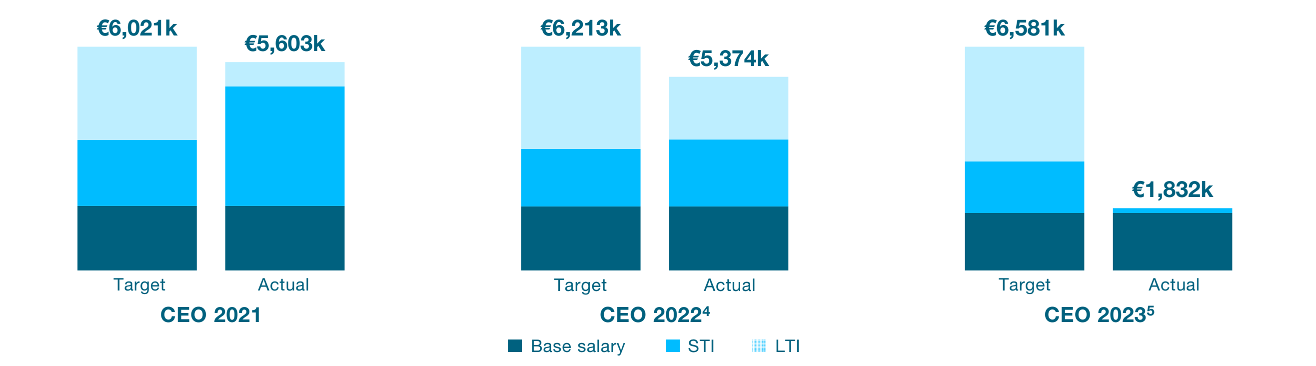
Long-term incentive (LTI)

	target attained/max
Relative TSR factor:	0/200
ROCE factor:	0/200
Share price development:	–45%
Accumulated dividends per share:	€9.20
Total:	**13/250**
CEO payout (€m):	**0/8.4**

[2] For definition and information on target attainment, see Chapter 1.3.2. For individual target attainment (performance factor) and target attainment at divisional level (cEBITDA margin/Fx & p adj. sales growth), the CEO, Bill Anderson, is shown (rounded). Bill Anderson is not eligible for a payment for the recently vested LTI period 2020 to 2023.

CEO compensation 2021–2023

The following graphic shows the target compensation and the compensation payout (base salary and variable compensation)[3] for the CEO:



[3] Excluding fringe benefits and pension installment/service cost. For definition and components of the compensation paid out, see Chapter 1.3.

[4] Taking into account stockholder feedback, the Supervisory Board, in agreement with the CEO, reduced the individual performance factor of the STI for 2022 by 14 percentage points.

[5] Bill Anderson as of April 1, 2023 (CEO since June 1)

1. Compensation of the Board of Management

The Compensation Report produced by the Board of Management and the Supervisory Board of Bayer Aktiengesellschaft (Bayer AG) outlines the essential features of the compensation packages for the members of the Board of Management and the Supervisory Board of Bayer AG and provides information on the compensation awarded and due to each current and former member of the Board of Management and the Supervisory Board in 2023. Awarded compensation encompasses compensation for services that have been fully rendered once the fiscal year ends. The report thus complies with the regulatory requirements of Section 162 of the German Stock Corporation Act (AktG) and the recommendations and suggestions in the April 28, 2022, version of the German Corporate Governance Code. The Guidelines for Sustainable Management Board Remuneration Systems, which were most recently updated in September 2021, are also taken into account.

Pursuant to the stipulations of Section 120a, Paragraph 4 of the AktG, we will propose that the Annual Stockholders' Meeting to be held on April 26, 2024, resolve on the approval of the prepared and audited Compensation Report.

1.1 Review of 2023

1.1.1. Performance in 2023

Sales of the Bayer Group declined to €47,637 million in 2023. Sales at Crop Science fell significantly against the strong prior year (Fx & portfolio adj. –3.8%[1]), primarily due to the decline in prices for our glyphosate-based products. Sales at Pharmaceuticals were level with the previous year (Fx & portfolio adj. –1.0%[1]). Significant gains for our new products Nubeqa™ and Kerendia™ and continued sales growth for Eylea™ and our Radiology business were mainly offset by declines in China. Consumer Health posted an increase in sales (Fx & portfolio adj. +5.8%[1]), largely thanks to strong performance in the Dermatology and Pain & Cardio categories.

EBITDA before special items of the Bayer Group fell to €11,706 million, while the EBITDA margin before special items decreased from 26.6% in 2022 to 24.6% in 2023. Crop Science registered a drop in EBITDA before special items (EBITDA margin before special items: 21.7%) that was largely due to the decline in prices for our glyphosate-based products. Earnings were also diminished by a mainly inflation-related increase in the cost of goods sold. Pharmaceuticals likewise recorded a decrease in EBITDA before special items (EBITDA margin before special items: 28.7%). This was primarily attributable to an unfavorable product mix, inflation-driven cost increases, and R&D investments. Consumer Health posted an increase in EBITDA before special items (EBITDA margin before special items: 23.4%), mainly driven by our multi-year efficiency program, price management efforts and sustained sales growth.

Core earnings per share decreased year on year to €6.39 due to the decline in earnings in the Crop Science and Pharmaceuticals divisions. Incentivized free cash flow in 2023 came in below target at €3.4 billion, resulting in a target attainment level of 0%. This was partly due to the aforementioned decline in earnings in our core business.

[1] Due to the hyperinflation-related growth in Argentina and Turkey, currency- and portfolio-adjusted sales growth was adjusted by minus 0.1 percentage points for Crop Science, minus 0.7 percentage points for Pharmaceuticals and minus 0.5 percentage points for Consumer Health when determining target attainment.

1.1.2 Response to the vote on the 2022 Compensation Report at the 2023 Annual Stockholders' Meeting

In 2020, the compensation system for the members of the Board of Management was presented to the Annual Stockholders' Meeting and approved by a large majority (94.02%) of investors. However, the 2021 Compensation Report was endorsed by only 24.11% of the participating stockholders when it was submitted to a vote at the 2022 Annual Stockholders' Meeting. The 2022 Compensation Report was presented to the Annual Stockholders' Meeting on April 28, 2023, and approved by 52.33% of the eligible votes.

The table below outlines the concerns expressed by our stockholders during engagement and how they were accounted for when preparing this Compensation Report, along with the compensation-related decisions taken by the Supervisory Board in 2023:

C 1.1/1

Investor Focus Areas and Actions Taken in Response

Area of focus	Investor feedback and Bayer's responsive actions

Litigation impact on free cash flow metric	Stockholders voiced concerns that litigation payments were excluded from the calculation of free cash flow for compensation purposes.
	// Under the compensation system approved in 2020, litigation-related payments were excluded from consideration under the definition of the free cash flow component.
	// Under the updated compensation system for 2024, the free cash flow metric in the STI will not be adjusted for payments in connection with litigation and will align with values published in the Annual Report.

Alignment of compensation system with go-forward strategy	Some stockholders shared that the updated compensation system should align to the go-forward strategic priorities of the new CEO. // Metrics within the updated compensation system for 2024 will align to the go-forward strategy, with a focus on debt reduction, sales growth and strategy execution in the STI. In addition, the weighting of relative TSR in the LTI will increase from 40% to 80% to align with the focus on improving the share price.
Target setting	Some stockholders would like targets to be ambitious, simple to understand, and aligned with external guidance. // As previously committed in 2023, targets will be robust and aligned to capital market guidance (where applicable).
Extraordinary events	Some stockholders indicated that the Supervisory Board should be able to adjust payouts in the case of extraordinary events, which is not permitted in the current system. // Within the updated compensation system for 2024, the Supervisory Board will have a limited ability to adjust STI payouts for extraordinary events in line with Recommendation G.11 of the German Corporate Governance Code in a situation where calculated payouts do not align with performance (e.g., war, pandemics or other disasters). The rationale for any adjustment will be transparently disclosed.

Long-term stockholder alignment	Some stockholders sought increased alignment of performance measures with the long-term stockholder experience, including a more ambitious target attainment level for the relative TSR metric.
	// In the updated compensation system for 2024, the proportion of LTI payout linked to relative TSR will increase from 40% to 80% to emphasize alignment with long-term stockholder value creation and focus on improving the share price.
	// In addition, the relative TSR metric will now require outperformance of the benchmark index at the 60th percentile to achieve target payout.

Focus on ESG	Some stockholders sought assurance that ESG would remain a focus in the compensation system. // The updated compensation system for 2024 will continue to include sustainability targets weighted as 20% of the LTI.

Compensation for outgoing CEO	Some stockholders expressed concern that former CEO Werner Baumann would receive inflated compensation related to his departure from Bayer.
	// Werner Baumann is being compensated for the remaining term of his contract. Beyond that, he received no additional compensation. The value of Werner Baumann's payout in 2023 reflects our contractual obligations, standard market practice and the recommendations of the German Corporate Governance Code, associated with his salary for the remainder of the term of his contract (through to April 30, 2024).
	// His outstanding LTI tranches are not subject to accelerated vesting or early payment and are subject to their original performance conditions. These LTI awards will be earned and paid out only if the performance criteria is met. However, the fair value must be reported in 2023 as a lump sum based on accounting rules regardless of whether the LTI awards are ultimately earned based on performance.

1.1.3 Personnel changes on the Board of Management

At its meeting on February 8, 2023, the Supervisory Board of Bayer AG unanimously appointed Bill Anderson to become Chairman of the Board of Management (CEO) of Bayer, effective June 1, 2023. He joined Bayer as a member of the Board of Management on April 1, 2023. Werner Baumann and the Supervisory Board had previously agreed to prematurely terminate Baumann's contract as a member and Chairman of the Board of Management (CEO) of Bayer AG, which had originally been scheduled to end on April 30, 2024. His service contract and term of office ended by mutual agreement on May 31, 2023.

At its meeting on August 21, 2023, the Supervisory Board of Bayer AG unanimously appointed Heike Prinz to become a member of the company's Board of Management, as well as Chief Talent Officer and Labor Director, effective September 1, 2023. Sarena Lin and the Supervisory Board had previously agreed not to extend Lin's contract as a member of the Board of Management beyond January 31, 2024. Her term of office ended by mutual agreement on August 31, 2023.

1.2 Design of Board of Management compensation

The Supervisory Board sets the Board of Management's compensation pursuant to Section 87, Paragraph 1 of the AktG. The current compensation system for the Board of Management of Bayer AG applies in the version approved by a large majority (94.02%) at the Annual Stockholders' Meeting on April 28, 2020. The compensation system is submitted to the Annual Stockholders' Meeting for approval whenever significant changes are made to this system, or at least every four years. As such, a new compensation system will be presented to the Annual Stockholders' Meeting on April 26, 2024.

The Supervisory Board applies the following guidelines and principles when designing the compensation system:

C 1.2/1

We ensure …	We avoid …
✓ … that we promote long-term and sustainable performance	× … prioritizing short-term success at the expense of long-term performance
✓ … that we set ambitious and measurable targets	× … offering guaranteed variable compensation levels
✓ … that compensation is aligned toward performance and success	× … paying special discretionary bonuses
✓ … that the interests of our stakeholders (e.g., stockholders and employees) are fully reflected in compensation	× … neglecting the interests of our stockholders
✓ … that we take regulatory requirements fully into account	× … incentivizing inappropriate risks
✓ … that we offer appropriate compensation in line with market rates	× … inappropriately high payouts and excessive severance payments
✓ … that compensation is capped	× … retrospectively adjusting targets
✓ … that we are highly transparent in our compensation reporting	× … providing insufficient transparency in our compensation reporting
	× … overlapping STI and LTI targets

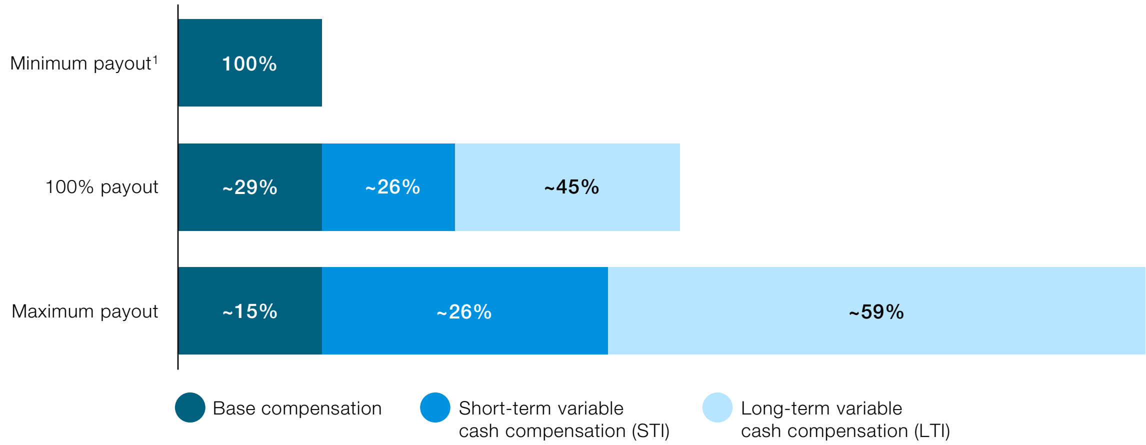
The section below provides an overview of the compensation system in place for the Board of Management. A detailed description of the compensation system can be found at www.bayer.com/cpr and in Chapter 1.3 (Compensation components in detail).

1.2.1 Design of compensation system

The total compensation of the members of the Board of Management of Bayer AG comprises fixed and variable components. Over 70% of the contractually agreed target direct compensation is performance-based:

C 1.2/2

Design of Board of Management Compensation (Target Direct Compensation)



Scenario[2]	Explanation
Minimum payout	STI: 0% of target amount; LTI: 0% of target amount
100% payout	STI: 100% of target amount; LTI: 100% of target amount
Maximum payout	STI: 200% of target amount; LTI: 250% of target amount

[1] For the sake of simplicity, the minimum payout shown here is 100% of base compensation, even though dividends already paid out for each virtual share in the respective four-year LTI performance period would additionally have to be included.

[2] In isolated cases, the specific, individual compensation structure in a fiscal year may deviate slightly from the structure presented above due to compensation adjustments made during the course of the year.

