Annual Report 2024

KNORR-BREMSE

Knorr-Bremse worldwide

We are proud of	with	at over	in
120	**32,000**	**100**	**30**
years of business success	employees	locations	countries

Profile

Knorr-Bremse is the global market and technology leader for braking systems and a leading supplier of other rail and commercial vehicle systems. For 120 years, we have driven sustainable innovation and connected system solutions. Our products make a crucial contribution to greater safety, efficiency, and reliability on rail and road. Knorr-Bremse focuses its innovation on pioneering transportation solutions that build on global megatrends such as urbanization, sustainability, digitalization, and mobility. These concepts are shaping the global transformation within the transportation sector and offer enticing prospects for long-term growth in the rail and commercial vehicle segments.

Key performance indicators

		2024	2023	+ / –
Revenues	**In € million**	**7,883**	**7,926**	**– 0.5 %**
EBIT	In € million	911	870	+4.7 %
EBIT margin	%	11.6	11.0	
EBIT operative	In € million	966	893	+8.2 %
EBIT margin operative	%	12.3	11.3	
Net income	In € million	477	576	–17.2 %
Return on sales after tax	%	6.1	7.3	
Earnings per share	€	2.76	3.43	–19.4 %
Incoming orders	**In € million**	**8,186**	**8,252**	**– 0.8 %**
Order book (31.12.)	In € million	7,182	7,082	+1.4 %
Free Cash Flow	**In € million**	**730**	**552**	**+32.3 %**
Operating Cash flow	In € million	1,042	915	+14.0 %
Capital expenditure	In € million	350	369	–5.1 %
Capital expenditure in % of sales	%	4.4	4.6	
R&D costs	In € million	568	544	+4.3 %
R&D costs in % of sales	%	7.2	6.9	
Total assets	**In € million**	**9,613**	**8,249**	**+16.5 %**
Equity	In € million	3,127	2,904	+7.7 %
Equity ratio	%	32.5	35.2	
ROCE	%	20.8	20.0	
Net Working Capital	days' sales	59.2	51.4	+7.8
Knorr-Bremse share				
Number of shares		161,200,000	161,200,000	
Dividend per share	€	1.75	1.64	+6.7 %
Employees		32,549	33,319	–2.3 %

Rail vehicle systems

		2024	2023	+ / –
Revenues	**In € million**	**4,044**	**3,748**	**+7.9 %**
EBIT	In € million	625	532	+17.6 %
EBIT margin	%	15.5	14.2	
EBIT operative	In € million	630	536	+17.6 %
EBIT margin operative	%	15.6	14.3	
Capital expenditure	In € million	138	116	+18.7 %
R&D costs	In € million	276	238	+15.8 %
R&D costs in % of sales	%	6.8	6.4	
Employees		17,896	17,284	+3.5 %

Commercial vehicle systems

		2024	2023	+ / –
Revenues	**In € million**	**3,842**	**4,180**	**–8.1 %**
EBIT	In € million	350	398	–12.1 %
EBIT margin	%	9.1	9.5	
EBIT operative	In € million	401	417	–3.9 %
EBIT margin operative	%	10.4	10.0	
Capital expenditure	In € million	199	241	–17.3 %
R&D costs	In € million	292	306	–4.6 %
R&D costs in % of sales	%	7.6	7.3	
Employees		13,550	15,027	–9.8 %

Contents

01

To Our Shareholders

02

Combined Management Report

03

04

Consolidated Financial Statements

Compensation Report

01

To Our Shareholders

Letter from the CEO

Dear Readers,

Crises, war and disasters – unfortunately, these were again the big buzzwords that dictated events worldwide last year. These upheavals have also posed massive challenges for our business. And yet I am delighted to be able to say to you today: Knorr-Bremse is in a very good position operationally. 2024 was another successful year for our company. I therefore wish to start by expressing my heartfelt thanks to all our colleagues worldwide on behalf of all Executive Board members. This success would not have been possible without their outstanding efforts and great commitment. All of us at Knorr-Bremse can be proud of these results.

Under the motto "One World – One KB," Knorr-Bremse is celebrating its 120th anniversary this year – a further chapter in an exceptional success story. And we are celebrating two extraordinary entrepreneurs: Georg Knorr founded Knorr-Bremse in Berlin on January 19, 1905. He started out in a modern factory with 165 employees. Georg Knorr thus laid the foundation stone. Heinz Hermann Thiele shaped the company like no other for decades and, thanks to his tireless efforts, led it to success.

Georg Knorr

Heinz Hermann Thiele

Today, we operate worldwide and are the global market leader. We have grown steadily, adapted our portfolio and responded flexibly to changes. But at our core, we have always remained true to ourselves at Knorr-Bremse: We are innovative – we act as entrepreneurs – we want to shape things.

» Knorr-Bremse is today in a very good position operationally. In 2025, we will take the BOOST strategy program to the next level, with a clear focus on sustainable and profitable growth. «

— Marc Llistosella, CEO

Knorr-Bremse achieved all its goals last year – and even surpassed some of them. That is down to a great team effort and the result of effective measures from the Group-wide BOOST strategy program, which we continued to drive systematically last year. Our record order books, a low debt-to-equity ratio, and high liquidity confirm our strong resilience and show that we are in very good financial shape. At the same time, they are the foundation for sustainable growth.

Our Rail Division RVS (Rail Vehicle Systems) chalked up record levels for revenues and order books. In addition, Rail once again accounted for a share of revenue of more than 50 percent, thus creating an important bedrock for the entire Group's further profitable growth. Our Truck Division CVS (Commercial Vehicle Systems) generated a double-digit return – even though it had to contend with a very difficult market situation. That is also a strong performance. We responded to the market doldrums at an early stage by taking countermeasures and so were able to secure our results.

Expressed in figures, this means: Knorr-Bremse's revenues remained virtually stable at around € 7.9 billion in 2024 as a whole, despite a significant weakening of the truck market and various company sales. Order intake was € 8.2 million and thus almost at the level of the previous year. With a 1.4% increase to around € 7.2 billion at the year-end the order book recorded a new all-time high.

At the same time, we also grew our profitability sharply thanks to the BOOST measures we implemented. Our operating EBIT margin grew significantly from 11.3% to 12.3%. Operating free cash flow even came in at a new record high of € 730 million. Never before in its 120-year history has Knorr-Bremse achieved such a strong operating cash flow.

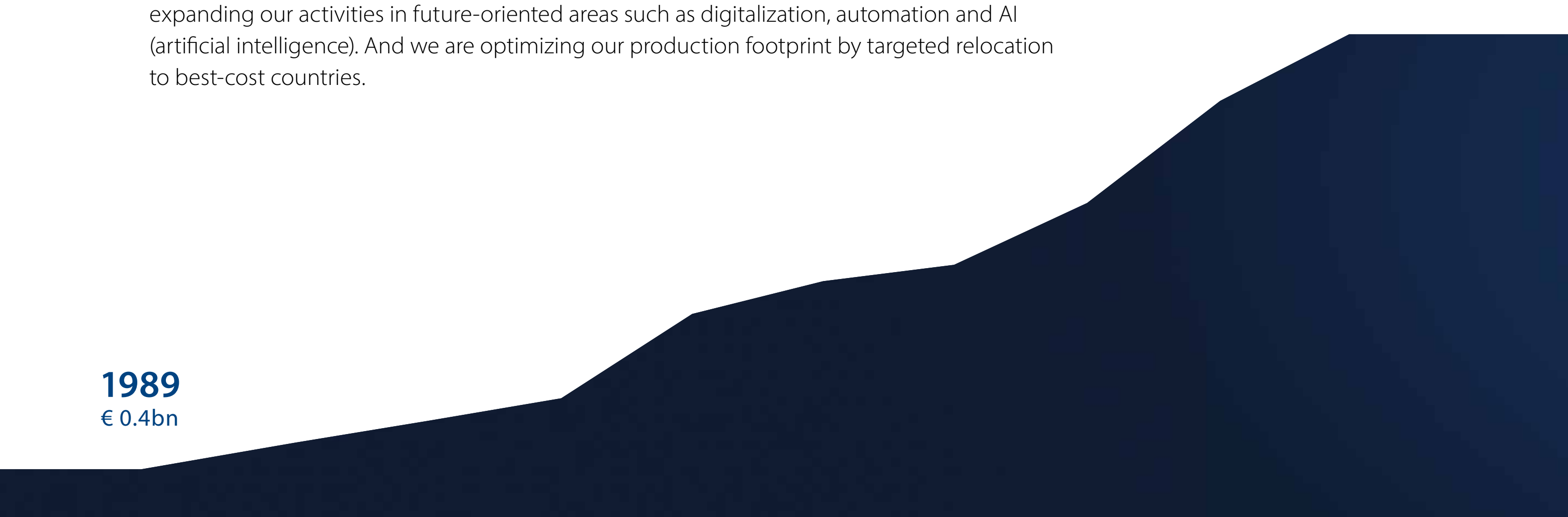
With these results we more than fulfilled our outlook for the 2024 fiscal year. In view of this performance the Executive Board and Supervisory Board will propose to the Annual General Meeting that a dividend of € 1.75 per share be paid. This is equivalent to an increase of around 7% compared with the previous year.

The basis for our success is the trust our customers place in us as a global market and technology leader. This confidence our customers display in the quality of our products and services is evidenced by the very clear successes of our two divisions: For example, our RVS Division successfully signed major international contracts with large vehicle manufacturers. Among other things, Knorr-Bremse will equip at least 246 CITYLINK streetcars from Stadler with system solutions and will be responsible for providing comprehensive aftermarket services for 32 years. Further highlights include a follow-up order from Alstom to fit 42 further Coradia Max regional trains with braking, entrance and sanitary systems. At last year's leading international trade shows, the Rail Division demonstrated its innovative strength with products including the digital electropneumatic braking system with the latest CubeControl brake control system, Cube 2.0, and the completely new digital electromechanical braking system Electroact.

Our Truck Division impressed at the leading trade shows last year with the modular SYNACT family of disk brakes, the NexTT trailer disk brake, and the newly launched GSBC brake control system, among other things. Our fully Electric Power Steering (EPS) system, an important pillar in the increasing electrification of the commercial vehicle industry and automated driving, was also at the top of the trade show guests' list.

Demand in the rail vehicle market was high in all regions. In the 2024 fiscal year, the RVS Division's revenues surpassed the € 4 billion mark for the first time to reach a record level. Operating EBIT improved sharply by 18% to € 630 million. As expected, the situation in terms of demand in the global commercial vehicle market was difficult in the three major regions of North America, Europe and China. Nevertheless, the Truck Division proved robust in the past fiscal year. Revenues remained below the figure for fiscal year 2023 at € 3.8 billion for market-related reasons. The division even bucked the market trend and improved its profitability, posting an operating EBIT margin of 10.4%.

Our rock-solid balance sheet gives us the basis for weathering the numerous economic challenges. We continue to invest in our highly lucrative aftermarket business and are steadily expanding our activities in future-oriented areas such as digitalization, automation and AI (artificial intelligence). And we are optimizing our production footprint by targeted relocation to best-cost countries.



Revenue trend between 1989 and 2024

We are fully on track with our "BOOST 2026" strategy program and, as announced, have implemented many important measures as part of our brownfield activities, including the successful streamlining of our portfolio with the sale of four investments. As a result, we have already achieved more than 60% of the planned revenue volume. Two further sell-it measures have already been initiated. Our brownfield activities also include strict cost discipline and permanent questioning of existing processes and structures.

We have now implemented more than 1,000 efficiency-enhancing BOOST measures. We are also investing in profitable future business, such as the "KB Signaling" rail signaling technology business in North America. The successful entry into the attractive and high-margin signaling technology business in the Rail Division means we can push ahead with creating our own value added and generate sustainable growth with new and digital solutions. At the same time, we are also increasing our share of revenue in the more stable and more profitable rail business and reducing our dependence on the cyclical truck market.

Today it is with a certain pride that we can say: Knorr-Bremse is excellently positioned – and that is why we are so successful even in challenging geopolitical times. We face tough competition from our international rivals day in, day out, and keep our eye on costs. Outstanding engineering performance, entrepreneurial courage, flanked by great cost discipline – this mix accounts for our success. The figures prove that we are on the right track. All of this encourages us to look to the future with optimism. In light of this, as things stand at present we expect revenues in a range between € 8.1 billion and € 8.4 billion for the 2025 fiscal year, an operating EBIT margin of between 12.5% and 13.5% and a free cash flow ranging between € 700 million and € 800 million.

We are also setting ourselves ambitious targets in relation to sustainability – and that is wholly in the interests of our shareholders, customers and employees. As a successful global player in the mobility industry, we systematically pressed ahead in 2024 with integrating ESG in our business processes, operating procedures, activities in the supply chain, and decision-making processes. This is reflected not only in our strong ESG ratings, but also in the positive development of the related metrics. For example, we reduced our Scope 1 and 2 CO_2e emissions and the corresponding emissions intensity by 20 %. With the publication of our Green Finance Framework in September – even before we issued our green bond – we continued our efforts to firmly integrate sustainability into our financing structure.

We have implemented our goals uncompromisingly – our measures are having an impact. However, we as the global market leader are not resting on what we have achieved: In 2025, we will take the BOOST strategy program to the next level, with a clear focus on sustainable and profitable growth.

I thank you for your support and trust.

Munich, March 20, 2025

Marc Llistosella
Chief Executive Office

The outlook for 2025 is based on the assumption of largely stable exchange rates and essentially stable geopolitical and macroeconomic underlying conditions.

The Executive Board

Dr. Claudia Mayfeld
Member of the Executive Board
—
Worldwide responsibility for Integrity, Legal, IP, Data Protection and HR

Bernd Spies
Member of the Executive Board
—
Worldwide responsibility for the Commercial Vehicle Systems division

Marc Llistosella
Chief Executive Officer
—
Worldwide responsibility for Strategy, Communications, Digitalization, IT, Information Security, Security, and Internal Audit

Dr. Nicolas Lange
Member of the Executive Board (since October 1, 2023)
—
Worldwide responsibility for the Rail Vehicle Systems division

Frank Markus Weber
Chief Financial Officer
—
Worldwide responsibility for Finance, Accounting, Controlling, Taxes, Treasury, M&A, Sustainability, and Investor Relations

Report of the Supervisory Board

Dear shareholders,

As the Chairman of the Supervisory Board, I wish to report to you on the Supervisory Board's work during the 2024 fiscal year which recently ended. In an economic environment that has been challenging for the commercial vehicle sector in particular, Knorr-Bremse successfully made a strong demonstration of its resilience and power and again increased its free cash flow year over year. With the global BOOST 2026 strategy program, the Executive Board and leadership team took on the major challenges at great speed and have already implemented strategically and operationally important initiatives to keep Knorr-Bremse developing successfully as a global market and technology leader and to boost its profitability. That includes the rigorous implementation of portfolio adjustment measures, too, which the Supervisory Board is overseeing closely. Despite a tense economic situation globally, our company is performing impressively with its operational strength.

We are making sure that you, our shareholders, are also included in this success. The preliminary business figures published on February 20, 2025, and the continued strong operational performance, despite the impact of restructuring, put the company in a position to propose a dividend of € 1.75 per share at the Annual General Meeting, a dividend higher than the previous year. The proposal for appropriating the net profit is therefore significantly higher than the distribution range seen in recent years, however, we have decided to offset the impact of measures such as restructuring in view of the strong operational performance.