C 1.2/3

Board of Management Compensation System for 2023

Compensation component	Design
Base compensation	// Fixed, contractually agreed compensation // Paid out in monthly installments

Short-term variable cash compensation (STI)	The payout after one year is calculated based on the target amount at the end of the year according to the following parameters:
	// 1/3 weighting: core EPS at Group level
	// 1/3 weighting: free cash flow at Group level
	// 1/3 weighting: clean EBITDA margin and sales growth (Fx & p adj.[1]) at divisional level
	// Individual performance factor (0.8 – 1.2) as a multiplier
	// Payout capped at 200% of individual target amount

Long-term variable cash compensation (LTI)	The payout after four years is calculated based on target attainment at the end of the fourth year according to the following parameters:
	// Absolute performance of Bayer stock
	// 40% weighting: performance relative to EURO STOXX 50 Total Return
	// 40% weighting: ROCE at Group level
	// 20% weighting: sustainability targets (starting with the 2021 tranche)
	plus dividends paid by Bayer AG over the four-year period for each virtual share conditionally allocated at the beginning of the tranche
	// Payout capped at 250% of individual target amount

Fringe benefits	// Regular health screening
	// Insurance policies
	// Company car with driver/corresponding budget
	// Security installations at private residence
	// Reimbursement of work-related moving expenses
	// Indemnity payments to new members of the Board of Management for variable compensation forfeited on termination of previous employment

Pension entitlements/installment	// Members of the Board of Management newly appointed after January 1, 2020, receive a pension installment calculated as a percentage of their base compensation and paid out directly in a lump sum // Members of the Board of Management appointed prior to January 1, 2020, receive contribution-based pension entitlements
Maximum total compensation	// The maximum total annual compensation paid out for a fiscal year is €12 million for the Chairman of the Board of Management (CEO) and €7.5 million for the other Board of Management members
Malus and clawback	// In the event of gross misconduct or misrepresentation in financial reporting, the Supervisory Board may withhold all or part of the STI and LTI (malus) or require their repayment to the company (clawback)
Share Ownership Guidelines	// Pledge to build a certain position size in Bayer stock by the end of a four-year period // Obligation to retain the shares throughout the period of service on the Board of Management and for two years thereafter
Contract termination	// If the service contract is terminated early – other than for cause – at the company's instigation, a severance payment of up to twice the annual compensation may be made, but this is limited to the compensation for the remaining term of the respective contract // Two-year post-contractual noncompete agreement; indemnity payment in the amount of base compensation, any severance payments are deducted from the indemnity payment
Change of control	// In the event of a change of control, members of the Board of Management are entitled to a severance payment of 250% of annual base compensation if certain narrow conditions are met. The payment is limited in either case to the compensation for the remaining term of the respective contract, capped at twice the annual compensation.

[1] Fx & p adj. = currency- and portfolio-adjusted

1.2.2 Setting compensation levels

The Supervisory Board reviews the individual compensation levels on the basis of the compensation system to ensure that the Board of Management members receive an appropriate level of compensation in line with market rates in the competitive environment. Bayer conducts benchmarking with its comparison groups at least every three years.

External comparison of compensation

The DAX companies, as well as international competitors that are comparable in terms of size and industry, serve as a benchmark when setting compensation levels.

The DAX companies are a suitable primary comparison group, especially in terms of the aspects of size and country. Bayer's economic position is factored in by regularly reviewing the company's relative positioning in the DAX in terms of size as measured by sales, number of employees and market capitalization. On this basis, Bayer aims to ensure its relative positioning within the DAX is in the top third in terms of target total compensation. Reviewing compensation levels and taking into account size criteria over time ensures that the compensation the members of the Board of Management of Bayer AG receive appropriately reflects the company's positioning.

The international comparison group is taken into account as an additional indicator to validate the competitiveness of Board of Management compensation on an international level, too. The international comparison group currently comprises the following companies:

C 1.2/4

International Comparison Group for Board of Management Compensation

// AstraZeneca	// BASF	// Bristol Myers Squibb	// Corteva
// FMC Corp	// GlaxoSmithKline	// Johnson & Johnson	// Merck & Co.
// Novartis	// Novo Nordisk	// Nutrien	// Pfizer
// Reckitt Benckiser	// Roche	// Sanofi	// Takeda

Development of compensation vs. workforce

In setting Board of Management compensation, the Supervisory Board also takes into account the company's internal compensation structure in Germany. For this purpose, the Supervisory Board compares the average target direct compensation of the Group's Board of Management with the average target direct compensation of various management levels and the workforce as a whole, taking into account both the current ratios and the changes in ratios over time:

// The first management level below the Board of Management
// Managerial employees
// The overall workforce
// Nonmanagerial employees

Outcome of the compensation review in 2023

The Supervisory Board analyzed the current market trend and undertook an external comparison of compensation, but as in the previous year did not resolve to make any compensation adjustments for 2023.

The Supervisory Board set Bill Anderson's target compensation as part of the CEO appointment process. Appointing a new CEO was one of the Supervisory Board's top priorities in 2023, with the decision made following an extensive selection process. In view of the highly competitive environment, especially in the international arena, and the compensation package granted to Anderson by his previous employer, the Supervisory Board firmly believes that offering an attractive compensation package was justified and necessary to attract the right candidate to fill the position of Bayer AG CEO and thus support the company's long-term interests. See the compensation tables in Chapter 3.4 for further details.

1.2.3 Target-setting and attainment process

The Supervisory Board aims to set ambitious yet attainable targets that are in step with the expectations of investors and the capital market.

// The targets used in the short-term incentive program are based on the main KPIs employed to measure the organization's operational success in the current fiscal year.
// The targets used in the long-term incentive system are aimed at incentivizing long-term value creation. Alongside ROCE and ESG-related KPIs, target attainment is largely dependent on the company's absolute share price development relative to the EURO STOXX 50 Total Return, which serves to ensure close alignment between investor interests and management incentivization.

Using the operational planning as a baseline, the Supervisory Board sets a minimum value, a target corridor, a maximum value and additional benchmarks at the start of each fiscal year. When setting the targets, the Supervisory Board takes into account the planning values, along with the following parameters and updated information not already included in the operational planning:

- // Market growth forecasts and competition-related information
- // Capital market guidance
- // Analyst expectations
- // Additional factors that could significantly impact the opportunity and risk profile for the fiscal year

At the start of the year, the Supervisory Board also sets nonfinancial Group targets and individual annual targets for each Board of Management member. The target values for these objectives are also determined on the basis of KPIs where possible.

After the year has ended, the Supervisory Board evaluates the performance of the Board of Management members based on the level of target attainment for the individual financial and nonfinancial KPIs. Special factors and significant unplanned and nonrecurring effects are evaluated based on the guidelines in place, ensuring that they are handled consistently when determining target attainment.

Special factors and significant unplanned and nonrecurring effects
Special factors in determining EBITDA before special items and core EPS are described in Chapter 2.3 of the Management Report. In addition, significant unplanned and nonrecurring effects may arise that cannot be planned for with sufficient reliability with respect to their occurrence, timing and magnitude, and that may potentially have a significant impact on operational performance in the performance period. In line with the respective planning assumptions, certain effects can – based on a set catalog of criteria – be excluded from consideration when measuring target attainment, provided they exceed certain thresholds. The Supervisory Board is responsible for making any such decisions.

In 2023, no adjustments were made due to significant unplanned and nonrecurring effects.

1.3 Compensation components in detail

1.3.1 Base compensation

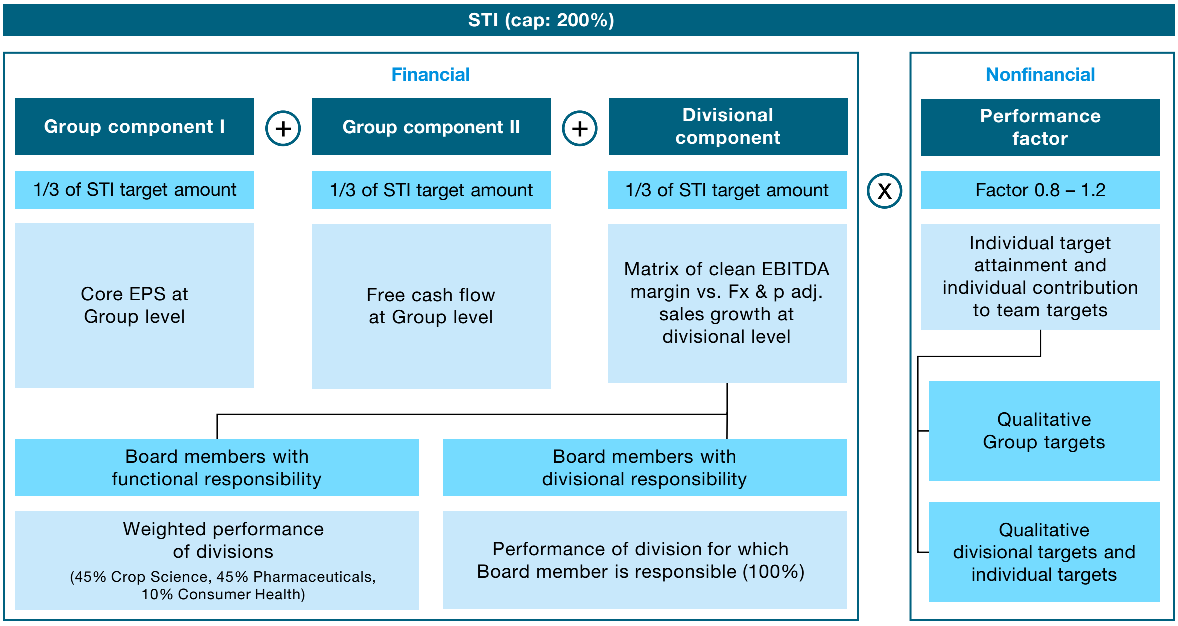
The base compensation is fixed, contractually agreed annual compensation that is paid out in monthly installments within a calendar year. The level of fixed compensation reflects the role on the Board of Management, the area of responsibility and market conditions.

1.3.2 Short-term variable cash compensation (STI) for 2023

The short-term variable cash compensation depends on the success of the business in the respective year. It incentivizes operational success and profitable growth within the defined strategic framework. It also sets targeted incentives to increase profitability (core EPS) and cash flow (free cash flow) development. In addition, the individual performance of the Board of Management members is evaluated using a performance factor that permits the establishment of further targets, particularly nonfinancial ones. The target attainment for the STI depends on the three equally weighted financial components and the individual performance factor. A cap of 200% is in place for the individual financial target components and for the STI overall. The components of the short-term variable cash compensation are shown in the graphic below.

C 1.3/1

Components of Short-Term Variable Cash Compensation (STI)

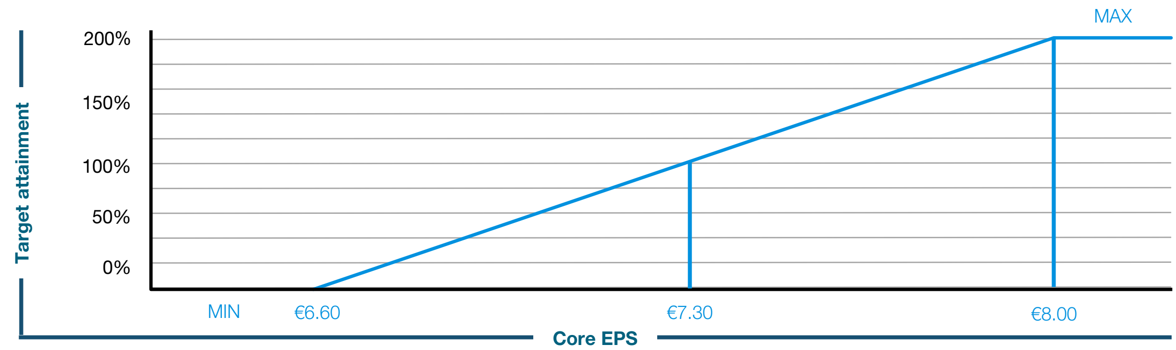


Group component I
Group component I is derived from core earnings per share (core EPS) at Group level. Using core EPS for this component provides specific incentives to raise profitability in the Bayer Group.

The graphic below shows the minimum value, target value and maximum value for core EPS in 2023:

C 1.3/2

Target Attainment Function for Core EPS



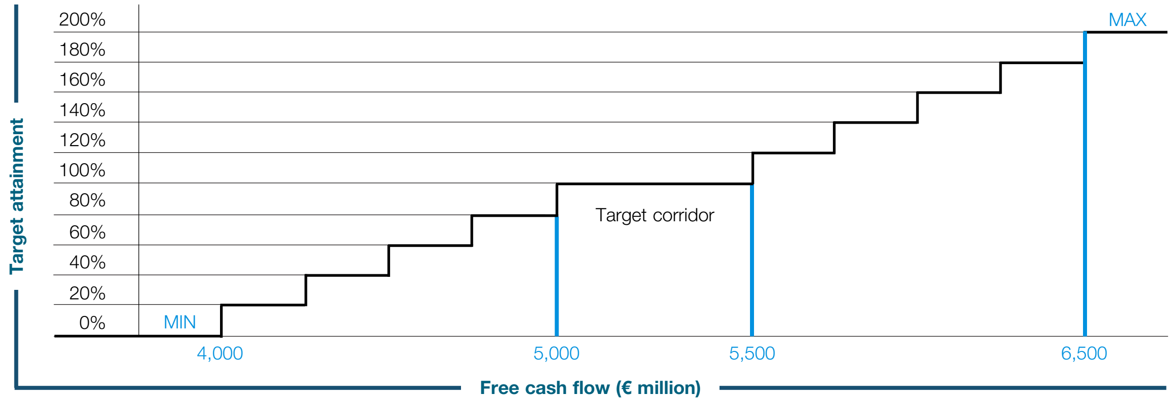
For fiscal 2023, the core EPS target for Group component I was set at €7.30. Actual core EPS came in at €6.39, corresponding to a target attainment level of 0%.

Group component II
Group component II is determined by the free cash flow at Group level. This component is aimed at incentivizing an increase in the cash flow available for paying dividends, reducing debt and making acquisitions, and ensures the Bayer Group’s liquidity.