The focuses of the Supervisory Board's work in the previous fiscal year, which are explained in detail below in the section Significant Topics of Supervisory Board Work (starting on page 15), included the acquisition of Alstom's signaling technology business and, with it, Knorr-Bremse's successful entry into the new control, command, and signaling (CCS) field of business, as well as advice on strategic measures for adjusting the portfolio and increasing profitability (brownfield) and growth initiatives (greenfield) on the part of the Executive Board as part of the BOOST project and the implementation of the modified remuneration system for the Executive Board that was approved at the Annual General Meeting.

Collaboration of the Supervisory Board and Executive Board

In the reporting period, the Supervisory Board continued to fulfill its duties pursuant to the law, the Articles of Association, and the rules of procedure with great care. The Supervisory Board was directly involved in all decisions that were of fundamental significance to the Group and complied with the relevant recommendations of the German Corporate Governance Code (GCGC). It advised the Executive Board on the leadership of the company, ongoing acquisition projects, and the realization of divestments in the Commercial Vehicle Systems division, specifically the sale of R.H. Sheppard Co. as well as the GT Group in the UK. The Supervisory Board also maintained ongoing dialog with the Executive Board on strategic initiatives such as the BOOST project in particular. At the same time, the Supervisory Board monitored the senior management of the Executive Board on the basis of regular

Dr. Reinhard Ploss,
Chairman of the Supervisory Board

reports with which it remained informed in relation to business development, planning, and risks. I particularly wish to emphasize the candid, cooperative and trusting collaboration between the Executive Board, managers, and the Supervisory Board, which is a key factor for success in these enormously dynamic times.

The principles of responsible and good corporate governance are the foundation of the Supervisory Board's work. They include a regular examination of the Supervisory Board's understanding of corporate governance, of the legal framework for the Supervisory Board's work, and of relevant developments (including the Corporate Sustainability Reporting Directive [CSRD], the German Supply Chain Due Diligence Act, and German Financing for the Future Act). The focus of its monitoring and advisory activities is on the legality, propriety, expediency, and efficiency of senior management and Group management. The subject matter and performance of the Supervisory Board's work are governed in more detail in the rules of procedure for the Supervisory Board, Audit Committee, and Executive Board, which are available on the website. The Supervisory Board is closely involved in the corporate planning and discussions of strategic projects and topics. Besides the rules of procedure, there is a list of reserved matters governing contractual arrangements and measures that require the approval of the Supervisory Board before the Executive Board can implement them. The comprehensive preliminary review and preliminary consideration partly required as a result is conducted in the committees, specifically in the Strategy Committee, the Audit Committee, or the Executive Committee – depending on the subject matter. The Supervisory Board and its committees take care to always have an appropriate information base and make decisions at their own discretion for the interests of the company. The members of the Supervisory Board are personally responsible for pursuing the training and professional development that they need for their duties. They are given the company's full support for this. On March 19, 2024, the Supervisory Board completed external ESG training focused on its specific responsibilities; on January 29, 2025, the Audit and Strategy Committees examined the CSRD reporting requirements and the strategically relevant KPIs, taking into consideration the respective investors' perspectives.

During the past fiscal year, the Executive Board regularly, immediately, and comprehensively reported to the Supervisory Board by means of written and oral reports, both inside and outside of meetings. The reports contained all relevant information on the strategic development, planning, business development within the year, position of the company, risk situation, risk management, compliance, competitors of the Commercial Vehicle Systems and Rail Vehicle Systems divisions (peers), situation in the capital market, including expectations of analysts and investors; and current events. The Supervisory Board jointly discussed with the Executive Board the business transactions important for the company and the company's further development. It was included in a timely manner in all decisions of fundamental importance for the Company. The Executive Board also informed the Supervisory Board about urgent matters between the regular meetings. As the Chairman of the Supervisory Board, I also maintained a dialog with the Executive Board between Supervisory Board meetings on the business situation and on significant business transactions of the company as part of regular business reviews. The same applies to the ongoing development of the organization and corporate culture, which are both essential factors for achieving our business targets. The strength of the leadership and culture can only be seen in the business results after significant time has passed, which makes them key drivers of the company's development. An understanding of this is highly important for the Supervisory Board so that it can judge whether the set targets are realistic at an early stage. I held regular talks with important investors on key topics and issues relating to the Supervisory Board.

1.01 MEETING ATTENDANCE OF THE SUPERVISORY BOARD MEMBERS IN FISCAL 2024

Name	Supervisory Board (full board)	Executive Committee	Audit Committee	Nomination Committee	Strategy Committee
Dr. Reinhard Ploss	7 (7)	4 (4)	(6)	2/2	4 (4)
Franz-Josef Birkeneder (Deputy Chairman)	7 (7)	4 (4)	6 (6)		**4 (4)**
Dr. Theodor Weimer (Deputy Chairman)	7 (7)	4 (4)			
Kathrin Dahnke	7 (7)		**6 (6)**	**2/2**	
Thomas Mittmann (since July 1, 2024)	3 (3)				
Dr. Sigrid Evelyn Nikutta	6 (7)				**3 (4)**
Wolfgang Nirschl	7 (7)		**3 (3)**		
Werner Ratzisberger	6 (7)	**2 (2)**	**3 (3)**		**2 (2)**
Annemarie Sedlmair	7 (7)				
Dr. Stefan Sommer	7 (7)				4 (4)
Julia Thiele-Schürhoff	7 (7)			**1/2**	**4 (4)**
Sylvia Walter	7 (7)				
Michael Jell (until June 30, 2024)	**4 (4)**	**2 (2)**			**1 (2)**
Meeting attendance in %	**97.80%**	**100%**	**100%**	**83.33%**	**89.29%**

(in parentheses: number of meetings held during the term of the respective Supervisory Board or committee member)

In the 2024 fiscal year, we maintained a consistently high attendance rate in our meetings, as we had in previous years. The average attendance at full-board meetings was nearly 98%. The full-board meetings during the reporting period were all held in person with an option for virtual attendance if good reason was given. Only two, extraordinary meetings were held purely by videoconference out of respect for the availability of all Supervisory Board members. The Executive, Nomination, and Audit Committees met solely in person though always with the possibility of virtual attendance if needed. One of the Strategy Committee's four meetings was virtual. The personal attendance records presented below are evidence of the high degree of commitment that the members of the Supervisory Board have. Supervisory Board and committee members took part in the resolutions by sending voting instructions if they were prevented from attending individual meetings. Documents for meetings were distributed in advance at an early stage for the attendees' preparation; handouts were only used for late-notice developments and changes.

Discussions of the Supervisory Board and its committees

Meetings and resolutions of the full Supervisory Board are normally prepared by the Chairman of the Supervisory Board in consultation with the Chief Executive Officer, and furthermore by the Executive Committee and, depending on the topic concerned, by the Audit and Strategy Committees. The Supervisory Board established a Mediation Committee, whose services were not needed during the reporting period. The Nomination Committee met two times during the reporting period. The committee chairs, Ms. Dahnke (Audit Committee), Dr. Sommer (Strategy Committee), and I myself (Executive Committee, Nomination Committee) provided regular reports to the Supervisory Board on the work done in the committees. The main subjects of the committees' consultations are summarized below.

The shareholder representatives (the owners' panel) and employee representatives regularly held separate advance meetings prior to the Supervisory Board meetings. Members of the Executive Board also took part in these meetings on an ad hoc basis. Internal discussions were held as needed at the end of Supervisory Board meetings without the presence of the Executive Board members.

Significant topics of Supervisory Board work

A total of seven Supervisory Board meetings were held during the reporting period, including the two-day strategy meeting. Apart from two instances, they were held in person at the Knorr-Bremse Group's locations in Munich (3), Aldersbach (1), and Budapest (1). In each of the other two cases, the Supervisory Board made decisions through a written circulation procedure after examining the matter at a prior meeting and on the basis of a pre-formulated decision proposal from the Executive Board. The following presents a chronological overview of the substantive focuses of the meetings of the full Supervisory Board:

1. At its balance sheeting meeting on March 20 and 21, 2024, the Supervisory Board discussed with the auditor the annual and consolidated financial statements for the 2023 fiscal year and the outcomes of the audit, and – based on the preceding deliberations of the Audit Committee – gave the necessary approval. The Supervisory Board seconded the Executive Board's proposal for appropriating the net profit for the 2023 fiscal year (payment of a dividend of € 1.64 per share). The Supervisory Board approved the Report of the Supervisory Board, the Corporate Governance Statement and Compensation Report, the Dependent Company Report, and the Consolidated Nonfinancial Statement. The Supervisory Board also adopted the motions for the Annual General Meeting and approved it being held virtually, the same way as in previous years. Furthermore, the Supervisory Board dealt with selected BOOST initiatives, in particular the status of divestment projects as part of the portfolio adjustment. The agenda for the balance sheet

meeting also included the regular review of recently closed M&A transactions in regard to their business case and strategic foundations. Lastly, the Supervisory Board set the remuneration targets for the Short-Term and Long-Term Incentives for the current fiscal year.

2. At the extraordinary meeting held by videoconference on April 15, 2024, the Supervisory Board gave its approval to the acquisition of the signaling business of Alstom Signaling Inc. in North America. With this acquisition, Knorr-Bremse is successfully making an entry into the highly attractive control, command, and signaling (CCS) segment of the rail market which approaches a size of approximately € 20 billion globally. For the Knorr-Bremse Rail Vehicle Systems division, the acquisition of this highly profitable business creates new prospects for profitable growth, technological competence, and future digital business models. This makes Knorr-Bremse the market leader in the rail CCS segment in the United States.

3. At its meeting on April 29, 2024, the Supervisory Board dealt with the preparation, procedure, and key content and decisions for the Annual General Meeting the next day which in particular included, among other things, the approval of the new remuneration system for the Executive Board, the extension of the authorized and conditional capital, and the authorization to acquire treasury shares which the Executive Board has not yet utilized. The proposed changes to the remuneration system, which we had already canvassed beforehand with our key investors as well as the proxies that are important for us, were approved by a 94.69% vote at the Annual General Meeting on April 30, 2024. Furthermore, the Supervisory Board examined the realization of the acquisition of Alstom's signaling technology business again (discussed above already).

4. The focuses for the two-day strategy meeting on July 4 and 5, 2024, were the strategic alignment of both divisions and of the Group as well as the strategic financial planning and core innovation projects in CVS and RVS. The framework for it was again formed by the Executive Board's BOOST 2026 program, which brings together an array of strategic initiatives as well as operational and organizational measures that are intended to ensure sustainable and profitable growth over the coming years with specific, formulated profitability targets for the 2026 fiscal year. The individual BOOST measures for which the Supervisory Board regularly examines the implementation status and bottom line potential include brownfield measures such as the consistent optimization of the product portfolio, the reduction of structural costs (SG&A), the adjustment of R&D expenditure, and the expansion of the profitable aftermarket business in both divisions as well as greenfield measures such as the examination of M&A opportunities and organic growth possibilities, including outside of core business. For decisions on and the implementation of strategic initiatives, the Supervisory Board simultaneously acts as a sparring partner and adviser for the Executive Board. Alongside a focus on the Group's and divisions' strategies, further focuses for the strategy meeting included the IT and HR strategies as well as the setup of product compliance management (PCM).

5. At its meeting on October 10, 2024, where the Supervisory Board also inspected production at the truck and rail locations in Kecskemét and Budapest, Hungary, the Executive Board reported on matters such as the implementation of the strategic initiatives in the BOOST project as well as the status of divestment projects forming part of the ongoing portfolio adjustment, specifically, the now successfully accomplished sale of the US steering business of R.H. Sheppard Co. and of the GT Emissions Group in the UK. Furthermore, the Supervisory Board had an in-depth examination of the products and innovation of both divisions, as recently also presented at leading trade fairs, and of the customers' and operators' view of them. A particular focus here was on the respective points of difference

in the customers' view when compared with comparable products from competitors. Finally, in October, the Supervisory Board also advised on the integration of the signaling technology business acquired from Alstom.

6. On December 11, 2024 (planning meeting), the Supervisory Board advised on the annual and financial planning for 2025 (the budget) and on the strategic financial planning (2026–2029) for the Group and divisions, which for the first time was put together in an integrated planning process, and approved this planning after a full discussion. For the Executive Board's 2025 Short-Term Incentive (STI), the Supervisory Board adopted the company STI targets and individual STI targets derived from the planning. The ROCE and ESG targets of the LTI tranche for 2025 to 2028, on the other hand, were only adopted at the balance sheet meeting in March 2025 as they are based on the target achievement in 2024.

On the subject of the BOOST project, the Executive Board outlined the impacts of the individual measures in absolute figures. The status of the ongoing and completed divestment projects under BOOST as well as the likely associated one-time impacts on the financial result were also discussed within the Supervisory Board. Furthermore, the Chief Compliance Officer reported to the Supervisory Board about the status of the Compliance Management System which had been audited and certified by PwC for adequacy and effectiveness for corruption prevention in March 2024.

At the meetings, the Supervisory Board and Executive Board regularly gave individuals at the next levels an opportunity to present on topics. Through this, the Supervisory Board receives a good picture of potential young talent as well as the entrenchment of topics relevant to it within the organization.

Executive Committee

The Executive Committee coordinates the work of the Supervisory Board, prepares the meetings of the full Supervisory Board, and monitors the execution of the resolutions adopted by the Supervisory Board. It is in charge of resolutions regarding transactions with members of the Executive Board, the approval of contracts with Supervisory Board members, and long-term succession planning for the Executive Board. In matters relating to the Supervisory Board, the Executive Committee makes decisions about delaying the public disclosure of insider information in accordance with Article 17 (4) Market Abuse Regulation where necessary.

A total of four meetings of the Executive Committee were held during the reporting period, each of them in person with an option for virtual attendance. The Executive Committee dealt with the preparation of the external efficiency audit of the Supervisory Board which was conducted in the first half of the year and, moreover, with the implementation of the modified Executive Board remuneration system that took effect on January 1, 2024, following approval at the Annual General Meeting; with the determination of the financial and non-financial targets and the individual targets for the Short-Term and Long-Term Incentives, and the external review of the appropriateness of the Executive Board's remuneration in the context of the extension of Mr. Llistosella's appointment as member and Chairman of the Executive Board. Furthermore, the acquisition of Knorr-Bremse shares by members of the Executive Board in accordance with the Share Ownership Guideline, overseen by the Executive Committee, was transferred to a bank acting as an external service provider so that insider risks always associated with these acquisitions are ruled out.

If the Supervisory Board was due to vote on a resolution, the Executive Committee would usually conclude its deliberations by issuing to the Supervisory Board a recommendation for the resolution. As the Chairman of the Executive Committee, I regularly reported to the Supervisory Board about the work done by the Executive Committee.

Members of the Executive Committee:
- Dr. Reinhard Ploss (Chairman)
- Franz-Josef Birkeneder
- Dr. Theodor Weimer
- Michael Jell (until June 30, 2024)
- Werner Ratzisberger (since July 5, 2024)

Audit Committee

The Audit Committee prepares Supervisory Board resolutions regarding the approval of financial statements and proposals for appropriating net profit. It takes the place of the Supervisory Board to engage auditors for specific audits. In relation to the appointment of the auditor at the Annual General Meeting, the Audit Committee proposes a recommendation to the Supervisory Board. The composition, duties, and competencies of the Audit Committee comply with the specifications of the Financial Market Integrity Strengthening Act (FISG). For example, the Chairwoman of the Audit Committee, Kathrin Dahnke, enjoys a direct right to obtain information from the heads of Internal Audit, Controlling, Risk Management, and Compliance, which are the relevant central departments. Moreover, she maintains regular and partly bilateral communication with the auditor. The information provided in the Corporate Governance Statement explains the composition of the Audit Committee (in relation to "financial experts"). Ms. Dahnke regularly reports to the full Supervisory Board about the Audit Committee's work.