The graphic below shows the minimum value, target corridor and maximum value for the free cash flow in 2023:

C 1.3/3

Target Attainment Function for Free Cash Flow



Payments in connection with the ongoing liability litigations surrounding glyphosate, dicamba, PCBs and Essure™ are excluded from consideration for compensation purposes when the KPI for the incentivized free cash flow is defined. These payments are therefore irrelevant for setting targets and measuring attainment. For 2023, the target corridor for the incentivized free cash flow was set at €5.0 billion to €5.5 billion. The incentivized free cash flow for 2023 came in at €3.4 billion, meaning that target attainment fell below the minimum threshold and therefore amounted to 0%.

Divisional component
This component is calculated for each division by setting the EBITDA margin before special items against currency- and portfolio-adjusted sales growth in a matrix. Members of the Board of Management with divisional responsibility are assessed solely based on the respective division’s performance, while those with functional responsibility are assessed based on the weighted average performance of all divisions. This average performance is determined using the following weightings: 45% Crop Science, 45% Pharmaceuticals and 10% Consumer Health. This matrix serves to specifically incentivize profitable growth in each division. Growth should only be generated while maintaining profitability, and raising profitability in the short term should not be incentivized at the expense of growth. At the end of each year, the EBITDA margin before special items and the currency- and portfolio-adjusted sales growth actually achieved by the individual divisions are compared to the target matrix previously set for that year. Failure to meet one of the two minimum values results in a target attainment level of 0% for the divisional component.

C 1.3/4

STI Payout Matrix for the 2023 Financial Targets of the Divisions

						EBITDA margin before special items				
						Minimum value		Target corridor		Maximum value
					CS	24.6%	…	25.6%	…	27.6%
					PH	28.1%	…	29.1%	…	31.1%
					CH	22.3%	…	23.3%	…	25.3%
		CS	PH	CH						
Sales growth (Fx & p adj.)	Minimum value	0.5%	–1.3%	3.5%		0%	…	50%	…	150%
		…	…	…		…	…	…	…	…
	Target corridor	3.0%	1.2%	6.0%		50%	…	100%	…	200%
		…	…	…		…	…	…	…	…
	Maximum value	8.0%	6.2%	11.0%		150%	…	200%	…	200%

Fx & p adj. = currency- and portfolio-adjusted; CS = Crop Science; PH = Pharmaceuticals; CH = Consumer Health

The currency- and portfolio-adjusted sales growth and the EBITDA margin before special items achieved by the divisions in 2023 are shown below.

Crop Science

// Sales growth vs. 2022 (Fx & portfolio adj.): –3.8%[2]
// EBITDA margin before special items: 21.7%
// Target attainment amounted to 0.0%.

Pharmaceuticals

// Sales growth vs. 2022 (Fx & portfolio adj.): –1.0%[2]
// EBITDA margin before special items: 28.7%
// Target attainment amounted to 35.0%.

Consumer Health

// Sales growth vs. 2022 (Fx & portfolio adj.): 5.8%[2]
// EBITDA margin before special items: 23.4%
// Target attainment amounted to 101.5%.

This resulted in a target attainment level of 25.9% for Board of Management members with functional responsibility.

Performance factor

In addition, team targets are agreed to reflect the collective responsibility of the members of the Board of Management as a governance body. These team targets are based on the Group targets set by the Board of Management for 2023 and approved by the Supervisory Board. For 2023, the team targets were in many cases achieved. The table below provides an overview of the subject areas along with their specific targets and corresponding KPIs.

[2] Due to the hyperinflation-related growth in Argentina and Turkey, currency- and portfolio-adjusted sales growth was adjusted by minus 0.1 percentage points for Crop Science, minus 0.7 percentage points for Pharmaceuticals and minus 0.5 percentage points for Consumer Health when determining target attainment.

C 1.3/5

Team Targets for 2023

Subject area	

Engage –
for a successful performance culture
	// Increase employee engagement and promote a performance culture
	// Improve engagement for employee health and safety, and ensure social acceptance (license to operate)
	// Promote inclusion and diversity, and implement the I&D plan

Shape –
our business and our organizations to seize long-term opportunities
	// Strengthen investors' trust and safeguard the company's reputation among key stakeholder groups
	// Pursue our company purpose by leveraging additional groundbreaking innovations and new technologies
	// Keep our sustainability pledge to achieve a lasting impact

Perform –
and thus keep our pledge and lay the foundation for success
	// Maintain a consistent growth narrative through our transformation agenda
	// Achieve success together with customers, consumers and patients, grow faster than the market and meet our delivery targets
	// Stabilize and simplify IT systems, and improve user experience

In addition, all members of the Board of Management are set individual targets tailored to their respective areas of responsibility. Target attainment is evaluated individually following the end of the fiscal year.

The attainment levels for the team and individual targets are evaluated by the Supervisory Board. The multiplier applied to the attainment of the financial targets can range from 0.8 to 1.2 for each individual Board of Management member. The table below shows the target attainment levels for 2023.

C 1.3/6

Individual Targets and Attainment for 2023

Board of Management member	Subject areas for individual targets	Target attainment – team and individual targets

Bill Anderson
(from April 1, 2023)
	// Establish new Dynamic Shared Ownership (DSO) operating model
	// Ensure effective management of litigations
	// Establish relationships with investors and provide an outlook
	// Develop Board of Management and top management as a high-performance team
		110%

Werner Baumann
(until May 31, 2023)
	// Implement the five-point plan for glyphosate
	// Prepare and support the new CEO during the onboarding phase
	// Optimally support the Supervisory Board during the transition phase
	// Actively manage sustainable performance and capital market communication
		100%

Sarena Lin
(until August 31, 2023)
	// Advance the cultural transformation of Bayer
	// Implement the transformation of HR processes and tools
	// Advance the strategy and innovation management
	// Ensure a successful CEO transition
		100%

Wolfgang Nickl	// Steer operations to attain financial KPIs and optimize refinancing activities
	// Improve business-critical areas in the business units and functions
	// Contribute to effective stockholder engagement and communication
	// Ensure a successful CEO transition
		110%

Stefan Oelrich	// Increase pipeline transparency
	// Successfully implement the goals of the "True North Now" strategy
	// Advance the launch of new products
	// Ensure a successful CEO transition
		105%

Heike Prinz
(from September 1, 2023)
	// Redefine HR fundamentals for DSO
	// Implement the objectives of the HR transformation
	// Work closely with the employee representatives
	// Ensure talent retention and development within the framework of DSO
		100%

Rodrigo Santos	// Accelerate growth and investment
	// Advance digital business models and central innovation projects
	// Advance sustainability, engagement and capital market communication
	// Ensure a successful CEO transition
		105%

Heiko Schipper	// Successfully implement the "Fit to Win" program
	// Strengthen the innovation pipeline
	// Help shape and support corporate initiatives
	// Ensure a successful CEO transition
		110%

Payment of the short-term variable compensation (STI)
The STI is paid out in the following year at the earliest possible opportunity. For 2023, it is calculated as follows:

C 1.3/7

Short-Term Variable Compensation in 2023 at a Glance

		Target attainment					
	Target amount (€)	Group component I "cEPS"	Group component II "FCF"	Divisional component	Individual performance factor	Total	Payout amount (€)
Board of Management members serving as of Dec. 31, 2023							
Bill Anderson[1]	1,518,750	0.0%	0.0%	25.9%	1.10	9.50%	144,281.25
Wolfgang Nickl	810,000			25.9%	1.10	9.50%	76,950.00
Stefan Oelrich	837,000			35.0%	1.05	12.25%	102,532.50
Heike Prinz[2]	270,000			25.9%	1.00	8.63%	23,301.00
Rodrigo Santos	837,000			0.0%	1.05	0.00%	–
Heiko Schipper	810,000			101.5%	1.10	37.22%	301,482.00
Former Board of Management members							
Werner Baumann[3]	665,625	0.0%	0.0%	25.9%	1.00	8.63%	57,443.44
Sarena Lin[4]	540,000			25.9%	1.00	8.63%	46,602.00

[1] Prorated STI from April 1, 2023 (start of BoM appointment)
[2] Prorated STI from September 1, 2023 (start of BoM appointment)
[3] Prorated STI until May 31, 2023 (termination of BoM appointment)
[4] Prorated STI until August 31, 2023 (termination of BoM appointment)

1.3.3 Long-term stock-based cash compensation (LTI) for 2023

Members of the Board of Management are eligible to participate in the annual tranches of the four-year stock-based compensation program Aspire on the condition that they purchase a certain number of Bayer shares – determined for each individual according to specific rules – as a personal investment within a four-year period and hold them until two years after their term of service ends. In the event of a Board of Management member stepping down before the end of his or her term of office, individual arrangements are usually agreed for the LTI tranches granted in that year and in preceding years.

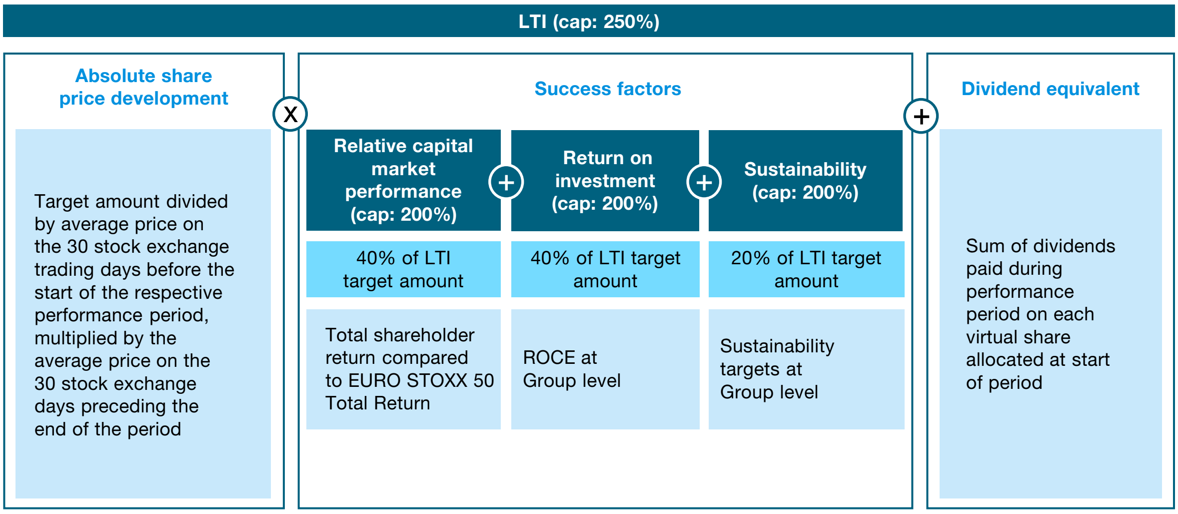
Since 2020, the annual Aspire 3.0 tranches have been allocated in the form of virtual shares with a performance period of four years for each tranche. The number of virtual shares conditionally allocated is calculated by multiplying base compensation by the contractually agreed target rate and then dividing by the arithmetic mean of the XETRA closing prices for Bayer stock on the 30 stock exchange trading days immediately preceding the start of the respective performance period.

The final number of virtual shares depends on the target attainment levels for the three components: relative capital market performance, return on investment and sustainability. These three components have weightings of 40%, 40% and 20%, respectively. The sustainability component was introduced in 2021. For the tranches allocated in fiscal 2020, the relative capital market performance and the return on investment therefore each have a 50% weighting. To determine the final number of virtual shares, the conditionally allocated number of virtual shares is multiplied by the weighted total target attainment of the three (or two, as the case may be) components.

The payout is calculated by multiplying the final number of virtual shares by the arithmetic mean of the XETRA closing prices for Bayer stock on the 30 stock exchange trading days immediately preceding the end of the performance period. In addition, the participants receive a dividend equivalent based on the sum of the dividends paid on each conditionally allocated virtual share during the four-year period. The components of the long-term variable cash compensation (LTI) are shown in the graphic below.

C 1.3/8

Components of Long-Term Variable Cash Compensation (LTI)

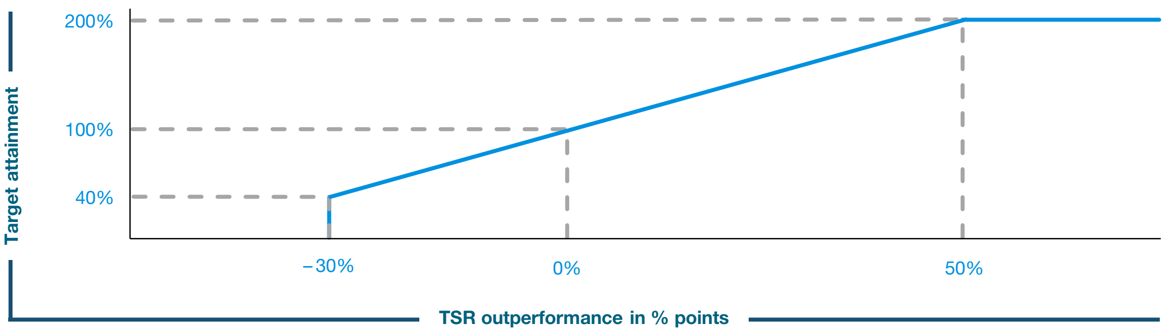


Relative capital market performance

Relative capital market performance is determined by the difference between Bayer's total shareholder return (TSR) and the EURO STOXX 50 Total Return, which serves as the benchmark index. The TSR shows how Bayer shares performed over the four-year performance period, including relative share price development and hypothetically reinvested gross dividends. This takes account of Bayer's capital market performance in relation to the EURO STOXX 50 Total Return. The initial and final values for calculating the TSR are based on the arithmetic mean of the XETRA closing prices for Bayer stock on the 30 stock exchange trading days immediately preceding the start and the end of the respective four-year performance period. The final value also includes the hypothetically reinvested gross dividends during that time. Target attainment is determined from the difference between Bayer's TSR over the period and that of the EURO STOXX 50 Total Return. If the difference is zero – i.e., performance is on a par with that of the index – target attainment is 100%. If the difference is more than –30 percentage points, target attainment is 0%. If the difference equals –30 percentage points, target attainment is 40%. If the difference is +50 percentage points or more, target attainment is 200%. The target attainment curve for the relative TSR target is given in the graphic below.

C 1.3/9

Target Attainment Function for Relative TSR



The four-year performance period of the 2020 Aspire 3.0 tranche ended in 2023. The TSR for this period was –45.29% for Bayer and 29.99% for the EURO STOXX 50 Total Return, resulting in a TSR outperformance of –75.28 percentage points. This corresponds to a target attainment level of 0%.