The Audit Committee convened for a total of six meetings in the 2024 fiscal year. It worked on matters such as the preliminary figures for the 2023 fiscal year and the quarterly and half-yearly financial reporting. The Audit Committee examines the risk management system, internal control system, compliance management system, reports from Internal Audit, and the status of significant litigation at regular intervals. A key component of the committee's work is its involvement in the annual and consolidated financial statements, beginning with the definition of audit focus topics; as well as in approving the proposed fee for the auditor, the relevant audit reports from the auditor KPMG, the dependency report, the combined nonfinancial report (sustainability report), and the Executive Board's proposal for appropriating net profit.

Members of the Audit Committee:
- Kathrin Dahnke (Chairwoman)
- Franz-Josef Birkeneder
- Dr. Reinhard Ploss
- Werner Ratzisberger (until July 5, 2024)
- Wolfgang Nirschl (since July 5, 2024)

Strategy Committee

The Strategy Committee advises the Supervisory Board and Executive Board on core issues relating to the Group's strategy, including the Group's business policy and commercial direction. One of its focuses is the analysis and ongoing development of the commercial and rail vehicle divisions, new business ideas, and potential development prospects, which also requires alternative evaluation methods and perspectives. The committee's duties further include providing strategy advice for divestments, mergers, and acquisitions, including monitoring performance after transactions have closed. Moreover, it is also responsible for performing strategic evaluations of the Knorr-Bremse Group's global footprint of locations and subsidiaries and discussing potential improvement with the Executive Board. The Strategy Committee also supports the Executive Board with the development and evaluation of proposals for managing the company's innovation. It ultimately has subject matter responsibility for certain sustainability-related topics, alongside the Audit Committee which oversees the sustainability reporting. For instance, the Strategy Committee advises the Executive Board on the systematic identification of the company's risks and opportunities that are associated with social and environmental factors, and on the appropriate consideration of environmental and social objectives in the corporate governance.

The Strategy Committee met for four meetings during the reporting period, three of which were held in person and one purely virtually. Among other items, it dealt with the BOOST project and the implementation of the brownfield measures defined by the Executive Board, including the portfolio adjustments measures passed; it also reviewed the status of the ongoing M&A and divestment projects, the preparation of and focuses for the strategy meeting, the product pipeline of the two divisions, from preliminary development through market launch down to phase-out; and project control mechanisms and decision-making concepts in the R&D sections of the two divisions.

Members of the Strategy Committee:
- Dr. Stefan Sommer (Chairman)
- Franz-Josef Birkeneder
- Julia Thiele-Schürhoff
- Dr. Reinhard Ploss
- Dr. Sigrid Nikutta
- Michael Jell (until June 30, 2024)
- Werner Ratzisberger (since July 5, 2024)

Nomination Committee

If necessary, the Nomination Committee proposes appropriate candidates to the Supervisory Board that the latter may propose for election as new Supervisory Board members at Annual General Meetings.

The Nomination Committee met two times in person during the reporting period. Using the Supervisory Board's current skills profile as a basis, the committee covered abstract succession planning as well as the specific replacement for Dr. Weimer, who will depart the Supervisory Board as reported at the conclusion of this year's Annual General Meeting.

Members of the Nomination Committee:
- Dr. Reinhard Ploss (Chairman)
- Kathrin Dahnke
- Julia Thiele-Schürhoff

Mediation Committee

The Mediation Committee did not convene during the reporting period.

Members of the Mediation Committee:
- Dr. Reinhard Ploss
- Franz-Josef Birkeneder
- Kathrin Dahnke
- Michael Jell (until June 30, 2024)
- Werner Ratzisberger (since July 5, 2024)

Corporate Governance

The Supervisory Board attaches a great level of importance to ensuring satisfactory corporate governance. It examined its own understanding of corporate governance and compliance separately and intensively during the reporting period. The framework for this consists of the corporate governance requirements for listed German companies, in particular the ones under the German Stock Corporation Act (AktG), German Codetermination Act (MitbestG), and German Corporate Governance Code (GCGC), as amended. The Supervisory Board made a declaration of compliance pursuant to section 161 AktG for the reporting period in conjunction with the Executive Board on December 11, 2024. This declaration of compliance was made available on the company's website and is also printed in the Corporate Governance Statement. Knorr-Bremse AG fulfilled all recommendations of the German Corporate Governance Code in fiscal 2024 except for recommendation G.11 of the GCGC (which pertains to clawback and malus provisions in the service agreements of Executive Board members). The modifications of the Executive Board remuneration system required for the implementation of GCGC G.11 will be gradually implemented in contracts when they are renewed or when new ones are signed. Four of the five Executive Board service agreements now already contain a clawback and malus arrangement.

The Supervisory Board regularly assesses how effectively it is fulfilling its duties as a whole as well as through its committees (an "efficiency review" under section D.12 of the German Corporate Governance Code). As detailed above, an external efficiency audit was carried out most recently in the first half of 2024.

Conflicts of interest
The Supervisory Board conducts continuous monitoring to see if there are potential conflicts of interest in its decision making. The outcome of this monitoring was that there were no conflicts of interest relevant to the Supervisory Board's decision-making during the 2024 fiscal year or the current fiscal year.

Audit of annual and consolidated financial statements
The Supervisory Board and the Audit Committee in particular performed relevant audit procedures to ensure that the annual and consolidated financial statements and further financial statements for the 2024 fiscal year met the applicable requirements.

The annual financial statements of Knorr-Bremse AG as compiled by the Executive Board in accordance with Germany's generally accepted accounting principles (HGB), the combined management report of Knorr-Bremse AG, and the consolidated financial statements for the 2024 fiscal year based on International Financial Reporting Standards (IFRS) were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Munich and each awarded an unqualified opinion. KPMG was elected as the auditor of the financial statements for the 2024 fiscal year at the Annual General Meeting on April 30, 2024. KPMG has been the auditor of the Knorr-Bremse Group since its IPO in 2018 and was also appointed as the auditor prior to that. Michael Mokler was the main auditor overseeing the audit for the purposes of section 319a (1) sentence 4 HGB. Angelika Huber-Strasser is a further key audit partner.

Furthermore, the auditor discussed the half-yearly financial report in detail with the Audit Committee prior to its publication and reported on the status of the audit of the annual and consolidated financial statements when the preliminary figures were published. The auditor audited the report on relations with affiliated companies (section 312 AktG) that was compiled by the Executive Board. The auditor issued the following opinion in regard to the report: "Having conducted a due and proper audit and appraisal, we hereby confirm that 1. the actual disclosures contained in the report are correct, 2. the legal transactions disclosed in the report did not involve inappropriately high consideration or compensation for any disadvantages, 3. no circumstances relating to the measures disclosed in the report suggest an assessment other than the one made by the Executive Board."

The aforementioned reports, the Executive Board's proposal for the appropriation of net profit, and the auditor's reports were provided to all members of the Supervisory Board in a timely fashion or were displayed for their perusal at the Supervisory Board meeting on March 20, 2025. The Audit Committee conducted a preliminary audit of all documents at its meetings on February 19, 2025 (preliminary figures), and March 14, 2025, with Audit Committee Chairwoman Kathrin Dahnke reporting to the Supervisory Board about this at the Supervisory Board meeting on March 20, 2025. The financial statements and reports were presented to the Supervisory Board by the Executive Board and discussed in detail. The auditors attending the meetings reported on the results of their audits, for which the Audit Committee had previously specified key focal points of the audit for the reporting period. In this context, the auditors dealt in particular with the especially important audit matters mentioned in the audit opinion, with other key focal areas of the audit, and with the respective procedure during the audit, including the conclusions, and made themselves available for additional queries and requests for information.

The Audit Committee did not find any vulnerabilities in the risk management system, internal control system, internal audit system, or compliance management system. After our own audit of the annual financial statements, consolidated financial statements, and combined management report, we – as the Supervisory Board – do not have any cause to raise objections, for which reason we agreed with the Executive Board's assessment of the position of Knorr-Bremse AG and the Knorr-Bremse Group. The Supervisory Board approved the annual and consolidated financial statements for the 2024 fiscal year in line with the recommendation of the Audit Committee, which means that the annual financial statements of Knorr-Bremse AG are hereby adopted. We held in-depth discussions with the Executive Board about the appropriation of net profit and concur with the Executive Board's proposal to distribute a dividend of €1.75 per no-par-value share with dividend rights for fiscal year 2024. Knorr-Bremse's payout ratio of approximately 59% sees it leaving the distribution range of 40% to 50% of net income – which continues to apply – to reflect the Group's strong operational performance. The Supervisory Board approved the Report of the Supervisory Board, the Corporate Governance Statement and Compensation Report, the Dependent Company Report, and the Consolidated Nonfinancial Statement. A resolution will be made about the proposed appropriation of net profit at the Annual General Meeting on April 30, 2025. The agenda for the Annual General Meeting also includes the new election of a Supervisory Board member, the renewal of the authorization in the Articles of Association to hold the Annual General Meeting virtually, the Compensation Report for the 2024 fiscal year, and the approval of a company control agreement with KB Intellectual Property GmbH & Co. KG as a subsidiary entity for consolidated tax group purposes.

Membership changes to Supervisory Board and Executive Board

The composition of the Executive Board and Supervisory Board as at December 31, 2024, is illustrated in the overviews on page 26 for the Supervisory Board and page 11 for the Executive Board.

Supervisory Board

The Supervisory Board members representing the shareholders remained stable over the reporting period. On the employee side, Thomas Mittmann succeeded Michael Jell as the replacement member elected by the employees with effect from July 1, 2024; Michael Jell had been on the Supervisory Board since 2014 and stepped down from the board for personal reasons at the end of June. The company supports the newly elected members of the Supervisory Board in familiarizing themselves with their roles via a structured onboarding program to provide them with a comprehensive overview of the company and the global position of the Group, its operations, and the products of the two divisions. Manuela Deseive succeeded Sylvia Walter as an elected replacement member with effect from January 1, 2025, after the latter retired from the Supervisory Board at the end of December.

Executive Board

The makeup of the Executive Board remained stable in the 2024 reporting period. I particularly wish to highlight that the Supervisory Board passed a unanimous resolution in late January, ahead of schedule, to renew the appointment of Marc Llistosella as member and Chairman of the Executive Board for a further five years with effect from January 1, 2026. I am pleased that Marc Llistosella will continue to shape the future of the company and that we will keep on writing the Knorr-Bremse success story together. By renewing his contract ahead of time, the Supervisory Board honors his contribution to this success. The clear priorities of the Executive and Supervisory Boards are profitability, sustainable growth, and added value.

Acknowledgment

Knorr-Bremse's closing of the 2024 fiscal year with strong operational performance in spite of a challenging macroeconomic environment and with the achievement – and in some places even surpassing – of its ambitious targets, as the Executive Board announced in late February, is evidence of not only the resilience of its business model, but also the commitment and capabilities of the entire Knorr-Bremse team and its management. The Supervisory Board thanks the Executive Board and all employees who guided and are guiding the company successfully and securely through the fiscal year. The Supervisory Board will continue to oversee the Executive Board constructively in the future. I personally wish to express my continued gratitude for the open and positive demeanor that I encounter in my interactions with the workforce. Based on the culture as well as substantive insight, it reinforces my confidence that Knorr-Bremse can make its journey into the future a successful development.

Munich, March 20, 2025

best regards and all the best
yours Reinhard

Dr. Reinhard Ploss
Chairman of the Supervisory Board

Supervisory Board of Knorr-Bremse AG

Dr. Reinhard Ploss, Munich
- Chair of the Supervisory Board
- Member of the Supervisory Board of Deutsche Telekom AG
- Ordinary member of the TUM University Council
- Member of the Board of Trustees of Foundation for Demoscopy Allensbach
- Member of the Quantum Computing Advisory Board of Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR)
- Chair of Qutac (Quantum Technology & Application Consortium) Executive Committee
- Honorary member of Board of Trustees, Stifterverband für die Deutsche Wissenschaft
- Chair of the Advisory Board of CustomCells Holding GmbH

Franz-Josef Birkeneder*, Aldersbach
- Deputy Chairman of the Supervisory Board
- Global project support for Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

Dr. Theodor Weimer, Frankfurt am Main
- Deputy Chair of the Supervisory Board
- Chair of the Executive Board of Deutsche Börse AG (until December 31, 2024)
- Member of the Supervisory Board of Deutsche Bank AG

Kathrin Dahnke, Bielefeld
- Independent management consultant
- Chair of the Audit Committee
- Member of the Supervisory Board and Chair of the Audit Committee of B. Braun SE
- Member of the Supervisory Board and Chair of the Audit Committee of Jungheinrich AG
- Member of the Supervisory Board of Aurubis AG
- Member of the Supervisory Board of Fraport AG

Manuela Deseive*, Munich (since January 1, 2025)
- Commercial employee
- Member of the Works Council of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Knorr-Bremse AG, Knorr-Bremse Services GmbH
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Thomas Mittmann*, Berlin (since July 1, 2024)
- Technical coordinator in site and facility management
- Member of the works council of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH in Berlin

Dr. Sigrid Evelyn Nikutta, Berlin

- Member of the Executive Board (Goods Traffic) of Deutsche Bahn AG and CEO of DB Cargo AG
- Chair of the Board of Trustees of Deutsches Institut für Wirtschaftsforschung (DIW)
- Member of the University Council, Bielefeld University

Wolfgang Nirschl*, Passau

- Director and First Authorized Representative of IG Metall trade union, Passau office

Werner Ratzisberger*, Aldersbach

- Full-time member of the Works Council of Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

Annemarie Sedlmair*, Munich

- IG Metall Bezirksleitung Bayern, legal counsel
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH
- Member of the Supervisory Board of Bosch Rexroth AG
- Member of the Advisory Board of Fachakademie für Arbeitsrecht der Kritischen Akademie Inzell

Dr. Stefan Sommer, Meersburg

- Chair of the Strategy Committee
- Member of the Board of Directors of Aeva Inc., California, USA
- Chair of the Supervisory Board of Jost Werke AG
- Member of the Presidential Council of DEKRA e.V

Julia Thiele-Schürhoff, Munich

- Member of the Executive Board of Heinz Hermann Thiele Family Trust
- Chair of the Executive Board of Knorr-Bremse Global Care e.V.

Sylvia Walter*, Berlin (until December 31, 2024)

- Accounting employee/accountant
- Member of the Works Council of Hasse & Wrede GmbH

Michael Jell*, Munich (until June 30, 2024)

- Full-time member of the Works Council of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Knorr-Bremse AG, Knorr-Bremse Services GmbH
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

* elected by the employees

The Supervisory Board

Dr. Reinhard Ploss
Chairman of the Supervisory Board
CEO of Infineon Technologies AG, retired, Munich

Kathrin Dahnke
Chairwoman of the Supervisory Board Audit Committee,
Self-employed Management Consultant, Munich

Franz-Josef Birkeneder *
Deputy Chairman of the Supervisory Board,
Global Project Support,
Knorr-Bremse Commercial Vehicle Systems;
Aldersbach Plant Manager until 2022

Thomas Mittmann *
(since July 1, 2024)
Technical Coordinator in Site & Facility Management,
Member of the Knorr-Bremse Rail Vehicle Systems Works
Council, Berlin

Dr. Theodor Weimer
Deputy Chairman of the Supervisory Board,
CEO of Deutsche Börse AG, retired, Frankfurt

Dr. Stefan Sommer
Chairman of the Supervisory Board Strategy Committee,
Former Member of the Board of Management of Volkswagen AG
with responsibility for the Components and Procurement business,
Consultant, Meersburg

Julia Thiele-Schürhoff
Member of the Management Board of the
Heinz Hermann Thiele Family Foundation,
Chairwoman of the Executive Board of
Knorr-Bremse Global Care e.V., Munich

Werner Ratzisberger *
Full-Time Member of the Works Council of
Knorr-Bremse Systeme für Nutzfahrzeuge
GmbH, Munich

Wolfgang Nirschl*
Managing Director and First Authorized
Representative of IG Metall trade union, Passau

Manueala Deseive *
(since January 1, 2025)
Facility Management Officer, Commercial
Employee, Munich

Dr. Sigrid Evelyn Nikutta
Member of the Management Board
(Freight Transport) of Deutsche Bahn AG;
CEO of DB Cargo AG, Berlin

Annemarie Sedlmair *
District Legal Counsel of the Bavarian
district leadership of IG Metall trade
union, Munich

* Employee representative

02

Combined Management Report*

** Combined Management Report: We have combined the management report of the Knorr-Bremse Group with the management report for Knorr-Bremse AG, in accordance with Section 315 (3) of the German Commercial Code (HGB) in conjunction with Section 298 (2) HGB. The management report is therefore termed a combined management report. Unless otherwise specified, the information below is applicable to both the Knorr-Bremse Group and Knorr-Bremse AG. Statements which refer exclusively to Knorr-Bremse AG are marked as such, and appear at the end of the combined management report.*

Combined Management Report

About the Group[1]

Overview of the Group[2]

Organizational structure of the Group

Knorr-Bremse AG is the listed management holding company of the Group. It controls the divisions and handles central functions such as strategic management, treasury, accounting, controlling, HR, legal affairs, M&A, taxes, internal audit, compliance, intellectual property, sustainability, and corporate communications. Knorr-Bremse AG serves as the corporate center, along with the regional holding companies Knorr Brake Holding Corporation (North America), Knorr-Bremse Asia-Pacific (Holding) Limited, and Knorr-Bremse Brasil (Holding) as well as Knorr-Bremse Services GmbH and KB Media GmbH.

We manage our business operations through two business units (divisions), which also represent our reportable segments under IFRS:

- Rail Vehicle Systems (RVS division) and
- Commercial Vehicle Systems (CVS division)

Divisions, sales markets, market share, products, and services

RAIL VEHICLE SYSTEMS DIVISION

The Rail Vehicle Systems division supplies highly advanced, safety-critical products and systems for equipping mass transit vehicles such as commuter trains, metro cars, and light rail vehicles as well as freight cars, locomotives, and high-speed trains. Knorr-Bremse is the world market leader in the global market for rail vehicle braking systems. Knorr-Bremse is also a leading market player in entrance systems and HVAC systems. Details of the Group's market share are based on internal market analyses and estimates for fiscal year 2024.[3]

The product portfolio of the Rail Vehicle Systems division includes, among other things, braking systems, entrance systems, HVAC systems, sanitary systems, coupling systems, a portfolio of digital solutions and smart services for optimizing rail transport, power electrics, rail computing and communication systems, stationary and mobile testing equipment, windscreen wiper and wash systems, and signaling technologies (control, command, and signaling [CCS]). Alstom Signaling North America was acquired in August. Knorr-Bremse wishes to enhance and internationalize the business that KB Signaling has in a decisive way with new and digital solutions.

Furthermore, Knorr-Bremse has concentrated its extensive rail aftermarket activities under the RailServices umbrella, with innovative solutions for the complete life cycle of a vehicle. RailServices continues to focus on the four service topics of "environmental improvements," "availability solutions," "process optimization," and "lifetime expansion." Whether standalone or in combination, RailServices always keeps sight of the greatest possible added value for its customers' vehicle operations.

COMMERCIAL VEHICLE SYSTEMS DIVISION

Our Commercial Vehicle Systems division supplies products and systems primarily for trucks, as well as for buses, trailers, and agricultural machinery. Knorr-Bremse is the world market leader in the global market for disk brakes as well as pneumatic braking systems for commercial vehicles. It is also a leading supplier of products for braking systems and vehicle dynamics (including steering systems), energy supply and distribution, and fuel efficiency. Details of the Group's market share are based on internal market analyses and estimates for the 2024 fiscal year.[3]

The product portfolio of the Commercial Vehicles Systems division includes, among other things, pneumatic braking systems (i.e., brake control systems, disk brakes, drum brakes, brake cylinders, valves and pedal units) and steering systems, vehicle dynamics solutions (i.e., anti-lock braking systems and electronic stability programs), driver assistance systems (e.g., emergency braking systems), electronic leveling control, energy supply and distribution systems, including compressors and air treatment, products for boosting fuel efficiency such as engine components and transmission control systems (i.e., vibration dampers, engine air management, transmission control, and gear/clutch actuation), and trailer and aftermarket solutions.

Under our TruckServices brand, we offer premium products and extensive services in the commercial vehicle aftermarket. Following the acquisition in November 2022 of

[1] None of the disclosures in this Combined Management Report regarding the categorization of revenues as OE or aftermarket or regarding order books and order intake are audited. These disclosures are not the subject matter of the auditor's conclusions.

[2] This section forms part of the Knorr-Bremse Group Sustainability Statement for the fiscal year from January 1 through December 31, 2024.

[3] Not audited; not subject to auditor's conclusions.

a majority interest in Cojali S.L., one of the leading developers and manufacturers of cross-brand diagnostic solutions for commercial vehicles, the first joint developments in conjunction with this entity have been completed. The Knorr-Bremse Diagnostics and ACom in-house diagnostic solutions are now integrated into Cojali's Jaltest Diagnose and can be purchased as add-on software modules.

Business model/structure of the Group[4]

Legal structure of the Group

Knorr-Bremse AG is the parent company of the Knorr-Bremse Group. As at December 31, 2024, the Group comprised 111 fully consolidated German and foreign subsidiaries directly or indirectly controlled by the company. The Group is represented at more than 100 locations in 30 countries.

Changes to the Group's portfolio and asset deals

Information on changes to our portfolio may be found in the Events of Material Importance to Business Performance chapter.

Business model

FINANCIAL SIGNIFICANCE OF INDIVIDUAL PRODUCTS, SERVICES, AND SALES MARKETS

We sell our products and services to customers around the world and are partners to nearly all major vehicle OEMs, as well as rail and fleet operators. Traditionally, Europe is our strongest sales region. In 2024, we generated 46.1% of our revenues by region (i.e., based on the country in which the particular vehicle for which we supply systems or components is operating) in Europe/Africa, with the remainder coming from the Asia–Pacific region (25.9%) and North and South America (28.0%). Both divisions have a substantial aftermarket business. In 2024, our aftermarket activities accounted for approximately 43.1% of total revenues.

BUSINESS PROCESSES AND QUALITY

As many of our products and systems are safety-critical, a high level of availability, reliability, and quality is one of the main reasons our customers choose to buy from us. We have therefore implemented integrated management systems in both divisions, based on established processes for meeting quality, environmental, and health and safety standards.

Knorr-Bremse stands for a high level of quality in its products and services. We regularly implement various initiatives in our divisions to increase quality awareness and sustainably foster a quality-oriented mindset across the Group. We employ a 360-degree management system approach to help us meet all requirements during a product's life cycle – from development, testing, careful supplier selection, production, and assembly right through to how the product is used by customers. Compliance with all relevant quality indicators – such as cost of poor quality, supplier and customer delivery quality, functional test failures, and product safety results – is monitored in monthly, global reports. These management reviews prioritize the continuous improvement of our product and system quality, along with the responsibility of each individual employee for safe production and work processes.

We review and improve the implementation of our process management system by conducting regular internal audits and assessments around the world. This is further confirmed by external certification audits based on IRIS (International Railway Industry Standard) for our Rail Vehicle Systems division and on IATF 16949 (International Automotive Task Force standard) for our Commercial Vehicle Systems division.

CUSTOMER RELATIONSHIPS

In both divisions, we cultivate long-term relationships with our customers. These include global and regional vehicle OEMs and operators.

Around 46.0% of the Rail Vehicle Systems division's revenues are generated by OE business. In 2024, aftermarket sales accounted for 54.0% of the division's revenues. Sales to OE customers generated around 68.4% of revenues in the Commercial Vehicle Systems division. Aftermarket sales accounted for around 31.6% of the division's revenues in 2024.

PROCUREMENT

As well as ensuring our production locations are supplied with materials, our procurement activities focus on achieving cost savings and on establishing collaborative partnerships with innovative and preferably local suppliers. The procurement organization plays a key role in the cost-optimized procurement, quality, and on-time delivery of our end products. The material cost ratio as a percentage of Group revenues was 48.2% in 2024 (2023: 50.6%). This underscores the importance of procurement and supply chain management for Knorr-Bremse.

Our Group-wide Supplier Code of Conduct includes the standards our suppliers are required to meet with respect to working conditions, human rights, environmental protection, health and safety, business ethics, and compliance. A large part of our global purchasing volume of direct and indirect materials and services is now covered by suppliers who have signed up to our Code of Conduct. We

[4] This section forms part of the Knorr-Bremse Group Sustainability Statement for the fiscal year from January 1 through December 31, 2024.

will continue systematically rolling out the Code of Conduct to our suppliers over the coming reporting period.

The availability and prices of raw materials as well as energy prices are crucial procurement factors for our production and assembly units. We therefore monitor various commodity and energy indexes on a monthly basis (such as the German Bundesverband der Deutschen Gießerei-Industrie, MEPS, the Metal Bulletin, the London Metal Exchange, the EEX, and the Eurostat Index). In the event of significant market fluctuations (price, availability), we practice risk management to develop risk mitigation or minimization measures for the respective categories of goods and/or suppliers that are affected.

Our procurement and supply chain management focuses on improving our supply chain capabilities, supply chain processes, and inventory levels across the entire value chain: inbound, within our plants and plant network, outbound, and at the recycling stage. Our supply chain management approach is also governed by factors such as integrated planning, parts availability, tariffs and foreign trade, logistics and material handling, transportation, short lead times, and parts traceability. We have a coordinated delivery cycle with a standardized process model and synchronized supply chains across multiple locations. This allows us to guarantee reliable delivery and adequate stock levels, and simultaneously high logistical performance as well as delivery quality and reliability, while keeping costs low.

The extensive supply chain analytics capabilities that have been established are increasingly being applied in many areas and support the expansion of our strict performance management approach. Overall, the availability of purchased parts in the Rail Vehicle Systems and Commercial Vehicle Systems divisions during the reporting period increased significantly, however, there still exists a small number of supply shortages and irregularities due to specific, one-off events (e.g., consequences of insolvency or catastrophic flooding). The elasticity and flexibility in the supply chain has not yet been able to be recouped when compared with the pre-crisis level prior to 2020. Supply shortages that arise in places still need to be managed and alleviated using task force solutions. Given the global market developments (e.g., logistical difficulties in the Red Sea), the assumption should remain that there will be shortages at short notice in the future, too.

Global sourcing

To leverage the potential of Asian supplier markets for the Rail Vehicle Systems division, we have set up a purchase office in India to support our European and North American purchasing teams. As part of our global commodity management strategy, we installed a team in China which systematically taps into the Chinese procurement market for the Rail Vehicle Systems division's global requirements, achieving synergies for the Group. We have set up a global supplier selection process for the Commercial Vehicle Systems division. The Commercial Vehicle Systems division has also further developed its organizational structures for purchasing in India and Thailand in order to keep optimizing the share of supplies sourced from best-cost countries (e.g., India, Thailand, or Vietnam).

We make sure to limit our dependency on individual regions and retain or develop alternative sources of supply. Decision-making regarding purchases in the Commercial Vehicle Systems division is therefore always presented to a multidisciplinary Sourcing Board (which includes representatives from various departments, i.e., Purchasing, Research & Development, Quality, Logistics, and Sustainability) for the final decision. A purchasing localization strategy increases supply chain flexibility, supports the further development of local technological know-how, and reduces vulnerability to currency volatility and customs barriers thanks to the "natural hedging" provided by localized procurement. In both divisions a "dual sourcing" strategy is pursued that offers a high degree of independence from single suppliers.

In 2024, both divisions worked intensively on boosting the terms of payment among selected suppliers.

For over 10 years, we have operated a Sustainability-linked Supply Chain Finance program (SSCF) for our most important suppliers and constantly further developed this program. Under the program, suppliers receive early payment from a bank in return for deducting a discount from the relevant invoices and consequently benefit from Knorr-Bremse's good rating.

Global category strategy

For purchasing in both divisions, there are global organizational structures for categories of goods and they are responsible for developing and enhancing strategies for specific categories of goods. Framework agreements are made with suppliers and the portfolio of suppliers itself is developed further. Given the geopolitical developments, the organization is continuing to focus on supply chain reliability.

In its direct purchasing, the Group consistently pursues cross-divisional category strategies to achieve volume effects and works to ensure uniform framework agreements and establish a strategic supplier panel. Purchasing strategies are under development and in the process of further optimization for indirect purchasing in a total of six categories in the areas of IT, logistics, capital goods, building management, services, and travel management to improve procurement costs, processes, and quality.

Challenges in 2024

Procurement activities globally were influenced by the ongoing volatility in global supply chains in 2024. Despite chip availability stabilizing, there continued to be a risk factor, especially for end-of-life components.

Crisis situations arose from external events such as catastrophic flooding in Germany, Hungary, Italy, and Austria and logistical issues in the Red Sea as well as specific difficulties for reasons such as the insolvency of key suppliers. Shortages and high freight costs, intensified by unpredictable weather conditions, continued to be a burden on supply chains. With the task force that was tried and tested during the pandemic and supply crises in the chip industry and logistics sector, the procurement teams were largely successful in countering short-notice shutdowns of our sub-suppliers. Production downtime was therefore largely able to be prevented. Following the clear maxim of “customer first,” we also adjusted our stocks of raw material to ensure our delivery capability. Supply bottlenecks and price increases, especially in the area of logistics, plus rising inflation have made procurement activities more difficult for the two divisions and for indirect purchasing. There is increasing significance being put on the improvement of our suppliers’ ESG performance. The implementation of supply chain legislation and achievement of greater transparency surrounding supplier recycling quotas and CO_2 reduction initiatives is at the top of the procurement teams’ agenda in both divisions.

While raw material costs have generally developed positively due to the relaxation of commodity markets and energy prices, inflation and the shortage of well qualified workers among our suppliers continued to have a challenging impact on the three procurement areas during the period. Major initiatives to reduce the cost of materials were carried out successfully so that as much of the improved factor costs as possible were translated into improved purchase prices.

LOCATIONS AND DISTRIBUTION OF WORK WITHIN THE GROUP

Knorr-Bremse operates production plants in Europe, Africa, North America, South America, and the Asia–Pacific. In recent years, alongside intensive localization initiatives, we have further expanded our global production and engineering footprint in both divisions by means of multiple acquisitions and joint ventures. Our products are manufactured all over the world, with a global balance between high-tech locations such as Western Europe and North America and best-cost locations such as Eastern Europe, Africa, the Asia–Pacific, Mexico, and South America.