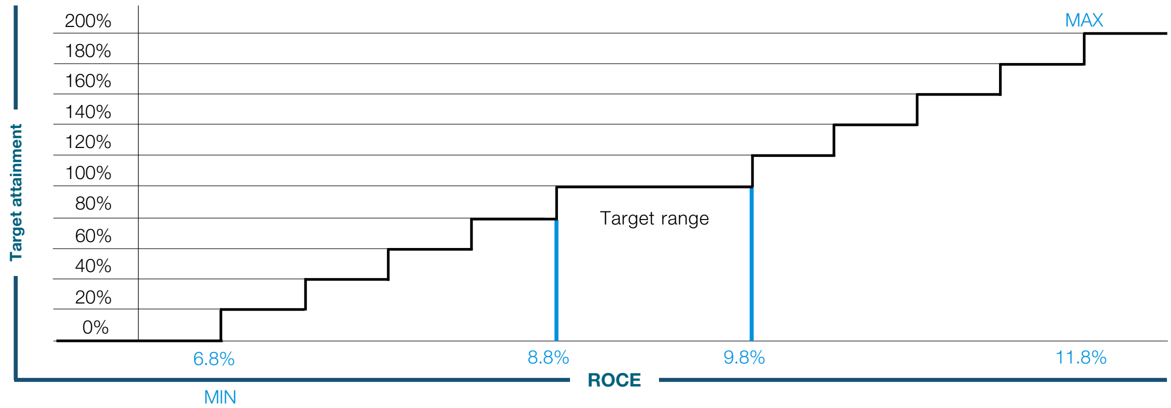
Return on investment

The return on investment is based on the return on capital employed (ROCE) at Group level. The annual comparison of the ROCE to the weighted average cost of capital indicates the value generated by the company. The ROCE is a metric that is applied as part of Bayer's corporate steering system. At the start of each tranche, the Supervisory Board sets a minimum value, a target corridor, a maximum value and additional benchmarks for ROCE in the final year of the four-year performance period. The minimum value is based on the weighted average cost of capital (WACC) on the date the respective tranche is issued. The target corridor for 100% target attainment is based on the WACC and an ambitious premium. At the end of the four-year performance period, the ROCE achieved in the final year of the performance period is compared to the target corridor set for that tranche of the LTI. If the target corridor has been achieved, target attainment is 100%. If performance is above or below the target corridor, target attainment corresponds to the target function within an interval of 0% to 200%.

The graphic below shows the minimum value, target value and maximum value for the 2020 tranche, the performance period for which ended in 2023:

C 1.3/10

Payout Curve for ROCE



For the 2020 tranche, an ROCE target of 9.3% was set for return on investment in 2023. Actual ROCE came in at 0.7%, corresponding to a target attainment level of 0%.

Sustainability

Starting with the 2021 tranche, the Supervisory Board defines specific sustainability targets for the four-year performance period that are taken into account with a weighting of 20%. Sustainability targets at both divisional and Group level can be taken into account.

In setting the sustainability targets, the Supervisory Board took care to ensure that these are aligned with the Sustainable Development Goals (SDGs) of the United Nations as a minimum, and are also in step with international best practice, such as the Science Based Targets initiative (SBTi), with respect to how they are determined, measured and reviewed. Furthermore, they are an integral part of the business strategy, providing access to new customer groups and contributing to greater supply security, for example. All the sustainability targets below are given the same weighting. The Supervisory Board also set a minimum value, a target corridor and a maximum value for the individual sustainability targets. If performance is above or below the target corridor, the target attainment corresponds to a target function within an interval of 0% to 200%.

C 1.3/11

Nonfinancial Group Targets Through 2030

Target[1]	Target for 2030
Number of smallholder farmers in low- and middle-income countries supported by products, services and partnerships	100 million
Number of women in low- and middle-income countries who have their need for modern contraception satisfied due to interventions supported by Bayer	100 million
Number of people in underserved[2] communities whose self-care is supported by interventions from Bayer	100 million
Scope 1 and 2[3] greenhouse gas emissions	42% decrease[4, 6]
Scope 3 greenhouse gas emissions from relevant[7] categories	12.3% decrease[5, 6]
Offsetting of remaining Scope 1 and 2 greenhouse gas emissions[8]	100%

[1] A more detailed description of the calculation methodologies is published on our website www.bayer.com/en/sustainability.
[2] Economically or medically
[3] Covering Scope 1 and 2 emissions (market-based) of sites that have an energy consumption in excess of 1.5 TJ
[4] Corresponding to the sustainability target of limiting global temperature rise to below 1.5°C above pre-industrial level
[5] Corresponding to the sustainability target of limiting global temperature rise to below 2°C above pre-industrial level
[6] By the end of 2029
[7] In accordance with the criteria set out by the Science Based Targets initiative, the Scope 3 categories relevant for our goal include emissions in the following categories: (1) purchased goods and services, (2) capital goods, (3) fuel- and energy-related activities, (4) (upstream) transportation and distribution, and (6) business travel.
[8] To be offset by purchasing certificates from verified climate protection projects, primarily in forestry and agriculture

The setting of the individual sustainability targets and the attainment thereof will be reported on in the corresponding Compensation Report following the end of the performance period. Where applicable, any adjustments the Supervisory Board makes to sustainability target values will also be explained, along with the reasoning behind those changes.

Payment of the 2020 tranche of Aspire 3.0

The payment takes place in the following year at the earliest possible opportunity. For the 2020 tranche, it is calculated as follows:

C 1.3/12

Aspire Payout Percentages

	2020 tranche
Bayer stock starting price	€69.95
Bayer stock TR final price[1]	€38.27
Bayer stock TR performance	**–45.29%**
EURO STOXX 50 TR starting value	7,949.64
EURO STOXX 50 TR final value	10,333.58
EURO STOXX 50 TR performance	**29.99%**
Performance factor – relative capital market performance	**0%**
Performance factor – return on investment (ROCE)	**0%**
Dividend equivalent	**€9.20**
Payout percentage	**13.15%**

[1] Total return (TR), including reinvested dividends (€32.77 + €5.50)

Ongoing tranches of long-term variable cash compensation (LTI)

The following table provides an overview of the ongoing tranches for serving members of the Board of Management of Bayer AG in 2023:

C 1.3/13

Overview of LTI Tranches of Board of Management Members Serving as of Dec. 31, 2023

Overview of LTI tranches allocated

		Target amount (€)	Bayer stock starting price (€)	No. of conditionally allocated virtual shares[1]	Target attainment for performance component[2]	Bayer stock TR final price (€)	Total dividends per virtual share (€)	Payout percentage	Payout amount[3] (€)
2020 Aspire 3.0 tranche (Jan. 1, 2020 – Dec. 31, 2023)	**Wolfgang Nickl**	1,194,000	69.95	17,069	0%	38.27	9.20	13.15%	157,011.00
	Stefan Oelrich	1,273,500		18,206					167,465.25
	Heiko Schipper	1,194,000		17,069					157,011.00
2021 Aspire 3.0 tranche (Jan. 1, 2021 – Dec. 31, 2024)	Wolfgang Nickl	1,198,800	47.99	24,980	The performance period of the 2021 Aspire 3.0 tranche will end on Dec. 31, 2024				
	Stefan Oelrich	1,278,600		26,643					
	Heiko Schipper	1,198,800		24,980					
2022 Aspire 3.0 tranche (Jan. 1, 2022 – Dec. 31, 2025)	Wolfgang Nickl	1,440,000	46.37	31,055	The performance period of the 2022 Aspire 3.0 tranche will end on Dec. 31, 2025				
	Stefan Oelrich	1,488,000		32,090					
	Rodrigo Santos[4]	1,488,000		32,090					
	Heiko Schipper	1,440,000		31,055					
2023 Aspire 3.0 tranche (Jan. 1, 2023 – Dec. 31, 2026)	**Bill Anderson[5]**	3,375,000	52.15	64,717	The performance period of the 2023 Aspire 3.0 tranche will end on Dec. 31, 2026				
	Wolfgang Nickl	1,440,000		27,613					
	Stefan Oelrich	1,488,000		28,533					
	Heike Prinz[6]	1,200,000		23,011					
	Rodrigo Santos[4]	1,488,000		28,533					
	Heiko Schipper	1,440,000		27,613					

[1] The number of conditionally allocated virtual shares is determined by dividing the LTI target value by the average share price over the preceding 30 stock exchange trading days before the tranche is issued.

[2] Target attainment for Aspire 3.0 is based on weighted target attainment for the three performance criteria “Relative capital market performance,” “Return on investment” and (since fiscal 2021) “Sustainability.”

[3] Shown here is the amount actually paid out. Due to system-related rounding differences, the parameters shown here may result in a payout amount that deviates from the sum actually paid out.

[4] LTI tranches granted to Rodrigo Santos prior to his appointment to the Board of Management are not shown. When each performance period comes to an end, the respective tranche will be shown in the “Compensation Awarded and Due” table.

[5] Prorated entitlement (45/48) due to join date of April 1, 2023

[6] LTI tranches granted to Heike Prinz prior to her appointment to the Board of Management are not shown. The 2023 LTI tranche is therefore shown on a prorated basis beginning with her appointment to the Board of Management as of September 1, 2023. When each performance period comes to an end, the respective tranche will be shown in the “Compensation Awarded and Due” table.

In line with the recommendation of the German Corporate Governance Code, already allocated LTI tranches are paid out according to the originally agreed targets at the end of the contractually specified performance period should a Board of Management member's service contract be terminated. The following table shows the ongoing tranches for the former members of the Board of Management of Bayer AG:

C 1.3/14

Overview of LTI Tranches of Former Board of Management Members

Overview of LTI tranches allocated

		Target amount (€)	Bayer stock starting price (€)	No. of conditionally allocated virtual shares[1]	Target attainment for performance component[2]	Bayer stock TR final price (€)	Total dividends per virtual share (€)	Payout percentage	Payout amount[3] (€)
2020 Aspire 3.0 tranche (Jan. 1, 2020 – Dec. 31, 2023)	**Werner Baumann**	2,502,300	69.95	35,773	0%	38.27	9.20	13.15%	329,052.45
	Liam Condon	1,440,750		20,597					189,458.63
	Kemal Malik	1,189,744		17,008					156,451.30
2021 Aspire 3.0 tranche (Jan. 1, 2021 – Dec. 31, 2024)	Werner Baumann	2,512,350	47.99	52,352	The performance period of the 2021 Aspire 3.0 tranche will end on Dec. 31, 2024				
	Liam Condon	1,446,450		30,141					
	Sarena Lin[4]	1,098,900		22,899					
	Kemal Malik	1,284,923		26,775					
2022 Aspire 3.0 tranche (Jan. 1, 2022 – Dec. 31, 2025)	Werner Baumann	2,840,000	46.37	61,246	The performance period of the 2022 Aspire 3.0 tranche will end on Dec. 31, 2025				
	Sarena Lin	1,440,000		31,055					
2023 Aspire 3.0 tranche (Jan. 1, 2023 – Dec. 31, 2026)	Werner Baumann	2,840,000	52.15	54,458	The performance period of the 2023 Aspire 3.0 tranche will end on Dec. 31, 2026				
	Sarena Lin	1,440,000		27,613					

[1] The number of conditionally allocated virtual shares is determined by dividing the LTI target value by the average share price over the preceding 30 stock exchange trading days before the tranche is issued.
[2] Target attainment for Aspire 3.0 is based on weighted target attainment for the three performance criteria "Relative capital market performance," "Return on investment" and (since fiscal 2021) "Sustainability."
[3] Shown here is the amount actually paid out. Due to system-related rounding differences, the parameters shown here may result in a payout amount that deviates from the sum actually paid out.
[4] Prorated entitlement (11/12) due to join date of February 1, 2021

1.3.4 Fringe benefits

Fringe benefits include costs assumed by the company for health screening and various work-related insurance policies. Each member of the Board of Management has access to a company car, including a driver, for business and a reasonable amount of private use, or receives a corresponding budget. In addition, the company pays the cost of security installations at each member's private residence. Work-related moving expenses are either individually reimbursed or compensated in the form of a flat-rate allowance. Any indemnity payments to new members of the Board of Management for variable compensation forfeited on termination of previous employment also constitute fringe benefits.

1.3.5 Pension entitlement/installment

Members of the Board of Management appointed after January 1, 2020, are not entitled to a company pension plan but instead receive a pension installment, which is paid out directly. The pension installment is equivalent to 40% of the respective base compensation. For the company, this avoids all the interest-rate and biometric risks involved in financing a pension entitlement, and also eliminates the complex actuarial calculations and administrative procedures involved. In addition, it means that the members of the Board of Management are responsible for making their own pension arrangements.

Members of the Board of Management appointed prior to January 1, 2020, retain their contribution-based pension entitlements. Bayer makes company contributions to complement the personal contributions of 2% up to the ceiling for statutory pension contributions in Germany. The company contributions are currently set at 8% to Bayer-Pensionskasse or 2% to Rheinische Pensionskasse VVaG on fixed annual compensation up to the ceiling for statutory pension contributions in Germany. In addition, Bayer provides a hypothetical annual contribution equal to 42% of the amount by which the respective base compensation exceeds that ceiling. This percentage is comprised of a basic contribution of 6% and a matching contribution of 36%, which is four times the member's personal contribution of 9%. The total annual contribution is converted into a pension component according to the annuity table for the applicable tariff of the Rheinische Pensionskasse VVaG pension fund. The annual pension entitlement upon retirement is the total amount of the accumulated pension components including any investment bonus, the amount of which is determined annually based on the net return on the assets of the Rheinische Pensionskasse VVaG minus the minimum return on the contributions that is guaranteed under the tariff and approved by the German Financial Supervisory Authority (BaFin). Future pension payments are reviewed annually and adjusted in line with the respective entitlements.

If the contract of a member of the Board of Management is terminated due to permanent incapacity to work before he or she reaches the age of 60, an invalidity pension is granted.