Production at our locations is based on uniform global standards which deliver a high degree of flexibility coupled with reliable delivery capacity. At the same time, they help us to ensure a uniformly high standard of quality at each location, for example, by deploying the Group-wide Knorr-Bremse Production System (KPS) to manage production. KPS uses a variety of tools and techniques – including metrics, lean management methods, shop floor management, and pull principles that are rolled out by experts and taught by an internal lean training academy.

Control system

Company-specific leading indicators

For many years, Knorr-Bremse has excelled at identifying signs of changes in the marketplace at an early stage and rapidly responding to them. To better control our business, we monitor a range of leading indicators. This enables us to respond to any fluctuations in the economic cycle or changes in demand and implement suitable measures in a timely fashion. Four types of indicator are used:

- Key leading economic indicators are the money supply, commodity prices, energy prices, and procurement manager and business climate indices. Research reports and macroeconomic statistics, on transit volumes for example, also help to identify relevant economic developments at an early juncture. We also pay close attention to interest rate trends. Business performance in our commercial vehicle business correlates with trends in the global economy, while the rail vehicle business, especially in the passenger segment, is usually only marginally cyclical.
- More specific indicators for estimating future potential business include our customers’ production and sales plans, as well as order book and order intake statistics and forecasts. We also keep track of financial analysts’ expectations for publicly traded companies in the rail and commercial vehicles sector.
- The third leading indicator is actual invitations to tender issued by our customers. We collect information on these in our sales database, together with an assessment of our acquisition opportunities.

- The fourth group of indicators comprises the **order intake**[5] and **order books**[6] for our two divisions, both in absolute terms and relative to revenues. Since many orders have a relatively long lead time, both these metrics are useful for estimating capacity utilization and sales revenues over the next few quarters.

External influencing factors

The most important external factor influencing the Rail Vehicle Systems division is order book trends among our customers – the companies that actually build the vehicles. In addition, the size and average age of our installed base and their use are primary factors for the development of our aftermarket business. Regular market studies generally provide orientation for the market development expected within the industry and the trends for the subsystem market that is relevant to Knorr-Bremse. The key market studies for this include the “World Rail Market Study, forecast 2024 to 2029” from UNIFE (Association of the European Rail Industry) and the “Worldwide Market for Railway Industry 2024” study from SCI.

In the Commercial Vehicle Systems division, the truck production rate in the respective countries and regions provides information on the production volume of truck manufacturers, which are in turn among the division’s main customers in the original equipment business. For the aftermarket, the vehicle fleet available in the market based on historic production rates and specially available indices (e.g., MacKay) provide insight into market development.

In certain regions, our business is affected by government regulations on emissions and safety. In general, more stringent limit values – for CO_2 emissions, for example – are driving the demand for low-emissions vehicle technology.

Exchange rate fluctuation has a noticeable influence on our revenues and earnings; however, the impact on our margins’ development is moderate thanks to the high level of localization. As we have set up local development operations in major foreign markets, with local production plants and procurement structures, our need to export between different regions is low. This lowers the transaction risks arising from currency risks. More significant are the translation effects of converting foreign currency items into euros.

Value management

The most important financial performance indicators for managing Knorr-Bremse are **revenue**, **operating EBIT**, **operating EBIT margin**, and **free cash flow.**

The operating EBIT is the Group’s EBIT adjusted for material individual items. When calculating the operating EBIT, income and expenses are adjusted if their amount and the frequency of their occurrence hinder or distort the assessment of Knorr-Bremse’s operating profitability. Such items include in particular expenses for and income from M&A activities, expenses in connection with restructuring, and expenses and income from one-off effects, for example, in connection with litigation.

The operating margin is calculated from the ratio of operating EBIT to revenues.

Free cash flow is calculated by deducting disbursements for capital expenditure on property, plant, and equipment and intangible assets from the cash flow from operating activities, and by adding proceeds from the sale of property, plant, and equipment and intangible assets to the cash flow from operating activities.

The performance indicators are regularly reviewed for their significance and adjusted and refined where necessary. Further information can be found in the Corporate Management Indicators chapter.

The revenue, operating EBIT, operating EBIT margin, and free cash flow metrics also form the basis for our performance management system for the previous fiscal year. Knorr-Bremse uses this performance management system to reward Executive Board members for sustained long-term improvements in the company’s performance. Further information about our remuneration policy may be found in the separately published Compensation Report.

Knorr-Bremse practices active portfolio management. The Executive Board continuously monitors the portfolio’s performance and future prospects and makes adjustments to the portfolio as required.

[5] Incoming orders are defined as all orders for a specific period; These purchase orders are reported as incoming orders when legally binding documents exist that oblige the company to supply a certain quantity of goods or services within a certain timeframe and at a certain price.

[6] The order book is defined as all incoming orders that have not yet been delivered, rejected, or canceled.

Research and development

Our innovation agenda focuses on technological developments that contribute to the wider social megatrends of urbanization, sustainability, digitalization, and mobility. Moreover, this agenda has a clear basis that is primarily in the further development of our products in relation to safety, customer benefit, value adding, and growth. The further development in our divisions concentrates on the following technology- and innovation-related topics:

- Rail Vehicle Systems division: traffic flow, digital solutions, operations and maintenance, travel comfort, environmental footprint, and cost-effectiveness;
- Commercial Vehicle Systems division: traffic safety, emissions reduction + e-mobility, automated driving, and connectivity.

We strive every day to provide our customers with ultramodern electronics, hardware and software, including in the form of systems, that can be adapted to meet changes in regulatory standards and incorporate the very latest advances in engineering methods and tools.

Our research and development activities continue to focus on innovation areas specific to each division as well as on joint synergy potential. These synergies are found increasingly in the digital field, especially in respect of sensors, edge computing, artificial intelligence, and condition monitoring, as well as in known areas of mechanics and mechatronics such as brake control, hydraulics, wheelend/bogie equipment, and compressed air generation. Synergies between the divisions translate into a faster time to market and efficiency in development.

At Group level, we invested € 568 million (representing 7.2% of revenues) in our R&D activities in fiscal 2024. Of this, € 276 million or 6.8% of associated revenues was spent in the Rail Vehicle Systems division and € 292 million or 7.6% of associated revenues in the Commercial Vehicle Systems division. Table → 2.01

Our globally responsible R&D locations in Munich and Schwieberdingen (Germany), Budapest (Hungary), and Pune (India) collaborate in increasingly complex interdisciplinary innovation projects. At the same time, these hubs maintain close contact with our customers and the users of our products so that they can identify in part very different local needs at an early stage and take a targeted approach to meeting these needs. Our R&D activities are spread in a correspondingly well-balanced way across locations that operate globally and locations with local specializations. Local locations with a significant concentration on customer-specific requirements and projects are to be found in, for example, Avon and Watertown (US) and Suzhou (China).

A close-knit network of customers, universities and technical institute are constantly generating new ideas and innovation projects. In addition to our close ties with institutes such as the Technical University of Berlin, Technical University of Munich, and Budapest University, we are currently intensifying our collaboration with start-ups – especially in digital fields – via external networks and incubators such as UnternehmerTUM in Munich. In total, our external R&D network comprises more than 15 partnerships. Knorr-Bremse is also an active driver and founding member of the most important European research and innovation initiative Europe’s Rail (ERJU) and will be jointly investing more than € 1 billion in rail transportation and the EU together with almost 30 other key companies here for the years from 2022 to 2030. This collaboration enables us to help develop the rail industry for the coming decades, anticipate sector trends, and create future-proof norms and standards. In particular with systems such as the digital automatic coupler (DAC) for freight transport in Europe, Knorr-Bremse is increasingly becoming the technological pacesetter for couplers, train operation functions, and value-added digital functions. Since 2023, this expertise as a key contributor to the digital freight train (DFT) has been demonstrated and continuously improved in a large number of test cases in Germany and other countries.

The Knorr-Bremse Group’s innovations and research findings are regularly presented at the industry’s foremost trade shows (e.g., IAA TRANSPORTATION, Automechanika, and InnoTrans). At IAA TRANSPORTATION 2024, we presented key technologies for contributing to the safe future of road transportation: the modular SYNACT® family of disk brakes for heavy commercial vehicles and buses and the weight-reduced NexTT disk brake for trailers. Another key new development is our modular GSBC brake control system, which is a central component of our driver assistance systems and automated driving. Knorr-Bremse meets the strict requirements for efficiency and flexibility in air compression and air supply systems with the rotary vane compressor and Global Scalable Air Treatment (GSAT) technology platform. With fully electric power steering (EPS) and our advanced hybrid power steering (AHPS), we have strengthened our position as one of the leading global suppliers of steering systems for commercial vehicles and exhibited two innovative solutions from our state-of-the-art portfolio. To complement its intelligent, electronic iTEBS®X trailer braking system, Knorr-Bremse offers cloud-based services and digital solutions such as the Online Configuration Tool (OCT) platform and the Software Update Management System (SUMS). At Automechanika 2024 in Frankfurt am Main, Knorr-Bremse TruckServices presented PleaseFix, a service booking tool that significantly improves vehicle fleet efficiency through optimal repair and maintenance planning. At InnoTrans 2024 in Berlin, Knorr-Bremse demonstrated a range of innovations such as “zero step” barrier-free vehicle access, a close-to-production version of the Digital Automatic Coupler (DAC), including the first specification-compliant electric coupler; an innovative outlook for next-generation braking technology, and the comprehensive Data2Action digital solution landscape, which combines elements of condition-based maintenance (CBM), condition monitoring (CM), and cybersecurity in an innovative way.

2.01 R&D METRICS

in € million	2024	2023
R&D costs*	**568**	**544**
Capitalized development costs**	108	107
Amortization and impairment of capitalized development costs**	51	36
R&D employees (Dec. 31)	4,947	4,588

* Research and development costs
Research and development costs include all costs over a financial period (including capitalized costs) that can be allocated to research into and development of new products, further development of existing products, and pure research.
** The capitalized development costs and the amortization of them include all costs that can be allocated to the development of new products and further development of existing products.

In the long term, it is necessary to make rail transport more attractive, more efficient, and faster for it to remain competitive against other forms of passenger and freight transport. Availability and the efficient management of life cycle costs are the basis for this, while digital service solutions represent the next step toward achieving this goal economically and sustainably. In addition, automated train operation (ATO) solutions are playing a growing role. Knorr-Bremse is investing in the associated technologies, such as environment detection, data collection, and train control systems. Nexxiot and RailVision, companies that we have invested in, are synonymous with state-of-the-art, technology-based solutions that deliver crucial starting points for making the rail system more reliable, more available, more flexible, and safer. Knorr-Bremse continues to expand its digital portfolio in the field of data-based services, digital freight trains, cybersecurity, and sensor-based environment monitoring.

At train level, Knorr-Bremse is helping rail operators to automate the operational processes for preparing trains: For example, brake testing – previously a time-consuming manual operation that rail crews had to carry out before every journey – can now be automatically performed by digital systems in the driver’s cab, making a crucial contribution to improved time efficiency.

At fleet level, Knorr-Bremse is rapidly developing features for automating fleet operators’ maintenance, service, and operational processes. These include, for example, real-time condition monitoring solutions and driver assistance systems such as LEADER© for optimizing energy consumption.

In keeping with its transformation into a comprehensive rail mobility service provider, the Rail Vehicle Systems division is also pleased about the acquisition of a signaling technology line of business in North America. Intelligent rail mobility is characterized more than ever by seamless integration between infrastructure and the vehicle, and to that end the new KB Signaling business unit, the transaction for which closed on August 30, 2024, offers a strong portfolio of solutions and innovative approaches for further optimization and digitalization of all operations.

In our Commercial Vehicle Systems division, our research and development activities in recent years have concentrated on the key industry priorities of road safety, automated driving, reduction of emissions, e-mobility, and connectivity.

Society’s requirements for transportation safety are steadily increasing in all regions of the world. Reliable, ready-to-use advanced driver assistance systems (ADAS) such as blind-spot detection and lane-keeping assist are a focus of development at Knorr-Bremse. It contributes its deeply rooted expertise in safety-critical systems through this development, enabling things such as the implementation of the EU General Safety Regulation (GSR).

Highly automated driving (HAD, SAE level 4 and up) creates entirely new possibilities for road transportation by reducing the total cost of operation (TCO). The progressive change from human drivers to technical solutions marks a shift in responsibility and places very exacting demands on the safety architecture of future, automated commercial vehicles. Knorr-Bremse is developing a broad and modular approach to fail-safe systems for braking, steering, and energy supply. These systems enable commercial vehicle makers and digital businesses to push ahead with HAD and equip truck-trailer combinations with the systems that are needed. With full EPS and electrohydraulic AHPS, Knorr-Bremse – one of the world's leading manufacturers of steering for commercial vehicles – offers no fewer than two platforms for fail-safe steering systems.

In view of developments in e-mobility, fundamental changes to commercial vehicle architecture are to be expected. Knorr-Bremse initiated eCUBATOR®, the innovation unit for e-mobility, to influence these fundamental changes proactively. In it, Knorr-Bremse's experts employ a generalist systems approach to create innovative and intelligent solutions for electric commercial vehicles. For Knorr-Bremse, it unlocks a vast number of possibilities for efficient and scalable technologies, from traction to braking and steering as well as energy supply. For first-generation electric commercial vehicles, for example, Knorr-Bremse has developed screw-type compressors, which are primarily built into electric buses and trucks. Knorr-Bremse is already turning its attention toward second-generation electric vehicles with energy management systems such as the redundant power management system; electromechanical actuators, extended drive integration functions, and electronic braking systems. Accordingly, Knorr-Bremse is driving progress on the development of the electromechanical braking system (EMBS) in line with its self-image as a technology leader for safety-relevant subsystems. With increasing vehicle connectivity, the possibilities for connecting intelligent systems and functions are rising. Knorr-Bremse has held a majority interest in Cojali S.L., based in Spain, since November 2022 to build up its position in digital and data-driven aftermarket solutions. Cojali is a global developer and maker of cross-brand diagnostic solutions for commercial vehicles. The ongoing development toward predictive maintenance and other digital services that further increase the availability of customers' vehicle fleets represents another focus for development in the Commercial Vehicle Systems division.

Employees[7]

As at year-end 2024, the Knorr-Bremse Group had a total of 32,549 employees, including leased personnel, down 2.3% on the previous year (previous year: 33,319). Excluding temporary staff, the Group employed 29,051 people (previous year: 29,487). The change is mainly the result of inorganic effects (company acquisition and disposal). As at the reporting date of December 31, 2024, the Rail Vehicle Systems division employed a total of 17,896 people (previous year: 17,284), including leased personnel, while the Commercial Vehicle Systems division employed a total of 13,550 people (previous year: 15,027).
At year-end 2024, Knorr-Bremse employed 16,730 people (16,054 excluding leased personnel) in the Europe/Africa region, compared with 17,290 (16,333 excluding leased personnel) in the previous year. At 51.4%, the percentage of employees in this region was slightly lower than the previous year's figure of 51.9%. In Germany, the head count fell from 5,743 (5,591 excluding leased personnel) to 5,236 (5,115 excluding leased personnel) as at December 31, 2024. The number of employees in North and South America as at December 31, 2024, decreased slightly to 6,612 (6,369 excluding leased personnel) from 6,694 (6,541 excluding leased personnel) in the previous year. This region's share of the total head count increased slightly to 20.3% (previous year: 20.1%). By the end of 2024, the head count in the Asia–Pacific region had fallen slightly to 9,207 (6,628 excluding leased personnel) from 9,335 (6,613 excluding leased personnel) the year before. The number of employees in the region as a percentage of the Group's total workforce thus rose slightly to 28.3%, compared with 28.0% in the previous year.

Further Details of Corporate Governance

Corporate Governance Statement

The Corporate Governance Statement for Knorr-Bremse AG was published on March 20, 2025, on the corporate website at https://ir.Knorr-Bremse.com/corporate-governance-en. Further details may also be found in the Corporate Governance chapter. Pursuant to section 317 (2) sentence 6 HGB, the auditor's audit of disclosures pursuant to sections 289f (2) and (5) and 315d HGB is limited to whether the disclosures have been made.

[7] This section forms part of the Knorr-Bremse Group Sustainability Statement for the fiscal year from January 1 through December 31, 2024.

Takeover-related disclosures pursuant to sections 289a (1) and 315a (1) HGB and explanatory report pursuant to section 176 (1) AktG

Composition of subscribed capital

The subscribed capital of Knorr-Bremse AG is divided into 161,200,000 bearer shares with full voting rights. The rights and obligations associated with the shares are governed by the German Stock Corporation Act (AktG). As of December 31, 2024, Knorr-Bremse AG did not hold any of its own shares, and nor does it currently do so.

Restrictions on voting rights/transfers and equivalent agreements

The members of the Executive Board have agreed to be bound for the duration of their appointment by a lock-up commitment covering any Knorr-Bremse shares they hold or are obliged to acquire in accordance with the Share Ownership Guideline (SOG). The Executive Board is not aware of any agreements by Knorr-Bremse AG shareholders containing restrictions on the exercise of voting rights or transfer of shares. There are statutory restrictions on voting rights, for example, pursuant to section 28 sentence 1 WpHG (violation of disclosure obligations), section 71b AktG (rights associated with own shares), and section 136 (1) AktG (exclusion of voting rights arising from certain conflicts of interest).

Shareholdings exceeding 10% of voting rights

KB Holding GmbH, Oberhaching, Germany ("KB Holding"), currently holds 58.99% of the voting rights in Knorr-Bremse AG. Pursuant to section 34 (1) WpHG, these voting rights are attributable to TIB Vermögens- und Beteiligungsholding GmbH, Oberhaching, Germany, and Stella Vermögensverwaltung GmbH, Oberhaching, Germany ("Stella"), and were until December 6, 2024, attributable to Mr. Robin Brühmüller in his capacity as executor of the estate of Heinz Hermann Thiele, who passed away on February 23, 2021. The majority of shares in Stella was until December 6, 2024, held by Mr. Thiele's widow and heir, Nadia Thiele (in accordance with the March 25, 2021, voting rights notification pursuant to sections 33, 34 (1) WpHG) and was on December 6, 2024, transferred to the Heinz Hermann Thiele Family Trust, Oberhaching, Germany ("Family Trust"), which was established in 2023 (transfer in accordance with the December 9, 2024, voting rights notification pursuant to sections 33, 34 (1) WpHG). Due to the control of the voting rights in Stella, the indirect equity interest of 58.99% held by KB Holding in Knorr-Bremse AG has also been attributed to the Family Trust (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated December 9, 2024). The Family Trust thus became the controlling shareholder of Knorr-Bremse AG.

Knorr-Bremse AG has not been notified of any other direct or indirect interests in Knorr-Bremse AG's capital stock that exceed 10% of voting rights, nor is it aware of any other such interests.

Shares with special rights

There are no Knorr-Bremse AG shares granting special rights.

Control of voting rights where employees hold a capital interest and do not directly exercise their control rights

There are no employee shareholdings in which control rights are not directly exercised. Like other shareholders, employees who hold shares in Knorr-Bremse AG exercise their rights of control directly, in accordance with statutory regulations and the Articles of Association.

Provisions for appointing and dismissing members of the Executive Board

The applicable statutory provisions can be found in Sections 84 and 85 AktG and in Section 31 of the German Codetermination Act (MitbestG). Knorr-Bremse AG's Articles of Association do not contain any provisions that deviate from the statutory regulations. In addition, Article 8 (1) of the Articles of Association stipulates that the Executive Board shall consist of at least two members and that the Supervisory Board may appoint one member of the Executive Board as Chair of the Executive Board (CEO) and another member of the Executive Board as Deputy Chair.

Provisions for amending the Articles of Association

The Annual General Meeting passes resolutions on amendments to the Articles of Association. Unless the German Stock Corporation Act (AktG) stipulates otherwise, the resolution shall, in accordance with Article 23 (2) of the Articles of Association, be passed by a simple majority of the votes cast and – to the extent that a majority of the capital represented at the time of the resolution is required – by a simple majority of the capital stock represented at the time the resolution is passed. Pursuant to section 13 (4) AktG, the Supervisory Board is authorized to resolve amendments to the Articles of Association that only affect their wording. Pursuant to Article 6 (5) of the Articles of Association, the same applies to amendments to Article 6 of the Articles of Association, according to their respective utilization of Authorized Capital 2023 and upon expiry of the authorization period.

Executive Board powers relating to the possibility of issuing or repurchasing shares

The powers of the Executive Board to issue shares are set down in Article 6 of the Articles of Association and in the statutory provisions:

AUTHORIZED CAPITAL

Until May 4, 2028, the Executive Board is authorized, with the Supervisory Board's approval, to increase the company's capital stock on one or more occasions by up to a total of € 32,240,000 by issuing up to 32,240,000 new bearer shares against cash and/or non-cash contributions (Authorized Capital 2023). The new shares attract a share of profit from the beginning of the fiscal year in which they are issued. Where legally permissible, the Executive Board may, if approved by the Supervisory Board, deviate from this and from section 60 (2) AktG and specify that the new shares attract a share of profit from the beginning of a fiscal year that has already ended and for which a resolution regarding the appropriation of net profit has not yet been passed at an Annual General Meeting for the time of the shares' issue.

The new shares should be offered to the shareholders for subscription; they may also be acquired by banks or companies within the meaning of section 186 (5) sentence 1 AktG with the obligation to offer them to shareholders for subscription (indirect subscription right). However, the Executive Board is authorized, with the consent of the Supervisory Board, to exclude shareholders' subscription rights in whole or in part:

- in order to realize fractional shares with the subscription rights being excluded;
- in the event of capital increases against non-cash contributions, in particular, as part of business combinations or for the purpose of acquiring companies, parts of companies, investments in other companies, or other assets or for entitlements to the acquisition of assets, including claims against the company or its subsidiaries within the meaning of section 18 AktG;
- in the event of a capital increase against cash contributions pursuant to section 186 (3) sentence 4 AktG if the issue price of the new shares is not significantly (as defined in section 203 (1) and (2) and section 186 (3) sentence 4 AktG) lower than the market price of the company's listed shares at the time of the final determination of the issue price and the exclusion of subscription rights is limited to a maximum of 10% of the company's existing capital stock in total; and
- (a) to the extent necessary to service purchase obligations or purchase rights to Knorr-Bremse shares arising from or in connection with warrant-linked and/or convertible bonds and/or profit participation rights with option and/or conversion rights and/or obligations issued by the company or Group companies, or (b) to the extent necessary to protect against dilution, in order to grant subscription rights to shares in the company to holders or creditors of warrant-linked and/or convertible bonds and/or profit participation rights with option and/or conversion rights and/or obligations (or combinations of these instruments) issued by the company or Group companies, to the extent that they would be entitled to such rights as shareholders after exercising their option or conversion rights or after fulfilling their option or conversion obligations.

The sum (i) of the shares that are to be issued from conditional capital through bonds issued pursuant to an authorization that was granted at an Annual General Meeting of the company (with subscription rights excluded), and (ii) of the shares that are issued from Authorized Capital 2023 during the period of this authorization (with subscription rights excluded) must not exceed a proportional amount of € 16,120,000.00 of the capital stock (equal to 10% of the capital stock of € 161,200,000.00 as at the time of the authorization).

CONDITIONAL CAPITAL

Until May 4, 2028, the Executive Board is authorized, with the Supervisory Board's approval, to issue bearer or registered subordinated or non-subordinated convertible and/or warrant-linked bonds, profit participation rights, and/or income bonds (or combinations of these instruments) (hereinafter collectively referred to as bonds) in one or more tranches, or simultaneously in multiple series, in a total nominal amount of up to € 1,500,000,000.00. Furthermore, the Executive Board is authorized to grant the holders or creditors of the bonds (hereinafter collectively referred to as the holders) conversion or option rights on a total of up to 16,120,000 no-par bearer shares in the Company with a proportionate amount of the share capital of up to € 16,120,000.00 in total, in accordance with the more detailed provisions in the terms and conditions of the bonds (hereinafter conditions of issue). The bonds may be issued against payment in cash and/or as contribution in kind. The conditions of issue may also provide for an option or conversion obligation upon expiry of the term or at an earlier date or on occurrence of a specific event.

Shareholders generally are entitled to a subscription right to the bonds. This subscription right may also be granted in such a way that the bonds are acquired by one or more banks or companies within the meaning of section 186 (5) sentence 1 AktG selected by the Executive Board with the obligation to offer these bonds to shareholders for subscription (indirect subscription right). However, the

Executive Board is authorized, with the Supervisory Board's consent, to exclude shareholders' subscription rights,

- to the extent that the bonds carrying conversion or option rights or conversion or option obligations are issued against cash payment and the Executive Board, after due examination, comes to the conclusion that the issue price of the bonds is not substantially lower than their hypothetical market value calculated using recognized mathematical, and in particular actuarial, methods. The authorization to exclude subscription rights applies to bonds with conversion or option rights or obligations for shares representing a proportionate amount of the capital stock that must not exceed 10% of the company's capital stock in total;
- to the extent that the bonds are issued against contribution in kind;
- to the extent necessary to grant the holders or creditors of bonds or warrants previously issued by the company or Group companies within the meaning of Section 18 AktG a subscription right in the amount to which they would be entitled after exercising their conversion or option rights or fulfilling their conversion or option obligations; and
- in order to exclude fractional shares with the subscription rights.

To grant shares to holders or creditors of convertible or warrant-linked bonds that were issued on the basis of the Executive Board's authorization, the Company's capital stock was conditionally increased by up to € 16,120,000.00 by issuing up to 16,120,000 new no-par bearer shares (Conditional Capital 2023). The precise details are governed by Article 7 of the Articles of Association.

SHARE BUYBACK

The company's Executive Board is authorized to repurchase its own shares and sell repurchased shares in the cases provided for in section 71 AktG. At the Annual General Meeting held on May 5, 2023, authorization was given to the company's Executive Board, pursuant to section 71 (1) (8) AktG, to buy back Knorr-Bremse AG's own shares up to a total amount of 10% of the capital stock existing at the time of this authorization coming into effect or – where this amount is lower – of the capital stock existing at the time this authorization is exercised, up until May 4, 2028. The shares acquired on the basis of this authorization, together with other treasury shares that the company has already acquired and are already held by or attributable to the company, should at no time account for more than 10% of the capital stock.

At the Executive Board's discretion, shares may be acquired

- as purchases on the stock exchange, through a public purchase offer;
- by sending all shareholders a public invitation to submit sale offers; or
- by granting shareholders rights to tender.

The Annual General Meeting held on May 05, 2023, also authorized the Executive Board to act as follows with treasury shares acquired on the basis of the above or earlier authorizations:

- to sell them on the stock exchange or, subject to the Supervisory Board's approval, by means of a public offer to all shareholders in proportion to their shareholdings;
- with the consent of the Supervisory Board, to offer and transfer them in return for contributions in kind, in particular as (partial) consideration for the direct or indirect acquisition of companies, parts of companies or interests in companies or other assets, including claims against the company, or for claims to the acquisition of assets or relating to a business combination;
- to use them to service purchase obligations or purchase rights of Knorr-Bremse AG shares arising from or in connection with warrant-linked and/or convertible bonds issued by the company or Group companies.

Agreements in the event of a change of control resulting from a takeover bid

The principal Knorr-Bremse AG agreements that are subject to a change of control relate to (i) the € 750 million Knorr-Bremse AG bond issued on June 14, 2018, which is due to mature in 2025, (ii) the € 700 million Knorr-Bremse AG sustainability-linked bond issued on September 21, 2022, which will mature in 2027, (iii) the € 750 million syndicated revolving credit facility which was signed on January 4, 2022, expires on January 4, 2029; and had not been used at the time this Combined Management Report was prepared, and (iv) the bond from Knorr-Bremse AG issued on September 23, 2024, with a tranche of € 600 million maturing in 2029 and a further € 500 million tranche maturing in 2032. According to the terms and conditions, creditors are entitled to demand repayment of the par value of the bond by Knorr-Bremse AG in the event of a change of control if this change of control results in a downgraded credit rating within 120 days of the implementation of the change of control (change of control period), that is to say if a rating awarded to Knorr-Bremse AG or to the bonds is withdrawn or changed from an investment-grade rating to a non-investment-grade rating. If a change of control does occur, the terms and conditions of the syndicated revolving credit facility provide for

Knorr-Bremse AG reaching an agreement with the creditors regarding the continuation of the credit facility agreement within a period of at least 30 days from the announcement of the change of control, with the decision to be taken at the creditors' discretion.

Group Sustainability Statement[8]

This Group Sustainability Statement was composed to fulfill the requirements of Directive (EU) 2022/2464 of the European Parliament and of the Council of December 14, 2022 (Corporate Sustainability Reporting Directive, CSRD), and the requirements of sections 315b and 315c in conjunction with sections 289c to 289e of the German Commercial Code (HGB) for a Group non-financial statement.

The Group Sustainability Statement refers to the period from January 1 to December 31, 2024. Pursuant to section 315b, Knorr-Bremse AG is obliged to draw up a non-financial statement for the Knorr-Bremse Group. The following contents of the Group Sustainability Statement represent the Group non-financial statement for the 2024 fiscal year for the Knorr-Bremse Group.

According to section 315c in conjunction with 289c, the Group non-financial statement covers the information material for the Group due to its relevance to business activities with regard to the required aspects of environmental, employee and social matters, respect for human rights, anti-corruption, and anti-bribery. As shown in Table → 2.02, they are included in the chapters mentioned. Knorr-Bremse's business model is described in the About the Group chapter in the Combined Management Report.

2.02 ALLOCATION OF THE MATERIAL ASPECTS ACCORDING TO CSR-RUG AND ESRS

Environmental matters	Climate change [E1] Pollution [E2] Water resources [E3] Resource use and circular economy [E5]
Employee matters	Own workforce [S1]
Social matters	Product and system safety
Respect for human rights	Own workforce [S1] Workers in the value chain [S2]
Combating corruption and bribery	Business conduct [G1]

The following Group Sustainability Statement is made in accordance with the European Sustainability Reporting Standards (ESRS). In addition to the General disclosures chapter, the required information on governance, strategy, impact, risk, and opportunity management as well as on metrics and targets are published for seven standards and the company-specific topic of product and system safety. The topics are focused on the basis of a double materiality assessment.