In addition, the following arrangements are in place for members of the Board of Management who served in 2023 and were appointed prior to January 1, 2020:

// Prior to his appointment as Chairman of the Board of Management (CEO), Werner Baumann acquired rights to a fixed annual pension of €443,940 starting on his 60th birthday. As of May 1, 2016, the day he was appointed Chairman of the Board of Management (CEO), his pension was switched over to a contribution-based entitlement. In connection with this, he received an additional, vested entitlement to an annual pension of €200 thousand starting on his 60th birthday. Baumann was granted the option of receiving his pension entitlements from Bayer AG or its subsidiaries as a one-time payment (excluding the entitlements existing with the Bayer-Pensionskasse pension fund). If he exercises this option, which is available until December 31, 2027, the pension entitlements will be settled with a one-time payment in the amount of the provisions established according to IFRS.
// In view of his split contract, Heiko Schipper participates in pension plans in Germany (30%) – for his service on the Board of Management of Bayer AG – and in Switzerland (70%) – under his contract as head of Consumer Health at BCC AG in Basel – on a prorated basis. Schipper's pension entitlement in Switzerland arises from a defined benefit plan in which contributions accumulate in an account and are then disbursed as a retirement annuity.

Certain assets are administered by Bayer Pension Trust e. V. under a contractual trust arrangement (CTA) to cover pension entitlements resulting from direct commitments in Germany. This provides substantial additional security – beyond the benefits from the Pension Insurance Association – for the respective pension entitlements of the Board of Management members and other managerial employees in Germany.

The service cost according to IFRS is calculated based on contractual obligations and actuarial assumptions. It reflects the amount, calculated actuarially, that was earned by the respective Board of Management member in the respective year through their work and that was recognized through profit or loss. It corresponds to the present value of the newly earned future pension payments, and is impacted by updated actuarial adjustments. The service cost does not reflect a payout amount or payments currently being made to Board of Management members. A lower discount rate at the start of the year, higher anticipated salary and pension increases, and a shorter vesting period in years are factors that result in a higher service cost.

The current service cost for the pension entitlements of the Board of Management members recognized in 2023 according to IFRS was €1,707 thousand (2022: €2,284 thousand). The following table shows the service cost according to IFRS and the settlement or present value of the pension obligations attributable to the individual members of the Board of Management.

C 1.3/15

Pension Entitlements According to IFRS

€ thousand	Expense[1]		Present value of defined benefit pension obligation as of Dec. 31	
	2022	2023	2022	2023
Serving Board of Management members as of Dec. 31, 2023				
Contribution-based pension entitlements				
Wolfgang Nickl	276	116	799	1,044
Stefan Oelrich	284	125	772	1,023
Heiko Schipper	177	144	5,817	7,534
Former Board of Management members				
Werner Baumann[2]	1,547	1,322	18,554	21,354

[1] In the case of the contribution-based pension entitlements, the figures shown here pertain to the service cost for pension entitlements according to IFRS.
[2] The service cost for the pension entitlements earned in the period up until his departure amounted to €458 thousand. The service cost for the pension component granted in conjunction with his termination agreement amounted to €864 thousand.

The service cost according to IFRS can therefore fluctuate from one year to the next. The existing pension entitlements of a Board of Management member cannot legally be unilaterally adjusted by Bayer.

1.3.6 Caps on variable compensation components and total compensation

If targets are not attained, variable compensation can fall to as low as zero. However, if targets are clearly exceeded, the payout is limited to 200% (STI cap) or 250% (LTI cap) of the individual target amount.

The Supervisory Board has set an absolute amount in euros for the maximum total compensation granted in a fiscal year pursuant to Section 87a, Paragraph 1, Sentence 2, No.1 of the German Stock Corporation Act. The maximum total annual compensation is €12 million for the Chairman of the Board of Management (CEO) and €7.5 million for the other members of the Board of Management. The maximum total compensation for a fiscal year includes all fixed and variable compensation components:

// Base compensation
// Fringe benefits
// Short-term variable cash compensation (STI)
// Long-term variable cash compensation (LTI)
// Pension installment or service cost according to IFRS for pension entitlement

Compliance with the specified thresholds for the maximum total compensation of Board of Management members cannot be reported on conclusively until all compensation components granted for a given fiscal year have been paid out. This means that for fiscal years 2021 to 2023, this can only be reported on after expiration of the respective LTI four-year performance periods.

The respective actual compensation levels for the 2020 reference year were significantly below the established maximum compensation levels for all Board of Management members.

1.3.7 Malus and clawback provisions for variable compensation

In the event of gross misconduct or misrepresentation in financial reporting, the Supervisory Board has the discretion to withhold the STI and LTI for fiscal years from 2020 onward (malus) or – if these have already been paid out – to require that they be repaid to the company (clawback).

In the event that a member of the Board of Management violates a substantial duty of care, significant obligations under his or her service contract, or other important operating principles such as those prescribed by the Code of Conduct for Members of the Board of Management or the Corporate Compliance Policy, the Supervisory Board may, in the proper exercise of its discretion, withhold all or part of the variable compensation that has not yet been paid out (malus). The Supervisory Board may, in the proper exercise of its discretion, also require that all or part of any gross amount that has already been paid out be repaid to the company (clawback).

Moreover, the members of the Board of Management are required to repay variable compensation already paid out if it is subsequently established that the audited and approved consolidated financial statements on which the calculation of the payout for fiscal years from 2020 onward was based were defective, with the amount to be repaid reflecting the corrections to be made. This applies even if the defectiveness of the consolidated financial statements is not attributable to any fault on the part of the members of the Board of Management. Irrespective of the above, a legal basis also exists for payment reductions or regress in the event of a damaging breach of duty by members of the Board of Management.

In 2023, the Supervisory Board did not see any cause to reduce any variable compensation that had not yet been paid out (malus) or reclaim variable compensation that had already been paid out (clawback).

1.3.8 Share Ownership Guidelines

The Bayer Share Ownership Guidelines are also an integral factor in the compensation system. They serve to further align the interests of the Board of Management with those of our stockholders and to strengthen sustainable development. Under the Bayer Share Ownership Guidelines, members of the Board of Management are required to build substantial positions in Bayer shares within four years of joining the Board. They must purchase shares to the value of 200% of base compensation in the case of the Chairman (CEO) and 100% in the case of the other members of the Board of Management, and retain them for the remainder of their service on the Board of Management and for two years thereafter. If they cannot provide evidence of this share ownership, they will not be entitled to payment of the LTI. The virtual shares allocated as part of the LTI program do not count toward the number of Bayer shares to be purchased under the Share Ownership Guidelines.

An overview of the current Share Ownership Guidelines can be found below:

C 1.3/16

Share Ownership Guidelines – Status

Serving Board of Management members as of Dec. 31, 2023

Board of Management member	Target (% of base compensation)	End of position-building phase	Status
Bill Anderson	200%	March 31, 2027	In progress
Wolfgang Nickl	100%	April 25, 2022	Fulfilled
Stefan Oelrich	100%	October 31, 2022	Fulfilled
Heike Prinz	100%	August 31, 2027	In progress
Rodrigo Santos	100%	December 31, 2025	In progress
Heiko Schipper	100%	February 28, 2022	Fulfilled

1.3.9 Entitlements upon termination of service on the Board of Management

If the service contract of a member of the Board of Management is terminated before the end of the term of office – other than for cause – at the company’s instigation, his or her entitlements under the service contract are fulfilled until the termination date.

Payments of variable compensation are made on the dates and at the conditions originally agreed, and are not brought forward. In doing so, Bayer observes the principles of good corporate governance: LTI allocations already granted are paid out to departing Board of Management members according to the original payment plans and calculated according to the previously agreed rules.

In line with the recommendations of the German Corporate Governance Code, the service contracts of the members of the Board of Management contain the provision that payments upon termination of service shall not exceed twice the annual compensation or the compensation amount for the remaining term of the contract if this is lower.

Change of control

To ensure their independence, members of the Board of Management are also entitled to a severance payment in the event of a change of control as defined in the German Securities Acquisition and Takeover Act, provided certain narrow conditions are met. The entitlement to a severance payment only arises if the service contract is terminated by mutual agreement at the company’s instigation or if the position of the Board of Management member is significantly affected by the change of control and he or she gives notice of termination within 12 months of the date of the change of control. The position of the Board of Management member is significantly affected if, in particular, one of the following conditions is fulfilled:

// Significant changes in the company’s strategy
// Significant changes in his or her own area of activity
// Significant changes in the company’s legal form

In these cases, members of the Board of Management are entitled to a severance payment of 250% of annual base compensation, though this must not exceed the compensation for the remaining term of the respective contract. This entitlement does not exist if termination takes place for cause as defined in Section 626 of the German Civil Code.

Post-contractual noncompete agreements

Post-contractual noncompete agreements are in place with the members of the Board of Management, providing for indemnity payments to be made by the company for the two-year noncompete period. The indemnity payment for each of the two years amounts to 100% of a member’s average base compensation for the 12 months preceding his or her departure. In the event a service contract is terminated early, any severance payment for the remaining part of the original term of the contract is deducted from the indemnity payment. Upon contract termination, the company may waive the post-contractual noncompete agreement, in which case no indemnity is paid.

Unfitness for work

In the event of temporary unfitness for work, members of the Board of Management continue to receive their contractually agreed compensation. If a Board of Management member has been continuously unfit for work for at least 18 months and is likely to be permanently incapable of fully performing his or her duties (permanent incapacity to work), the Supervisory Board may terminate his or her service contract early.

1.3.10 Payment for service on governance bodies and third-party compensation

Any compensation a member of the Board of Management receives for service on the supervisory board of a Bayer Group company is deducted from his or her base compensation. Any membership in a supervisory board of a company outside the Bayer Group must be approved in advance by the Supervisory Board. Where a member of the Board of Management serves on the supervisory board of a company outside the Bayer Group, the Supervisory Board of Bayer Aktiengesellschaft decides whether and to what extent a deduction is to be made. No deductions are being made for Board of Management members currently serving on external supervisory boards.

No member of the Board of Management received compensation from a third party in 2023 for serving on their management and/or supervisory boards.

1.4 Individual Board of Management compensation levels in 2023

1.4.1 Target compensation

The following tables show the individual target values, along with the minimum and maximum values, for the compensation components contractually agreed in 2023, including expenses for fringe benefits and pension entitlements, along with the relative shares of the individual compensation components.

C 1.4/1

Target Compensation (Part I)

	Serving Board of Management members as of Dec. 31, 2023									
	Bill Anderson[2] (Chairman/CEO)					Wolfgang Nickl (Finance)				
	Joined April 1, 2023					Joined April 26, 2018				
	2023 (€ thousand)	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)	**2023 (€ thousand)**	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)
Base compensation	1,688	15.0	1,688	1,688	–	900	26.3	900	900	900
Fringe benefits	3,985	35.5	3,985	3,985	–	156	4.6	156	156	137
Pension installment	675	6.0	675	675	–	–	–	–	–	–
Short-term variable cash compensation										
STI 2022	–	–	–	–	–	–	–	–	–	810
STI 2023	1,519	13.5	0	3,037	–	810	23.7	0	1,620	–
Long-term stock-based cash compensation										
Aspire 3.0 2022 (Jan. 1, 2022 – Dec. 31, 2025)	–	–	–	–	–	–	–	–	–	1,440
Aspire 3.0 2023 (Jan. 1, 2023 – Dec. 31, 2026)	3,375	30.0	0	8,438	–	1,440	42.0	0	3,600	–
Service cost/benefit expense (IFRS)	–	–	–	–	–	116	3.4	116	116	276
Total compensation	**11,242**	**100.0**	**6,348**	**17,823**	**–**	**3,422**	**100.0**	**1,172**	**6,392**	**3,563**

C 1.4/2

Target Compensation (Part II)

	Serving Board of Management members as of Dec. 31, 2023									
	Stefan Oelrich (Pharmaceuticals)					Heike Prinz[3] (Labor Director)				
	Joined Nov. 1, 2018					Joined Sept. 1, 2023				
	2023 (€ thousand)	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)	**2023 (€ thousand)**	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)
Base compensation	930	27.1	930	930	930	300	15.6	300	300	–
Fringe benefits	54	1.6	54	54	32	39	2.0	39	39	–
Pension installment	–	–	–	–	–	120	6.2	120	120	–
Short-term variable cash compensation										
STI 2022	–	–	–	–	837	–	–	–	–	–
STI 2023	837	24.4	0	1,674	–	270	14.0	0	540	–
Long-term stock-based cash compensation										
Aspire 3.0 2022 (Jan. 1, 2022 – Dec. 31, 2025)	–	–	–	–	1,488	–	–	–	–	–
Aspire 3.0 2023 (Jan. 1, 2023 – Dec. 31, 2026)	1,488	43.3	0	3,720	–	1,200	62.2	0	3,000	–
Service cost/benefit expense (IFRS)	125	3.6	125	125	284	–	–	–	–	–
Total compensation	**3,434**	**100.0**	**1,109**	**6,503**	**3,571**	**1,929**	**100.0**	**459**	**3,999**	**–**

C 1.4/3

Target Compensation (Part III)

	Serving Board of Management members as of Dec. 31, 2023									
	Rodrigo Santos (Crop Science)					Heiko Schipper (Consumer Health)				
	Joined Jan. 1, 2022					Joined Mar. 1, 2018				
	2023 (€ thousand)	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)	**2023 (€ thousand)**	**2023 (%)**	**Min. 2023 (€ thousand)**	**Max.[1] 2023 (€ thousand)**	2022 (€ thousand)
Base compensation	930	25.5	930	930	930	900	26.6	900	900	900
Fringe benefits	26	0.7	26	26	26	91	2.7	91	91	30
Pension installment	372	10.2	372	372	372	–	–	–	–	–
Short-term variable cash compensation										
STI 2022	–	–	–	–	837	–	–	–	–	810
STI 2023	837	22.9	0	1,674	–	810	23.9	0	1,620	–
Long-term stock-based cash compensation										
Aspire 3.0 2022 (Jan. 1, 2022 – Dec. 31, 2025)	–	–	–	–	1,488	–	–	–	–	1,440
Aspire 3.0 2023 (Jan. 1, 2023 – Dec. 31, 2026)	1,488	40.7	0	3,720	–	1,440	42.5	0	3,600	–
Service cost/benefit expense (IFRS)	–	–	–	–	–	144	4.3	144	144	177
Total compensation	**3,653**	**100.0**	**1,328**	**6,722**	**3,653**	**3,385**	**100.0**	**1,135**	**6,355**	**3,357**

[1] The maximum figures shown here do not yet take into account the caps on total compensation.
[2] Bill Anderson's fringe benefits include a one-time indemnity payment of €3.8 million for forfeited compensation entitlements from his previous employer, customary fringe benefits, expenditures for relocation and accommodation expenses of up to €200 thousand provisionally covered by the company, and the costs of German language courses for his wife.
[3] Heike Prinz' fringe benefits for 2023 include a one-time relocation assistance payment of €25 thousand.