General disclosures [ESRS 2]

General basis for preparation of Sustainability Statement [BP-1]

The scope of consolidation for this Sustainability Statement corresponds to that of the consolidated financial statements for Knorr-Bremse AG, the management holding company of the Group, in accordance with IFRS financial reporting. Information that refers only to individual entities of the consolidated companies is identified as such.

In terms of the scope and depth of reporting, our Sustainability Statement includes the upstream and downstream value chains of our two divisions (Rail Vehicle Systems [RVS] and Commercial Vehicle Systems [CVS]). Where possible, our policies, targets, measures, and metrics cover the upstream and downstream value chains. Any specifications and deviations from them are set out in our Sustainability Statement under the relevant disclosures.

Disclosures in relation to specific circumstances [BP-2]

For its reporting, Knorr-Bremse deviates from the time horizons set out in ESRS 1 section 6.4 to ensure a time horizon definition that is consistent with Group-wide risk management. Short-term is defined as the current fiscal year, medium-term as a period up to three years, and long-term as a period of more than three years.

Knorr-Bremse is continuously working to improve its data management and data quality. To this end we are standardizing the system landscape and largely automating the collection of data. In general, we wish to point out that forward-looking data and information always include a certain degree of uncertainty and limitation.

Information on quantitative metrics and, if available, on monetary amounts that are subject to a high degree of measurement uncertainty can be found in the relevant disclosures in the Sustainability Statement. This also includes details of the degree of uncertainty and of assumptions, approximation procedures and assessments.

Our assumptions are generally based on our experience from previous reporting periods or external studies. For

[8] This section was not subject to a substantive audit as part of the statutory audit of our combined management report. However, our auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, has conducted an independent, limited assurance engagement for the Group sustainability statement contained in this section.

smaller locations with fewer than 50 employees, environmental indicators such as water consumption and volumes of waste are extrapolated on the basis of the per capita averages in the Group and the number of employees. This is indicated in the appropriate places in the statement.

Acquisitions are taken into account from the date of the realized acquisition, in line with our financial reporting. The metrics for 2023 were not adjusted for M&A activities and divestments during the reporting period.

The data reported in this statement was not subjected to additional external validation unless otherwise stated.

CHANGES TO THE PREPARATION OR PRESENTATION OF SUSTAINABILITY INFORMATION

Changes in the reporting for the 2024 fiscal year from previous reporting periods arise from the changeover in accordance with the CSRD/ESRS requirements. Individual metrics are collected and published in the reporting period for the first time; consequently, no prior-year data can be provided by way of comparison.

INFORMATION DUE TO DIFFERENT LEGAL PROVISIONS OR SUSTAINABILITY REPORTING STANDARDS

The reporting follows the requirements of the CSRD/ESRS. Information pursuant to Article 8 of Regulation 2020/852 ("Taxonomy Regulation") is published in a separate EU Taxonomy chapter within the Group Sustainability Statement.

In addition, we are guided by international standards such as ISO 9001, ISO 22163, IATF 16949 (quality management systems), ISO 14001 (environmental management), ISO 50001 (energy management), ISO 45001 (occupational health management), ISO/IEC 27001 (security of information and values), ISO 22628, and ISO 21106 (recyclability analysis). We fulfill the relevant requirements with the help of specific management systems, action programs and data systems. Our climate targets (Scopes 1 to 3) were validated by the Science Based Targets initiative (SBTi).

INCLUSION OF INFORMATION BY REFERENCE

2.03 OVERVIEW OF REFERENCED INFORMATION

Section	ESRS standard	Disclosure requirement	Reference in Sustainability Statement	Reference in other sections of the Group Management Report
General Disclosures	ESRS 2	GOV-5 [36 a) to e)]	Risk Management and Internal Controls over Sustainability Reporting	Report on Risks, Opportunities, and Expected Developments (except for the statement on the adequacy and effectiveness of the risk management system and the internal control system.)
General Disclosures	ESRS 2	SBM-1 [40 a) i and ii]	Strategy, Business Model, and Value Chain	Overview of the Group, Business Model/Structure of the Group
General Disclosures	ESRS 2	SBM-1 [40 a) iii)	Strategy, Business Model, and Value Chain	Employees
General Disclosures	ESRS 2	SBM-1 [42 a) and c)]	Strategy, Business Model, and Value Chain	Overview of the Group, Business Model/Structure of the Group
General Disclosures	ESRS 2	SBM-1 [42 b)]	Strategy, Business Model, and Value Chain	Overview of the Group, Business Model/Structure of the Group

Governance

ROLE OF THE ADMINISTRATIVE, MANAGEMENT, AND SUPERVISORY BODIES [GOV-1]

Composition and diversity

As stipulated by the Articles of Association, the Executive Board of Knorr-Bremse AG consists of at least two members. As of December 31, 2024, the Executive Board had five members, of which four were men (80%) and one a woman (20%). The gender diversity of the Executive Board, i.e., the percentage of female members, is thus 20%. All five members of the Executive Board are managing board members.

In accordance with the German Codetermination Act (MitbestG), the Supervisory Board of Knorr-Bremse AG is made up of twelve members with equal representation. The six members representing shareholders are elected at the Annual General Meeting while the six employee representatives are elected by the employees at the

Knorr-Bremse locations in Germany. The gender diversity on the Supervisory Board is 1.4:1 with seven male (58%) and five female (42%) members.

In the Supervisory Board's assessment, as of December 31, 2024, five of the six shareholder representatives can be considered as independent, equivalent to 83%.

Tasks and responsibilities

The Executive Board as the management body manages the company's operations, defines the strategy, and implements it in consultation with the Supervisory Board. The members of the Executive Board are committed to the company's interests. They collectively bear responsibility for the entire management of the company and decide on fundamental questions of business policy and corporate strategy as well as on the annual and multi-year planning. Irrespective of the Executive Board's overall responsibility, the individual members of the Executive Board are personally responsible for their allocated areas. The Executive Board ensures that legal provisions, official regulations, and internal guidelines are followed within the company and works to make sure they are observed by Group companies. The tasks of the Executive Board also include the establishment of an internal control, risk, and compliance management system that is appropriate and effective in view of the scope of the company's business operations and its risk situation.

The second management level in the Group includes the responsible heads of department of Knorr-Bremse AG, the members of the Management Boards of the European companies Knorr-Bremse Systeme für Schienenfahrzeuge GmbH and Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, and the members of the Management Boards of the North American and Asia-Pacific holding companies. The members of the Management Boards are responsible for the results of their subordinated companies and are in close dialog with the Executive Board. The departments of Knorr-Bremse AG perform supporting work for the Executive Board.

The Supervisory Board advises and monitors the Executive Board. It decides on the appointment of the Executive Board members and the rules of procedure and responsibilities of the Executive Board.

The Executive Board is responsible for the business strategy's focus on sustainability. In the reporting period, the Executive Board and Supervisory Board examined all material impacts, opportunities, and risks with regard to sustainability as part of the sustainability analysis. The Sustainability department coordinates the implementation of the sustainability strategy and reports directly to the Chief Financial Officer (CFO). The Group-wide ESG Board manages the topic of sustainability in organizational terms and supports the implementation of the defined measures. The various function areas and divisions are tasked with the operational implementation of projects. The ESG Board meets several times a year and deliberates on the further development of the sustainability program, including the setting of targets and actions for the strategic topics. It is composed as follows: three members of the Executive Board (CFO, Executive Board member for Integrity, Legal, IP, Data Protection, and HR, Executive Board member with responsibility for RVS), one member of the Management Board from the CVS division, a member of each of the Management Boards of the Knorr-Bremse regions of North America/South America and the Asia-Pacific, the Chair of Knorr-Bremse Global Care e. V., and the Head of the Sustainability department.

The divisional ESG boards come before the Group-wide ESG Board in the chain of responsibility. They coordinate the implementation status of the ESG measures between departments. The Sustainability department, as a permanent member, ensures that cross-divisional topics are equally addressed and coordinated in the two boards. In addition to the Management Board members with responsibility for the topic, the divisional ESG boards also include the heads of the functional units, who have a particularly large part in the further development and implementation of the sustainability program. This includes the following functions: Purchasing, Health, Safety and Environment (HSE), Business Development, Research & Development (R&D), EcoDesign, and Sales. In the RVS division, the Executive Board member is also a member of the divisional ESG Board.

In addition, the departments shape the implementation and development of the sustainability program. Established bodies discuss individual specialist topics, such as human rights or sustainable purchasing, and monitor the operational implementation of actions.

We established a steering committee for the project management of the German Supply Chain Due Diligence Act (LkSG). The committee is composed of members of the Executive Board and managers of the two divisions RVS and CVS. This is designed to ensure that the Executive Board and the Management Boards of the divisions are kept regularly informed and that, furthermore, the Group's managers take an active part in shaping risk management. During the reporting period, the risk reporting on the LkSG was transitioned to regular quarterly risk reporting.

In addition to its role as an auditing body for material impacts, risks, and opportunities, the Supervisory Board – via its committees – is responsible for questions related to sustainability and aspects of sustainability management. For example:

- The Strategy Committee considers sustainability as part of the BOOST corporate strategy, the opportunities and risks related to sustainability, and the determination of the Executive Board's compensation with regard to sustainability-related aspects.
- The Audit Committee conducts a review of the sustainability report and examines risk-related aspects of sustainability.

The content and execution of their work are governed in greater detail in the rules of procedure for the Supervisory Board, Audit Committee, and Executive Board.

The Sustainability department informs the Executive Board and the Supervisory Board of relevant sustainability topics on a regular basis, at least once a year but also ad hoc. Prior to being submitted to the Supervisory Board, all information is verified by internal experts and persons with decision-making powers from, for example, departments, the ESG Board, or the Executive Board. We additionally involve external experts, depending on the topic, who provide subject-specific details or contribute their knowledge in view of the challenges and the status of implementation. The Executive Board provides the Supervisory Board's Audit Committee with regular, timely, and comprehensive information on all risks and opportunities of relevance to the Group, including on the topic of sustainability. The Supervisory Board's Audit Committee conducts an in-depth review of the risk report at least once a year and also on an ad-hoc basis if necessary.

Reporting on human rights issues to the entire Executive Board takes place at the meetings of the Executive Board, the Audit Committee, and the Supervisory Board and in the Compliance Committee. Furthermore, we organize regular, dedicated meetings and ad hoc individual conversations with the Executive Board member responsible for Integrity, Legal, IP, Data Protection, and Human Resources.

Knorr-Bremse has already integrated sustainability aspects in its Group-wide risk management and the internal control system (ICS). For example, this applies to due diligence processes for human rights, compliance with the Code of Conduct and with the Supplier Code of Conduct, and the topic of product safety. For details, please refer to the reporting on GOV-5 and the Report on Risks, Opportunities, and Expected Developments.

The managers monitor the setting and implementation of the sustainability targets through established organizational structures and systematic processes. The ESG Board is responsible for the joined-up processing, implementation and monitoring of the topics of the Knorr-Bremse sustainability strategy. The responsible function areas and divisions define strategies and targets to this end. Progress is monitored by means of indicators, regular reporting and internal reviews.

Skills and specialist knowledge

When appointing the members of the Executive Board the Supervisory Board pays particular attention to their specialist and social skills and to many years' experience in comparable positions, ideally in our sectors and in an international setting. In addition, it looks for a suitable character and appropriate educational background (university degree or comparable qualification). Furthermore, the Executive Board members should have in-depth expertise in sustainability.

The table below sets out the experience of the members of the Executive Board that is relevant for the sectors, products, and geographic locations of Knorr-Bremse. Table → 2.04

2.04 COMPETENCES OF THE MEMBERS OF THE EXECUTIVE BOARD

	Llistosella Strategy, Communication, IT, Information Security, Corporate Security, Internal Audit, and Digitalization	**Weber** Finance, Accounting, Controlling, Taxes, Treasury, M&A, Sustainability, and Investor Relations	**Dr. Mayfeld** Integrity, Legal, IP, Data Protection, and Human Resources	**Dr. Lange** Rail Vehicle Systems division	**Spies** Commercial Vehicle Systems division
Strategy	X	X	X	X	X
Environment		X		X	X
Social	X		X		
Corporate governance	X	X	X	X	X
Products	X			X	X
Risks/opportunities	X	X	X	X	X
Green finance		X	X		
Rail, commercial vehicle, and automotive industries (incl. supply sector)	X			X	X

Knorr-Bremse also pays attention to existing specialist knowledge related to sustainability in the composition and selection of the members of the Supervisory Board. According to the profile of skills and expertise of the Supervisory Board, the board members combined should have in-depth experience and knowledge in the following areas: (i) in the rail, commercial vehicle, and automotive industries including the supply industry, (ii) in research and development, especially in the area of relevant technologies for Knorr-Bremse and related areas, (iii) in the sustainability issues of importance for Knorr-Bremse in the fields of environment, social, and governance, including knowledge of the integration of sustainability objectives in the corporate strategy and of sustainable technologies and business models, (iv) with regard to digitalization and intelligent and digitally linked IT applications (Industry 4.0), (v) in the management of a large or medium-sized business with international operations, (vi), in production, marketing, and sales, (vii) with regard to personnel recruitment and development, (viii) in respect of accounting and financial reporting (including sustainability reporting) and auditing accounts (including audits of sustainability reporting), (ix) in controlling and risk management and (x) with regard to corporate governance and corporate compliance. Members do not need to be equally familiar with all specialist areas; rather, their various areas of expertise should be complementary.

The tables below set out the experience of the members of the Supervisory Board that is relevant for the sectors, products and geographic locations of Knorr-Bremse. Table → 2.05, Table → 2.06

2.05 SHAREHOLDER REPRESENTATIVES

	Dr. Ploss Chairman of the Supervisory Board	**Dr. Weimer** Deputy Chairman of the Supervisory Board	**Dahnke** Chair of the Audit Committee	**Dr. Nikutta**	**Dr. Sommer**	**Thiele-Schürhoff**
Rail, commercial vehicle, and automotive industries (incl. supply sector)	X			X	X	
Research and development (especially in the technologies of relevance for the company and related fields)	X				X	
Sustainability – environment	X	X		X		X
Sustainability – social	X	X		X		X
Sustainability – governance	X	X	X	X	X	
Digitalization/Industry 4.0	X	X		X		
Management of a large or medium-sized business with international operations	X	X	X	X	X	
Production, marketing, and sales				X		
Personnel recruitment and development	X			X		
Accounting and statutory audits (incl. audit of sustainability reporting)	X	X	X			
Controlling and risk management		X	X			
Corporate governance and corporate compliance	X	X	X	X	X	X

2.06 EMPLOYEE REPRESENTATIVES

	Birkeneder	Mittmann	Ratzisberger	Sedlmair	Nirschl	Walter
Rail, commercial vehicle, and automotive industries (incl. supply sector)	X	X	X	X	X	X
Research and development (especially in the technologies of relevance for the company and related fields)	X	X				
Sustainability – environment	X					
Sustainability – social		X	X	X	X	X
Sustainability – governance	X					
Digitalization/Industry 4.0	X					
Management of a large or medium-sized business with international operations						
Production, marketing, and sales	X	X	X		X	
Personnel recruitment and development	X	X	X	X	X	X
Accounting and statutory audits (incl. audit of sustainability reporting)	X				X	X
Controlling and risk management	X				X	X
Corporate governance and corporate compliance				X		

Knorr-Bremse ensures that the specialist knowledge of its board and committee members is kept up to date. Advice and knowledge are shared internally through bodies including the ESG Board, the Sustainability department, which reports directly to the Chief Financial Officer (CFO), and through regular reporting to the Executive Board and the Supervisory Board. Where required, external experts are called in. Thus, external training was offered to the Supervisory Board and the Executive Board in respect of sustainability and CSRD compliance in the reporting period. The said training formats for the Executive Board and Supervisory Board and the regular deliberations of the ESG Board ensure a close connection of the content to the material impacts, risks and opportunities of Knorr-Bremse with regard to sustainability.