1.4.2 Compensation awarded and due

The tables below show all fixed and variable compensation components along with their respective relative shares for each member of the Board of Management. Awarded compensation encompasses compensation for services that have been fully rendered once the fiscal year ends, even though actual payment will not be made until the subsequent fiscal year. Due compensation comprises compensation that is legally due but has not yet actually been paid out to the Board of Management member.

The payout amounts for the 2023 STI and the Aspire 3.0 tranche issued in 2020 are included in the 2023 table for compensation awarded and due, since the respective Board of Management member had fully rendered the services on which the respective compensation is based during the one- and four-year periods. The fact that the payouts will not actually be made until the subsequent year is overlooked in order to present the link between the compensation and performance of the Board of Management in the same period.

Werner Baumann and Sarena Lin stepped down from the Board of Management of Bayer AG by mutual agreement effective May 31, 2023, and August 31, 2023, respectively. The compensation entitlements earned until the respective departure date are contained in the table for Board of Management members who stepped down in 2023. In line with the Board of Management compensation system, standard market practice and the recommendations of the German Corporate Governance Code (especially G. 13), Werner Baumann and Sarena Lin have been granted compensation for the remaining terms of their service contracts, as well as an indemnity payment due to their post-contractual noncompete agreements. The payments and compensation entitlements subsequently granted to them as former members of the Board of Management are reported separately for the sake of transparency, and are shown and explained in the table "Compensation Awarded and Due to Former Board of Management Members."

Since Werner Baumann and Sarena Lin stepped down from the Board of Management by mutual consent, Aspire commitments already granted in the past shall not be paid out until the end of the respective four-year performance period. The payouts will be based on the originally agreed conditions, and will not be brought forward. However, as the work duties required for earning the Aspire tranches were performed in full, the Aspire tranches need to be presented as awarded compensation according to Section 162 of the German Stock Corporation Act (AktG). The respective compensation data shown in the table "Compensation Awarded and Due to Former Board of Management Members" merely reflects the provisions established based on the fair value as of December 31, 2023. Payment will not be brought forward. The actual payments at the end of the respective four-year performance period may therefore deviate considerably from the values shown.

The service cost according to IFRS is additionally shown as a part of Board of Management compensation, even though it does not constitute awarded or due compensation within the meaning of Section 162 of the Stock Corporation Act (AktG).

C 1.4/4

Compensation Awarded and Due (Part I)

	Serving Board of Management members as of Dec. 31, 2023					
	Bill Anderson[1] (Chairman/CEO) Joined April 1, 2023			Wolfgang Nickl (Finance) Joined April 26, 2018		
	2023 (€ thousand)	**2023 (%)**	**2022 (€ thousand)**	**2023 (€ thousand)**	**2023 (%)**	**2022 (€ thousand)**
Base compensation	1,688	26.0	–	900	69.7	900
Fringe benefits	3,985	61.4	–	156	12.1	137
Pension installment	675	10.4	–	–	–	–
Short-term variable cash compensation						
STI 2022	–	–	–	–	–	1,053
STI 2023	144	2.2	–	77	6.0	–
Long-term stock-based cash compensation						
Aspire 2.0 2019 (Jan. 1, 2019 – Dec. 31, 2022)	–	–	–	–	–	818
Aspire 3.0 2020 (Jan. 1, 2020 – Dec. 31, 2023)	–	–	–	157	12.2	–
Total compensation awarded and due	**6,492**	**100.0**	**–**	**1,290**	**100.0**	**2,908**
Service cost/benefit expense (IFRS)	–		–	116		276
Total compensation	**6,492**		**–**	**1,406**		**3,184**

C 1.4/5

Compensation Awarded and Due (Part II)

	Serving Board of Management members as of Dec. 31, 2023					
	Stefan Oelrich (Pharmaceuticals) Joined Nov. 1, 2018			Heike Prinz[2] (Labor Director) Joined Sept. 1, 2023		
	2023 (€ thousand)	**2023 (%)**	**2022 (€ thousand)**	**2023 (€ thousand)**	**2023 (%)**	**2022 (€ thousand)**
Base compensation	930	74.2	930	300	54.5	–
Fringe benefits	54	4.3	32	39	7.1	–
Pension installment	–	–	–	120	21.8	–
Short-term variable cash compensation						
STI 2022	–	–	862	–	–	–
STI 2023	103	8.2	–	23	4.2	–
Long-term stock-based cash compensation[3]						
Aspire 2.0 2019 (Jan. 1, 2019 – Dec. 31, 2022)	–	–	760	–	–	–
Aspire 3.0 2020 (Jan. 1, 2020 – Dec. 31, 2023)	167	13.3	–	68	12.4	–
Total compensation awarded and due	**1,254**	**100.0**	**2,584**	**550**	**100.0**	**–**
Service cost/benefit expense (IFRS)	125		284	–		–
Total compensation	**1,379**		**2,868**	**550**		**–**

C 1.4/6

Compensation Awarded and Due (Part III)

	Serving Board of Management members as of Dec. 31, 2023					
	Rodrigo Santos (Crop Science) Joined Jan. 1, 2022			Heiko Schipper (Consumer Health) Joined Mar. 1, 2018		
	2023 (€ thousand)	2023 (%)	2022 (€ thousand)	2023 (€ thousand)	2023 (%)	2022 (€ thousand)
Base compensation	930	66.6	930	900	62.1	900
Fringe benefits	26	1.9	26	91	6.3	30
Pension installment	372	26.6	372	–	–	–
Short-term variable cash compensation						
STI 2022	–	–	1,360	–	–	1,151
STI 2023	–	0.0	–	301	20.8	–
Long-term stock-based cash compensation[3]						
Aspire 2.0 2019 (Jan. 1, 2019 – Dec. 31, 2022)	–	–	148	–	–	732
Aspire 3.0 2020 (Jan. 1, 2020 – Dec. 31, 2023)	68	4.9	–	157	10.8	–
Total compensation awarded and due	**1,396**	**100.0**	**2,836**	**1,449**	**100.0**	**2,813**
Service cost/benefit expense (IFRS)	–		–	144		177
Total compensation	**1,396**		**2,836**	**1,593**		**2,990**

[1] Bill Anderson's fringe benefits include a one-time indemnity payment of €3.8 million for forfeited compensation entitlements from his previous employer, customary fringe benefits, expenditures for relocation and accommodation expenses of up to €200 thousand provisionally covered by the company, and the costs of German language courses for his wife.
[2] Heike Prinz' fringe benefits include a one-time relocation assistance payment for 2023 of €25 thousand.
[3] The LTI tranches granted to Heike Prinz and Rodrigo Santos prior to their appointment to the Board of Management are included in awarded compensation.

C 1.4/7

Compensation Awarded and Due (Part IV)

	Board of Management members who stepped down in 2023					
	Werner Baumann (Chairman/CEO) Stepped down: May 31, 2023			Sarena Lin (Labor Director) Stepped down: Aug. 31, 2023		
	2023 (€ thousand)	2023 (%)	2022 (€ thousand)	2023 (€ thousand)	2023 (%)	2022 (€ thousand)
Base compensation	740	90.0	1,775	600	32.0	900
Fringe benefits	25	3.0	65	989	52.7	1,006
Pension installment	–	–	–	240	12.8	360
Short-term variable cash compensation						
STI 2022	–	–	1,861	–	–	993
STI 2023	57	7.0	–	47	2.5	–
Long-term stock-based cash compensation						
Aspire 2.0 2019 (Jan. 1, 2019 – Dec. 31, 2022)	–	–	1,739	–	–	–
Aspire 3.0 2020 (Jan. 1, 2020 – Dec. 31, 2023)	–	–	–	–	–	–
Total compensation awarded and due	**822**	**100.0**	**5,440**	**1,876**	**100.0**	**3,259**
Service cost/benefit expense (IFRS)	458		1,547	–		–
Total compensation	**1,280**		**6,987**	**1,876**		**3,259**

1.4.3 Compensation awarded and due to former Board of Management members

C 1.4/8

Compensation Awarded and Due to Former Board of Management Members (Part I)

	Werner Baumann[2] Stepped down: May 31, 2023		Sarena Lin[3] Stepped down: Aug. 31, 2023	
	2023 (€ thousand)	**2023 (%)**	**2023 (€ thousand)**	**2023 (%)**
Long-term stock-based cash compensation				
Aspire 3.0 2020 (Jan. 1, 2020 – Dec. 31, 2023) – provision[1]	329	4.8	–	–
Aspire 3.0 2021 (Jan. 1, 2021 – Dec. 31, 2024) – provision[1]	1,020	15.0	477	13.2
Aspire 3.0 2022 (Jan. 1, 2022 – Dec. 31, 2025) – provision[1]	1,601	23.5	812	22.4
Aspire 3.0 2023 (Jan. 1, 2023 – Dec. 31, 2026) – provision[1]	1,622	23.8	822	22.7
Other compensation				
Compensation for remaining term of service contract	2,243	32.9	1,514	41.7
Total compensation awarded and due[4]	**6,815**	**100.0**	**3,625**	**100.0**

C 1.4/9

Compensation Awarded and Due to Former Board of Management Members (Part II)

	Liam Condon Stepped down: Dec. 31, 2021		Dr. Hartmut Klusik[6] Stepped down: Dec. 31, 2019		Kemal Malik Stepped down: Dec. 31, 2019	
	2023 (€ thousand)	**2023 (%)**	**2023 (€ thousand)**	**2023 (%)**	**2023 (€ thousand)**	**2023 (%)**
Long-term stock-based cash compensation[5]	155	100.0	(703)	112.5	(711)	100.0
Pension payments	–	–	78	–12.5	–	–
Other compensation	–	–	–	–	–	–
Total compensation awarded and due	**155**	**100.0**	**(625)**	**100.0**	**(711)**	**100.0**

C 1.4/10

Compensation Awarded and Due to Former Board of Management Members (Part III)

	Johannes Dietsch Stepped down: May 31, 2018		Dr. Marijn Dekkers Stepped down: April 30, 2016		Prof. Dr. Wolfgang Plischke[6] Stepped down: April 29, 2014	
	2023 (€ thousand)	2023 (%)	2023 (€ thousand)	2023 (%)	2023 (€ thousand)	2023 (%)
Long-term stock-based cash compensation[5]	–	–	–	–	–	–
Pension payments	120	100.0	716	100.0	484	100.0
Other compensation	–	–	–	–	–	–
Total compensation awarded and due	**120**	**100.0**	**716**	**100.0**	**484**	**100.0**

[1] The LTI tranches previously allocated to Werner Baumann and Sarena Lin had already been earned at the time of their departure and therefore need to be presented as awarded compensation according to Section 162 of the German Stock Corporation Act (AktG). The 2020 LTI tranche will be paid out in March 2024, in the amount shown above. The values shown for the 2021, 2022 and 2023 tranches merely reflect the provisions established based on the fair value as of December 31, 2023. The tranches will not be paid out until the end of the respective performance period, and the payout will be based on the originally agreed conditions. Payment will not be brought forward. The actual payments may therefore deviate considerably from the values shown. The actual payments will be disclosed in the Compensation Report following the end of the respective performance period.

[2] "Other compensation" contains the compensation for the remaining term of Werner Baumann's service contract through April 30, 2024. This compensation exclusively covers the commitments he would have been entitled to had his service contract run for the original term. This includes base compensation, fringe benefits, STI, LTI and pension entitlements, in each case for the period June 1, 2023, until April 30, 2024. The prorated 2024 LTI tranche is subject to such a tranche actually being granted. The STI for the period June 1, 2023, until December 31, 2023, is to be paid out based on the actual level of target attainment, with the individual performance factor set at 1.0. Target attainment for both the STI for the period January 1, 2024, until April 30, 2024, and the 2024 LTI tranche was set at 100%. He already received compensation for the 2024 STI entitlements in May 2023, with a present value of €525 thousand. In addition, Baumann shall receive an indemnity payment due to the post-contractual noncompete agreement, which applies for a period of two years (June 1, 2023, until May 31, 2025). In accordance with the compensation system, this payment amounts to 100% of his base compensation for each of the two years and is offset against both the compensation for the remaining term of his service contract and future pension payments. The severance cap set out in Recommendation G.13 of the April 28, 2022, version of the German Corporate Governance Code – twice the annual compensation – is therefore not exceeded.

[3] "Other compensation" contains the compensation for the remaining term of Sarena Lin's service contract through January 31, 2024. This compensation exclusively covers the commitments she would have been entitled to had her service contract run for the original term. This includes base compensation, fringe benefits, STI, LTI and pension installment, in each case for the period September 1, 2023, until January 31, 2024. The prorated 2024 LTI tranche is subject to such a tranche actually being granted. The STI for the period September 1, 2023, until January 31, 2024, is to be paid out based on the actual level of target attainment, with the individual performance factor set at 1.0. In addition, Lin shall receive an indemnity payment due to the post-contractual noncompete agreement, which applies for a period of two years (September 1, 2023, until August 31, 2025). In accordance with the compensation system, this payment amounts to 100% of her base compensation for each of the two years and is offset against the compensation for the remaining term of her service contract. The severance cap set out in Recommendation G.13 of the April 28, 2022, version of the German Corporate Governance Code – twice the annual compensation – is therefore not exceeded.

[4] The total compensation awarded to Werner Baumann in 2023 amounted to €7,637 thousand, comprising €822 thousand as a serving Board of Management member and €6,815 thousand as a former Board of Management member, with the latter amount including the provisions shown above. The total compensation awarded to Sarena Lin in 2023 amounted to €5,501 thousand, comprising €1,876 thousand as a serving Board of Management member and €3,625 thousand as a former Board of Management member, with the latter amount including the provisions shown above. In line with the Board of Management compensation system, standard market practice and the recommendations of the German Corporate Governance Code (especially G. 13), they have been granted compensation for the remaining term of their service contracts, as well as an indemnity payment as part of their post-contractual noncompete agreements.

[5] The figure shown here is the difference between the fair value of the long-term stock-based cash compensation that was originally reported in the respective Compensation Report when the member stepped down from the Board of Management, and the actual payout amount in the year in which payment is made.

[6] Includes pension payments from Bayer-Pensionskasse VVaG

1.4.4 Compensation granted to Board of Management members who stepped down in 2023

In line with the Board of Management compensation system, standard market practice and the recommendations of the German Corporate Governance Code (especially G. 13), Werner Baumann and Sarena Lin have been granted compensation for the remaining term of their service contracts, as well as an indemnity payment as part of their post-contractual noncompete agreements. In this connection, they have both been conditionally granted a prorated allocation of the 2024 Aspire tranche (i.e., contingent on the Supervisory Board resolving to issue a 2024 tranche). With respect to the prorated allocations, Werner Baumann and Sarena Lin have been granted target amounts of 4/12 and 1/12, respectively, for the 2024 Aspire tranche. Sarena Lin has been granted 1/12 of the STI for 2024. The payout amounts will be shown as awarded compensation in the years in which payment is made. In addition, Werner Baumann has also been granted pension components for the remaining term of his service contract, with a current service cost of €864 thousand.

2. Compensation of the Supervisory Board

The Supervisory Board is compensated based on the relevant provisions of the Articles of Incorporation, which were last amended by the resolution adopted at the Annual Stockholders' Meeting on April 27, 2021.

2.1 Principles applied for Supervisory Board compensation

A company's Supervisory Board is tasked with advising and supervising the Board of Management, which directs the company and its business on its own responsibility. Pursuant to Section 113, Paragraph 1, Sentence 3 of the German Stock Corporation Act (AktG), the compensation of Supervisory Board members should bear a reasonable relation to their tasks and the company's situation. In setting Supervisory Board compensation, consideration should be given to the demands of the office of the Supervisory Board member, the time involved and the responsibility borne by the Supervisory Board members for the company. Appropriate Supervisory Board compensation ensures that a company will remain able to attract outstandingly qualified domestic and international candidates as Supervisory Board members. Supervisory Board compensation thus contributes sustainably to advancing a company's business strategy and to its long-term development.

2.2 Design of Supervisory Board compensation

The members of the Supervisory Board receive fixed annual compensation and additional compensation for chairing and membership of Supervisory Board committees, plus reimbursement of their expenses. In accordance with the recommendations of the German Corporate Governance Code, additional compensation is paid to the Chairman and Vice Chairwoman of the Supervisory Board, and for chairing and membership of committees. In addition, Supervisory Board members receive an attendance fee each time they take part in a meeting of the Supervisory Board or of a committee.

C 2.2/1

Design of Supervisory Board Compensation

Compensation element	
Fixed compensation	• Chairman: €480,000 • Vice Chairwoman: €320,000 • Ordinary member: €160,000
Compensation for committee duties	• Chairman and Vice Chairwoman of the Supervisory Board do not receive any additional compensation for membership or chairing of committees • Compensation for committee duties is paid for a maximum of three committees (highest-paying functions taken into account)
Audit Committee	• Chairman: €120,000 • Member: €60,000
Presidial Committee	• Chairman: €40,000 • Member: €20,000
Nomination Committee	• Chairman: €40,000 • Member: €20,000
Other committees	• Chairman: €60,000 • Member: €30,000
Attendance fees	• €1,500 (for each meeting attended in person, by phone or virtually)[1]

[1] If multiple meetings are held on one day, only one attendance fee is paid.

The members of the Supervisory Board have given a voluntary pledge that, in the first five years of their Supervisory Board membership, they will each purchase Bayer shares for 25% of their pretax fixed compensation, including any additional compensation for committee membership, and hold these shares for as long as they remain members. This does not apply to members who, under a service or employment contract, are prevented from purchasing shares, or who transfer at least 85% of their fixed annual compensation and additional compensation to the Hans Böckler Foundation in accordance with the rules of the German Trade Union Confederation, or whose service or employment contract requires them to transfer such compensation to their employer. If less than 85% of the fixed compensation is transferred, the voluntary pledge applies to the portion not transferred. By voluntarily pledging to invest in and hold Bayer shares, the Supervisory Board members reinforce their interest in the company's long-term success. The tables below show the components of the compensation awarded and due to each Supervisory Board member as well as the relative shares of the respective components in overall compensation. Awarded compensation encompasses compensation for services that have been fully rendered once the fiscal year ends.

2.3 Compensation awarded and due

C 2.3/1

Compensation Awarded and Due (Part I)

	Fixed compensation			Compensation for committee duties		
	2023		2022	2023		2022
Serving Supervisory Board members as of Dec. 31, 2023	**€ thousand**	**%**	**€ thousand**	**€ thousand**	**%**	**€ thousand**
Dr. Paul Achleitner	160	71.1	160	50	22.2	59
Dr. Simone Bagel-Trah	160	70.5	160	50	22.0	40
Horst Baier	160	48.1	160	150	45.0	121
Dr. Norbert W. Bischofberger	160	77.3	160	30	14.5	30
André van Broich	160	59.0	160	90	33.2	90
Ertharin Cousin	160	59.3	160	90	33.3	90
Yasmin Fahimi[1]	160	79.2	32	30	14.9	1
Dr. Barbara Gansewendt[2]	160	66.4	108	60	24.9	40
Colleen A. Goggins	160	71.1	160	50	22.2	50
Francesco Grioli[2]	160	83.3	108	20	10.4	13
Heike Hausfeld (Vice Chairwoman)[3]	320	92.5	268	–	0.0	19
Frank Löllgen	160	59.7	160	90	33.6	90
Kimberly Mathisen[4]	160	94.7	53	–	0.0	–
Andrea Sacher	160	67.2	160	60	25.2	50
Claudia Schade[2]	160	93.0	108	–	0.0	–
Heinz Georg Webers[2]	160	78.1	108	30	14.6	21
Alberto Weisser	160	60.6	160	80	30.3	73
Michael Westmeier[2]	160	93.0	108	–	0.0	–
Prof. Dr. Otmar D. Wiestler	160	67.5	160	60	25.3	60
Prof. Dr. Norbert Winkeljohann (Chairman)	480	94.3	480	–	0.0	–
Supervisory Board members who stepped down in 2022 and 2023						
Dr. Thomas Elsner[5]	–	0.0	52	–	0.0	20
Robert Gundlach[5]	–	0.0	52	–	0.0	9
Reiner Hoffmann[6]	–	0.0	117	–	0.0	13
Dr. Fei-Fei Li[7]	–	0.0	107	–	0.0	–
Petra Reinbold-Knape[5]	–	0.0	52	–	0.0	7
Michael Schmidt-Kießling[5]	–	0.0	52	–	0.0	–
Oliver Zühlke[5]	–	0.0	104	–	0.0	–

C 2.3/2

Compensation Awarded and Due (Part II)

	Attendance fees[8]			Total compensation	
	2023		2022	2023	2022
Serving Supervisory Board members as of Dec. 31, 2023	**€ thousand**	**%**	**€ thousand**	**€ thousand**	**€ thousand**
Dr. Paul Achleitner	15	6.7	23	225	242
Dr. Simone Bagel-Trah	17	7.5	24	227	224
Horst Baier	23	6.9	26	333	307
Dr. Norbert W. Bischofberger	17	8.2	20	207	210
André van Broich	21	7.8	24	271	274
Ertharin Cousin	20	7.4	24	270	274
Yasmin Fahimi[1]	12	5.9	2	202	35
Dr. Barbara Gansewendt[2]	21	8.7	17	241	165
Colleen A. Goggins	15	6.7	26	225	236
Francesco Grioli[2]	12	6.3	11	192	132
Heike Hausfeld (Vice Chairwoman)[3]	26	7.5	23	346	310
Frank Löllgen	18	6.7	21	268	271
Kimberly Mathisen[4]	9	5.3	6	169	59
Andrea Sacher	18	7.6	24	238	234
Claudia Schade[2]	12	7.0	11	172	119
Heinz Georg Webers[2]	15	7.3	12	205	141
Alberto Weisser	24	9.1	23	264	256
Michael Westmeier[2]	12	7.0	11	172	119
Prof. Dr. Otmar D. Wiestler	17	7.2	20	237	240
Prof. Dr. Norbert Winkeljohann (Chairman)	29	5.7	30	509	510
Supervisory Board members who stepped down in 2022 and 2023					
Dr. Thomas Elsner[5]	–	0.0	9	–	81
Robert Gundlach[5]	–	0.0	8	–	69
Reiner Hoffmann[6]	–	0.0	18	–	148
Dr. Fei-Fei Li[7]	–	0.0	–	–	107
Petra Reinbold-Knape[5]	–	0.0	9	–	68
Michael Schmidt-Kießling[5]	–	0.0	9	–	61
Oliver Zühlke[5]	–	0.0	11	–	115

[1] Member of the Supervisory Board since October 21, 2022
[2] Member of the Supervisory Board since April 29, 2022
[3] Vice Chairwoman of the Supervisory Board since April 29, 2022
[4] Member of the Supervisory Board since September 1, 2022
[5] Member of the Supervisory Board until April 29, 2022
[6] Member of the Supervisory Board until September 25, 2022
[7] Member of the Supervisory Board until August 31, 2022
[8] The individual figures in the table are rounded. Without rounding, attendance fees amounted to €349.5 thousand in total.

No compensation was paid or benefits granted to members of the Supervisory Board for personally performed services such as consultancy or agency services. The company has purchased insurance for the members of the Supervisory Board to cover their personal liability arising from their service on the Supervisory Board.

3. Development of Financial Performance and Annual Change in Compensation – Comparative Overview

The table below provides an overview of the development of the compensation awarded and due to current and former members of the Board of Management and Supervisory Board, the development of the average compensation of the employees, and the development of selected financial performance indicators of the Bayer Group and Bayer AG over the past five years.

Former members of the Board of Management and Supervisory Board include all members with compensation awarded or due in 2023 who stepped down from the respective board within the past 10 years.

The compensation shown below for the employees, nonmanagerial employees and overall workforce in Germany includes the employees of Bayer AG, Leverkusen, Bayer Intellectual Property GmbH, Monheim am Rhein, and Pallas Versicherung Aktiengesellschaft, Leverkusen. From 2018, the figures do not include Animal Health employees. The employees of Bayer Business Services (BBS) GmbH, Leverkusen, are accounted for within Bayer AG, Leverkusen, from January 2020.

C 3/1

Development of Compensation and Financial Performance – Comparative Overview[1]

€ thousand	2019	2020	2021	2022	2023
Serving Board of Management members in 2023					
Bill Anderson (Chairman/CEO since June 1, 2023)	–	–	–	–	6,492
Werner Baumann (Chairman/CEO until May 31, 2023)	3,687	3,978	5,702	5,440	822
Sarena Lin (until August 31, 2023)	–	–	3,709	3,259	1,876
Wolfgang Nickl	1,714	1,315	2,996	2,908	1,290
Stefan Oelrich	2,676	2,129	3,644	2,584	1,254
Heike Prinz (since September 1, 2023)	–	–	–	–	550
Rodrigo Santos	–	–	–	2,836	1,396
Heiko Schipper	2,228	2,141	3,173	2,813	1,449
Former Board of Management members					
Werner Baumann[3]	–	–	–	–	6,815
Liam Condon[2, 3]	2,523	2,104	8,249	–	155
Dr. Marijn Dekkers[2]	141	(742)	650	664	716
Johannes Dietsch[2]	(338)	(147)	(345)	12	120
Dr. Hartmut Klusik[2, 3]	5,158	72	(292)	(136)	(625)
Michael König[2]	(331)	(232)	–	–	–
Sarena Lin[3]	–	–	–	–	3,625
Kemal Malik[2, 3]	11,957	–	(363)	(223)	(711)
Erica Mann[2]	–	(49)	(282)	(131)	–
Prof. Dr. Wolfgang Plischke	431	436	439	448	484
Dieter Weinand[2]	–	(52)	(450)	(234)	–
Serving Supervisory Board members in 2023					
Dr. Paul Achleitner	204	199	237	242	225
Dr. Simone Bagel-Trah	137	133	174	224	227
Horst Baier	–	201	322	307	333
Dr. Norbert W. Bischofberger	171	166	192	210	207
André van Broich	205	200	247	274	271
Ertharin Cousin	34	133	182	274	270
Yasmin Fahimi	–	–	–	35	202
Dr. Barbara Gansewendt	–	–	–	165	241
Colleen A. Goggins	154	165	208	236	225
Francesco Grioli	–	–	–	132	192
Heike Hausfeld (Vice Chairwoman)	172	167	191	310	346
Frank Löllgen	208	200	246	271	268

C 3/1 (continued)

Development of Compensation and Financial Performance – Comparative Overview[1]

€ thousand	2019	2020	2021	2022	2023
Kimberly Mathisen	–	–	–	59	169
Andrea Sacher	–	41	160	234	238
Claudia Schade	–	–	–	119	172
Heinz Georg Webers	–	–	–	141	205
Alberto Weisser	–	–	164	256	264
Michael Westmeier	–	–	–	119	172
Prof. Dr. Otmar D. Wiestler	171	166	213	240	237
Prof. Dr. Norbert Winkeljohann (Chairman)	290	367	473	510	509
Employees					
Average compensation for employees[4]	108	106	104	122	123
Financial performance					
EBITDA before special items (€ million) (Bayer Group)[5]	11,503	11,461	11,179	13,513	11,706
Core earnings per share (€)[6]	6.40	6.39	6.51	7.94	6.39
Net income/loss (Bayer AG)	4,557	(2,547)	4,110	4,764	5,150

[1] For clarity, the table no longer contains the respective percentages.
[2] There is always a difference between the compensation awarded in previous years (due to a Board of Management member having fully performed their work duties up until their departure) and the actual payout effected years later under an LTI program. If the actual payout is lower than the awarded compensation shown for the previous years, it results in a negative amount being presented. If the payout is higher than the awarded compensation originally shown, it results in a positive amount being presented. Since the payout is only ever effected in the year after the four-year performance period ends, the above difference is not shown as awarded until the year of the payout in the case of departed Board of Management members. For serving Board of Management members, however, this takes place in the fourth year of the performance period. As such, pursuant to Section 162 of the Stock Corporation Act, no awarded compensation is usually shown for former Board of Management members in the year after they step down.
[3] During the last year of service on the Board of Management, various agreements may potentially be reached under the respective termination agreements with respect to severance payments to cover compensation components already granted as well as indemnity payments. The severance payments comprise, for example, base compensation, STI and LTI and pension entitlements granted to them under their original Board of Management contract until its termination.
[4] For technical reasons, the average compensation paid to employees is presented on an FTE basis, while Board of Management compensation is not. The average compensation of managerial and nonmanagerial employees comprises base compensation (for nonmanagerial employees under collective bargaining agreements: annual salary plus any shift bonuses and allowances depending on the position; for other employee groups: annual functional income), the annual bonus paid out in the fiscal year (short-term incentive (STI) payout based on actual target attainment in prior year), and the four-year stock-based compensation paid out in the fiscal year (where the respective employee groups are eligible to participate). For nonmanagerial employees, the 13th monthly salary and the contractually agreed vacation bonus were taken into account. Fringe benefits taken into account comprised employer contributions to social insurance and, for eligible employee groups, the budget provided for a company car. Expenditures for other fringe benefits (such as home security equipment or indemnity payments for lapsed variable compensation components granted by former employers) were not taken into account due to their irregular nature.
[5] 2019–2022 as originally reported, forming basis for compensation
[6] Core earnings per share from continuing operations, 2019–2022 as originally reported, forming basis for compensation

Report of the Independent Auditor

To Bayer Aktiengesellschaft, Leverkusen/Germany

We have audited the accompanying compensation report of Bayer Aktiengesellschaft, Leverkusen/Germany, (“the Company”) for the financial year from January 1 to December 31, 2023, including the related disclosures, which has been prepared to comply with Section 162 German Stock Corporation Act (AktG). We have not audited the content of the foreword by the chairman of the supervisory board that goes beyond the scope of Section 162 AktG nor the section “Overview of Compensation in 2023”.

Responsibilities of the Executive Directors and of the Supervisory Board

The executive directors and the supervisory board of Bayer Aktiengesellschaft, Leverkusen/Germany, are responsible for the preparation of the compensation report, including the related disclosures, that complies with the requirements of Section 162 AktG. The executive directors and the supervisory board are also responsible for such internal control as they consider necessary to enable the preparation of a compensation report, including the related disclosures, that is free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

Auditor’s Responsibilities

Our responsibility is to express an opinion on this compensation report, including the related disclosures, based on our audit. We conducted our audit in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). These Standards require that we fulfill the professional responsibilities and that we plan and perform the audit so that we obtain reasonable assurance as to whether the compensation report, including the related disclosures, is free from material misstatements.

An audit involves performing audit procedures in order to obtain audit evidence for the amounts stated in the compensation report, including the related disclosures. The choice of the audit procedures is subject to the auditor’s professional judgment. This includes assessing the risk of material misstatements, whether due to fraud or error, in the compensation report, including the related disclosures. In assessing these risks, the auditor considers the system of internal control, which is relevant to preparing the compensation report, including the related disclosures. Our objective is to plan and perform audit procedures that are appropriate in the circumstances, but not to express an audit opinion on the effectiveness of the Company’s system of internal control. An audit also comprises an evaluation of the accounting policies used, of the reasonableness of accounting estimates made by the executive directors and the supervisory board as well as an evaluation of the overall presentation of the compensation report, including the related disclosures.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion

In our opinion, on the basis of the knowledge obtained in the audit, the compensation report for the financial year from January 1 to December 31, 2023, including the related disclosures, complies, in all material respects, with the accounting principles of Section 162 AktG. Our audit opinion on the compensation report does not cover the content of the above-mentioned foreword by the chairman of the supervisory board that goes beyond the scope of Section 162 AktG nor the section “Overview of Compensation in 2023”.

Other Matter – Formal Audit of the Compensation Report
The audit of the content of the compensation report described in this report comprises the formal audit required under Section 162 (3) AktG including the issuance of a report on this audit. Since our audit opinion on the audit of the content is unmodified, this audit opinion includes that the disclosures required under Section 162 (1) and (2) AktG are contained, in all material respects, in the compensation report.

Other Information
The supervisory board is responsible for the other information. The other information comprises the foreword by the chairman of the supervisory board on the compensation report and the section "Overview of Compensation in 2023".

Our audit opinion on the compensation report does not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in doing so, to consider whether the other information

- is materially inconsistent with the compensation report or our knowledge obtained in the audit of the compensation report, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Intended Use of the Report
We issue this report as stipulated in the engagement letter agreed with the Company. The audit has been performed for the purposes of the Company and the report is solely intended to inform the Company about the result of the audit.

Liability
This report is not intended to be used by third parties as a basis for any (asset) decision. We are liable solely to Bayer Aktiengesellschaft, Leverkusen/Germany, and our liability is also governed by the engagement letter dated November 23/26, 2023 agreed with the Company as well as the "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (German Public Auditors and Public Audit Firms)" promulgated by the Institut der Wirtschaftsprüfer (IDW) in the version dated January 1, 2017 (IDW-AAB). However, we do not accept or assume liability to third parties.

Munich/Germany, February 23, 2024

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed:
Andreas Wermelt
Wirtschaftsprüfer
(German Public Auditor)

Signed:
Michael Mehren
Wirtschaftsprüfer
(German Public Auditor)

D Further Information

Governance Bodies

Supervisory Board

Members of the Supervisory Board held office as members of the supervisory board or a comparable supervising body of the corporations listed below (as of December 31, 2023):

Prof. Dr. Norbert Winkeljohann*
Osnabrück, Germany
(born November 5, 1957)

Chairman of the Supervisory Board effective April 2020

Member of the Supervisory Board effective May 2018

Independent management consultant

Memberships on other supervisory boards:

- Bohnenkamp AG (Chairman)
- Deutsche Bank AG (Vice Chairman)
- Georgsmarienhütte Holding GmbH
- Sievert SE (Chairman)

Heike Hausfeld
Leverkusen, Germany
(born September 19, 1965)

Vice Chairwoman of the Supervisory Board effective April 2022

Member of the Supervisory Board effective April 2017

Chairwoman of the Bayer Central Works Council

Dr. Paul Achleitner
Munich, Germany
(born September 28, 1956)

Member of the Supervisory Board effective April 2002

Investor

Memberships in comparable supervising bodies of German or foreign corporations:

- Henkel AG & Co. KGaA (Shareholders' Committee)

Dr. rer. nat. Simone Bagel-Trah
Düsseldorf, Germany
(born January 10, 1969)

Member of the Supervisory Board effective April 2014

Chairwoman of the Supervisory Board of Henkel AG & Co. KGaA and Henkel Management AG and of the Shareholders' Committee of Henkel AG & Co. KGaA

Memberships on other supervisory boards:

- Henkel AG & Co. KGaA (Chairwoman)
- Henkel Management AG (Chairwoman)
- Heraeus Holding GmbH

Memberships in comparable supervising bodies of German or foreign corporations:

- Henkel AG & Co. KGaA (Shareholders' Committee, Chairwoman)

Horst Baier**
Hanover, Germany
(born October 20, 1956)

Member of the Supervisory Board effective April 2020

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- DIAKOVERE gGmbH
- Ecclesia Holding GmbH
- Whitbread PLC (Board of Directors)

Dr. Norbert W. Bischofberger
Hillsborough, USA
(born January 10, 1956)

Member of the Supervisory Board effective April 2017

President and Chief Executive Officer of Kronos Bio, Inc.

Memberships in comparable supervising bodies of German or foreign corporations:

- Morphic Holding, Inc. (Board of Directors)

André van Broich
Dormagen, Germany
(born June 19, 1970)

Member of the Supervisory Board effective April 2012

Chairman of the Bayer Group Works Council

Chairman of the Works Council of the Dormagen site

Ertharin Cousin
Chicago, USA
(born May 12, 1957)

Member of the Supervisory Board effective October 2019

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- Allwyn North America, Inc. (formerly Camelot North America) (Board of Directors)
- Mondelēz International, Inc. (Board of Directors)

Yasmin Fahimi
Hanover, Germany
(born December 25, 1967)

Member of the Supervisory Board effective October 2022

Chairwoman of the German Trade Union Confederation

Memberships on other supervisory boards:

- Telefónica Deutschland Holding AG (effective May 2023)

Memberships in comparable supervising bodies of German or foreign corporations:

- Kreditanstalt für Wiederaufbau AöR (Board of Supervisory Directors) (effective May 2023)

Dr. Barbara Gansewendt
Essen, Germany
(born September 29, 1963)

Member of the Supervisory Board effective April 2022

Chairwoman of the Bayer Group Executives' Committee

Chairwoman of the Executives' Committee of Bayer AG Wuppertal

Colleen A. Goggins
Princeton, USA
(born September 9, 1954)

Member of the Supervisory Board effective April 2017

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- The Toronto-Dominion Bank (Board of Directors)
- IQVIA Holdings, Inc. (Board of Directors)
- SIG Combibloc Group AG (Board of Directors) (until April 2023)

Francesco Grioli
Ronnenberg, Germany
(born April 22, 1972)

Member of the Supervisory Board effective April 2022

Member of the Executive Main Board of the German Mining, Chemical and Energy Industrial Union

Memberships on other supervisory boards:

- Continental AG
- Gerresheimer AG (Vice Chairman)

Frank Löllgen
Cologne, Germany
(born June 14, 1961)

Member of the Supervisory Board effective November 2015

North Rhine District Secretary of the German Mining, Chemical and Energy Industrial Union

Memberships on other supervisory boards:

- Covestro AG
- Covestro Deutschland AG

Kimberly Mathisen
Oslo, Norway
(born May 24, 1972)

Member of the Supervisory Board effective September 2022

Chief Executive Officer of HUB Ocean

Memberships in comparable supervising bodies of German or foreign corporations:

- Aker BioMarine ASA (Board of Directors)
- Aker Horizons ASA (Board of Directors) (effective April 2023)
- Aize AS (Board of Directors)

Andrea Sacher
Berlin, Germany
(born May 8, 1981)

Member of the Supervisory Board effective September 2020

Chairwoman of the Works Council of the Berlin site

Vice Chairwoman of the Bayer Central Works Council

Claudia Schade
Leverkusen, Germany
(born December 20, 1978)

Member of the Supervisory Board effective April 2022

Chairwoman of the Works Council of the Leverkusen site

Heinz Georg Webers
Bergkamen, Germany
(born December 27, 1959)

Member of the Supervisory Board effective April 2022

Chairman of the Works Council of the Bergkamen site

Alberto Weisser
Igrejinha, Portugal
(born June 26, 1955)

Member of the Supervisory Board effective April 2021

Senior Consultant at Temasek International Pte. Ltd.

Memberships in comparable supervising bodies of German or foreign corporations:

- Linde plc (Board of Directors)
- PepsiCo, Inc. (Board of Directors)

Michael Westmeier
Leverkusen, Germany
(born August 3, 1972)

Member of the Supervisory Board effective April 2022

Chairman of the Works Council of Bayer Vital GmbH

Vice Chairman of the Bayer Group Works Council

Memberships on other supervisory boards:

- Bayer Vital GmbH

Prof. Dr. med. Dr. h. c. mult. Otmar D. Wiestler
Berlin, Germany
(born November 6, 1956)

Member of the Supervisory Board effective October 2014

President of the Hermann von Helmholtz Association of German Research Centers e. V.

Standing committees of the Supervisory Board of Bayer AG (as of December 31, 2023)

Presidial Committee/ Mediation Committee
Winkeljohann* (Chairman), Achleitner, Grioli, Hausfeld

Audit Committee
Baier** (Chairman), Gansewendt, Hausfeld, Löllgen, Weisser, Winkeljohann*

Human Resources and Compensation Committee
Winkeljohann* (Chairman), Bagel-Trah, Baier**, van Broich, Hausfeld, Sacher

Nomination Committee
Winkeljohann* (Chairman), Bagel-Trah, Goggins, Weisser

Innovation Committee
Wiestler (Chairman), Bischofberger, van Broich, Cousin, Hausfeld, Löllgen, Sacher, Winkeljohann*

ESG Committee
Cousin (Chairwoman), Achleitner, van Broich, Fahimi, Goggins, Hausfeld, Webers, Winkeljohann*

* Expert member in the field of auditing pursuant to Section 100, Paragraph 5 of the German Stock Corporation Act (AktG)

** Expert member in the field of accounting pursuant to Section 100, Paragraph 5 of the German Stock Corporation Act (AktG)

Board of Management

Members of the Board of Management held office as members of the supervisory board or a comparable supervising body of the corporations listed below (as of December 31, 2023, or the date on which they ceased to be members of the Board of Management):

William N. (Bill) Anderson
(born August 23, 1966)

Member of the Board of Management effective April 1, 2023, appointed until March 31, 2026

Chairman of the Board of Management (CEO) (effective June 1, 2023)

Wolfgang Nickl
(born May 9, 1969)

Member of the Board of Management effective April 26, 2018, appointed until April 25, 2025

Finance

Stefan Oelrich
(born June 1, 1968)

Member of the Board of Management effective November 1, 2018, appointed until October 31, 2025

Pharmaceuticals

Heike Prinz
(born September 24, 1964)

Member of the Board of Management effective September 1, 2023, appointed until August 31, 2026

Talent

Labor Director (effective September 1, 2023)

- Bayer Vital GmbH (until August 2023)

Rodrigo Santos
(born May 28, 1973)

Member of the Board of Management effective January 1, 2022, appointed until December 31, 2024

Crop Science

Heiko Schipper
(born August 21, 1969)

Member of the Board of Management effective March 1, 2018, appointed until February 28, 2025

Consumer Health

- Royal FrieslandCampina N.V.

Chairman of the Board of Management (CEO) until May 31, 2023

Werner Baumann
(born October 6, 1962)

Member of the Board of Management until August 31, 2023

Sarena Lin
(born January 9, 1971)

Transformation and Talent

Labor Director (until August 31, 2023)

- Siemens Healthineers AG (effective February 2023)

Financial Calendar

Annual Stockholders' Meeting 2024	*April 26, 2024*
Planned dividend payment day	*May 2, 2024*
Q1 2024 Quarterly Statement	*May 14, 2024*
2024 Half-Year Report	*August 6, 2024*
Q3 2024 Quarterly Statement	*November 12, 2024*
2024 Annual Report	*March 5, 2025*
Annual Stockholders' Meeting 2025	*April 25, 2025*
Q1 2025 Quarterly Statement	*May 13, 2025*

Masthead

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