The members of the Supervisory Board are personally responsible for pursuing the training and professional development that they need to perform their duties. They are given appropriate support by the Company for this; among other things it fully assumes any costs involved.

INFORMATION PROVIDED TO AND SUSTAINABILITY MATTERS ADDRESSED BY THE UNDERTAKING'S ADMINISTRATIVE, MANAGEMENT, AND SUPERVISORY BODIES [GOV-2]

The Executive Board and Supervisory Board are kept informed of relevant sustainability topics at regular intervals. Our ESG Board informs the Executive Board on new developments and the status quo in this field on a quarterly basis. The heads of the Sustainability department and relevant Group departments provide information on specific topics. In the reporting period, this included in-depth information on the CSRD, LkSG, the climate strategy, the design of risk management, and the result of the double materiality assessment. The Chief Financial Officer (CFO) and the Executive Board member for Integrity, Legal, IP, Data Protection, and Human Resources additionally take part in regular meetings with the Head of Sustainability and/or the Chief Compliance Officer and the Human Rights Officer.

In the reporting period, the Sustainability department kept the Supervisory Board informed of sustainability issues such as the implementation of the CSRD and the new compensation system at various meetings of the

Supervisory Board. Furthermore, the Supervisory Board was kept informed of the implementation of the LkSG.

Both the Executive Board and the Supervisory Board are notified of sustainability-related risks as part of risk management. This includes the material impacts, risks and opportunities in connection with sustainability and the effectiveness of the implemented directives, actions, and targets.

Through their involvement in the process of the materiality assessment, the Executive Board and Supervisory Board considered all material impacts, opportunities, and risks in the reporting period. An overview is provided under Material impacts, risks, and opportunities and their interaction with strategy and business model [SBM-3].

INTEGRATION OF SUSTAINABILITY-RELATED PERFORMANCE IN INCENTIVE SCHEMES [GOV-3]

By linking compensation with ESG criteria we seek to anchor more firmly the concept of sustainability in management as a whole and therefore also in the daily actions of our managers and our workforce. Our performance-based variable compensation system for members of the administrative and management bodies takes into account sustainability matters, climate-related criteria, and targets for reducing GHG emissions.

The compensation system for management levels 0 to 2 (Executive Board, Management Boards, regional Management Boards, and heads of department) sets incentives for achieving our sustainability targets. The variable, performance-related compensation component consists of two elements: a short-term incentive (STI) and a long-term incentive (LTI).

Short-term incentive

The variable compensation for a fiscal year is 20% tied to the achievement of ESG targets. The ESG targets, which are a performance criterion for short-term variable remuneration, were revised in the 2024 fiscal year. They consist of the criterion “own contribution to carbon neutrality” (sum of project-based energy efficiency increases and self-generated solar power) at a proportion of 50% and the criterion “work-related accidents per 200,000 contractual working hours,” similarly at a proportion of 50%.

Long-term incentive

In the long-term variable compensation (long-term incentive), 20% of the achievement of targets from the 2024 fiscal year onward will also be tied to the achievement of specific sustainability targets. They consist of the target achievement for the criterion “reduction of Scopes 1 + 2 CO_2e emissions,” weighted at 70%, and the criterion “employee satisfaction,” weighted at 30%.

On the basis of the compensation system the Supervisory Board defines a specific target total compensation for each Executive Board member, which should be in appropriate relation to the tasks and performance of the Executive Board member and the company’s situation. Furthermore, it should not exceed standard compensation without justification. The Supervisory Board reviews the Executive Board compensation on a regular basis to ensure it is appropriate and in line with the market. The Supervisory Board also regularly reviews the compensation structure of the Executive Board members to incentivize the company’s long-term performance.

Please see our Compensation Report for further information.

STATEMENT ON DUE DILIGENCE [GOV-4]

2.07 OVERVIEW OF THE CORE ELEMENTS

Core elements of due diligence	Paragraphs in the Sustainability Statement
a) Embedding due diligence in governance, strategy, and business model	ESRS 2 GOV-2 ESRS 2 GOV-3 ESRS 2 SBM-3
b) Engaging with affected stakeholders in all key steps of the due diligence	ESRS 2 GOV-2 ESRS 2 SBM-2 ESRS 2 IRO-1 ESRS 2 MDR-P ESRS E1 ESRS S1-2 ESRS S2-2 Entity-specific disclosures
c) Identifying and assessing adverse impacts	ESRS 2 IRO-1 ESRS 2 SBM-3
d) Taking actions to address those adverse impacts	ESRS 2 MDR-A ESRS E1-1 ESRS E1-3 ESRS E2-2 ESRS E3-2 ESRS E5-2 ESRS S1-4 ESRS S2-4 Entity-specific disclosures
e) Tracking the effectiveness of these efforts and communicating	ESRS 2 MDR-M ESRS 2 MDR-T ESRS E1-5 ESRS E1-6 ESRS E2-2 ESRS S1-5 ESRS S1-9 ESRS S1-12 ESRS S1-13 ESRS S1-15 ESRS S1-16 ESRS S1-17 ESRS S2-5 Entity-specific disclosures

RISK MANAGEMENT AND INTERNAL CONTROLS [GOV-5]

Information on our risk management and the internal control procedures with regard to sustainability reporting can be found in the Report on Risks, Opportunities, and Expected Developments.

Strategy

STRATEGY, BUSINESS MODEL, AND VALUE CHAIN [SBM-1]

As a successful global player in the mobility industry in the field of brakes and in other rail and commercial vehicle systems, developing solutions for safe, efficient, and sustainable transportation is an integral part of Knorr-Bremse's corporate identity. By fulfilling our aim of taking a consistently responsible approach to employees, partners, the environment, and society, we are making a contribution to sustainable development. Accordingly, we have integrated sustainability into the strategy and business model of Knorr-Bremse. Sustainability is anchored as a strategic, cross-cutting topic in the BOOST strategy program through the key pillars of "products," "processes," and "people". In this way we seek to further strengthen our market position, innovation capacity, and operational resilience.

With our product and service portfolio, we want to actively accompany and promote our customers worldwide in the transformation of the rail and commercial vehicle segments as they move toward sustainable mobility. Our focus on the highest level of safety, longevity, conservation of resources, and avoiding emissions supports us and our customers in the achievement of the sustainability targets. At the same time, we are working on the systematic and continuous integration of sustainability in decision-making processes and on the implementation of actions. We counter challenges such as decarbonization across the value chain, regulatory requirements, and resource inefficiency through, for example, new technological customer solutions to reduce emissions, the expansion of renewable energies and energy efficiency measures, and direct cooperation with our suppliers. As part of the strategic pillar of "people," we are increasingly initiating actions on cultural change, organizational transformation, and talent management. In this way we seek to help strengthen our attractiveness as an employer over the long term and attract and retain the best specialist staff and managers.

To ensure that Knorr-Bremse has access to the capital market at moderate costs, both in the medium and long term, Knorr-Bremse has implemented green financial instruments in its financing structure. In September 2024, for example, a green bond was issued in the context of capital market financing for the first time. Its proceeds will be invested in suitable sustainability projects with a focus on clean transport, renewable energies, energy efficiency, and green buildings. This allocation follows the Green Financing Framework published by Knorr-Bremse in August 2024, which is in accordance with the Green Bond Principles of the ICMA (International Capital Market Association) and is followed up through allocation and impact reporting.

A description of the main markets, products, and services on offer and of the business model and the value chain can be found in the Business Model/Structure of the Group section of the About the Group chapter. Fundamental information on the benefits our company and our technological developments and solutions offer to our stakeholders are detailed in the Research & Development section. The number of employees by geographical areas is set out in the Employees section.

INTERESTS AND VIEWS OF OUR STAKEHOLDERS [SBM-2]

We see trusting collaboration and open exchange with stakeholders as the basis for our sustainable business success. We conduct our dialog through established communication and event formats such as direct conversations with customers, trade fairs, active association work, talk with investors, our Annual General Meeting, and the communication with employees. This exchange allows us to understand the needs, interests, and viewpoints of different stakeholder groups better and integrate them successfully. In addition, we want to inform them of our sustainability activities. The stakeholder dialog also helps us determine our main topics, to promote a joint understanding of sustainability, and to develop new approaches to solutions. Through our exchange with stakeholder groups, we want to detect trends, global developments, and market requirements early and to continue meeting their expectations in the future.

Detailed information on the involvement of the most important stakeholders for us are set out in the following table. Table → 2.08

2.08 INVOLVEMENT OF OUR STAKEHOLDERS

Stakeholders and category	Format of involvement	Purpose of involvement	Action on results of the involvement
Financial market players (investors, shareholders, lenders) (users)	• Regular dialog and information formats such as the Annual General Meeting, roadshows, and conferences • (Individual) meetings with investors and lenders • Investor Relations website with extensive information material (e.g., presentations, financial reports) • ESG ratings	• Fulfillment of information disclosure obligations/requirements • Proactive and service-oriented provision of information to investors • Identification of the ESG priorities of the stakeholder group • Securing of optimal financing options • Regulatory compliance • Reputation enhancement through transparency • Long-term income growth • Risk minimization	• Consideration in business and sustainability strategies • Identification of improvement measures • Offer and use of financing instruments • Long-term partnerships • Risk management
Authorities (users)	• Responding to public requests, studies • Dialog with public authorities on sustainability-related questions • Dialog with public authorities to obtain approvals	• Ensuring legal compliance • Risk minimization • Support in the implementation of sustainable product solutions • Reputation enhancement • Transparency • Interest-driven politics	• Adjustment/strengthening of business model • Risk management • Ensuring compliance • Early detection of regulatory changes • Access to expert knowledge and subsidies • Increased customer confidence
Associations (affected parties, users)	• Membership in trade associations Rail vehicles: European Rail Supply Industry Association (UNIFE) Verband der Bahnindustrie in Deutschland (VDB, German Railway Industry Association); Commercial vehicles: Verband der Automobilindustrie (VDA, German Association of the Automotive Industry), Motor & Equipment Manufacturers Association (MEMA), co$_2$ncept plus • Representation in committees and active project work (e.g., at Railsponsible, UNIFE, VDA) • Specialist presentations at industry events	• Exchanges/benchmarking with industry members on the prioritization of ESG topics • Exchanges on statutory requirements and implementation impetus • Joint commenting on proposed legislation within the relevant legislature • Creating momentum on topics of particular relevance, such as transportation safety, mobility transition, climate protection, etc.	• Reprioritization within the sustainability strategy (if necessary) to ensure consistency and completeness within the industry • Inclusion of best practice in the context of implementation • Adaptation of own activities • Risk management

Employees and company management (affected parties, users)	• Involvement of relevant departments in the double materiality assessment (DMA) process via surveys, interviews, and workshops • Regular consultations, e.g., divisional ESG Boards, employee satisfaction surveys, etc. • Onboarding of new employees • Regular dialog between employees and managers (e.g., Staff Dialogue, Leadership Feedback, target setting) • Events for employees, such as town hall meetings • Global workshops for the further development of the corporate culture • Local actions, e.g., Diversity, Equity, and Inclusion (DEI) Day, Knorr-Bremse Day • Direct ESG-related communication • Volunteering • Internal platforms and opportunities for exchange • Measures to get employees involved • Training and further development on sustainability • Employee meetings	• Exchange on overarching and regional/local ESG priorities • Information and exchange on Group-wide ESG strategy, in particular risks and opportunities • Merging activities and consolidation in global ESG strategy • Further development of the corporate culture • Imparting knowledge and generating momentum on current issues • Increase in transparency • Improvement in HSE performance	• Measures to further develop the corporate culture • Update of internal policies • Improvements and action plans • Communication on the intranet • Global initiatives and campaigns • Company agreements • Alignment with sustainability strategy and targets • Ongoing review of the materiality process and of results (with ESG Board)
Suppliers and business partners (affected parties, users)	• Involvement in DMA process through industry associations (Railsponsible, CLEPA) and selected direct conversations • Regular conversations with suppliers, assessments and audits, and follow-up conversations • Training and issue of training documents, e.g., on conflict minerals • Conferences and supplier days • Supplier due diligence • Industry collaboration (e.g., Railsponsible, Responsible Minerals Initiative) • Associations (e.g., German Association of the Automotive Industry [VDA])	• Risk minimization • Promotion of environmental and social standards in the supply chain • Quality assurance • Competitive advantages • Identification and, if applicable, access to innovative technologies • Compliance with Supplier Code of Conduct • Conflict minerals due diligence • Support for the safeguarding of human rights • Decarbonization of our supply chain and calculation of Scope 3 • Compliance with regulatory requirements, such as the Carbon Border Adjustment Mechanism (CBAM)	• Improved sustainability services • Supplier development plans • Supplier evaluation and selection • Risk analysis • Calculation of Scope 3 emissions • Building long-term partnerships • Increased transparency and supply chain traceability • Minimizing risks
Customers (affected parties, users)	• Involvement in DMA process through industry associations (Railsponsible, CLEPA) • Direct meetings and visits with customers • Trade fairs, congresses and events • Customer satisfaction surveys • Responding to customer requests • Membership and active project work in industry associations	• Support in the transformation toward green mobility • Customer relationships based on trust • Offering of sustainable product and system solutions to support our customers in achieving their ESG targets • Support of transportation safety and the mobility transition • Reduction in customers' emissions • Customer satisfaction • Development of industry standards • Supply chain information • Input on strategic focus topics	• Improvement of product and system solutions • Adaptation of the communication strategy • Involvement in DMA processes • Improvement of customer relationships • Adjustment to sustainability practices and measurement standards • Positive reputation • Resource-efficient production • Product quality

Local communities (affected parties, users)	• Exchange with local and technical interest groups (participation in local economic initiatives: such as the Munich business community's second Climate Pact or the Environment and Energy Committee of the Chamber of Commerce and Industry for Munich and Upper Bavaria) • Activities in the area of public relations work (e.g., *Schiene gegen Lärm* ("Rail against Noise") • Face-to-face contact, e.g., visitor groups during site tours and open day for school classes • Cooperation with local NGOs and other aid initiatives as part of Local Care and Global Care projects at our locations • Membership of the German UN Global Compact network	• Information of, and exchange with, local communities (good corporate citizen) • Strengthening local initiatives • Awareness of potential concerns by local communities • Building up trust and attractiveness as an employer	• Location-specific Local Care initiatives • Participation in local initiatives • Contribution to research results • Attractive employer
Environment (affected parties)	• Environmental data • Environmental Impact Assessment • Studies and reports (e.g., WWF Biodiversity Risk Filter, assessment of climate-related physical risks, Aqueduct Water Risk Atlas, etc.) • ISO 14001 and ISO 50001 certifications	• Life cycle assessment • Scientific studies	• Efficiency gains in production processes • Sustainable product portfolio • Production safety
Potential new employees and young talents (affected parties)	• Partnerships and projects with schools, colleges, universities, and educational institutions • Presence at university fairs and events • Mentoring programs and events to promote women	• Appealing to and recruiting young talent • Supporting women (especially in STEM professions)	• Attractive employer • Recruiting new talent

We integrate the interests and viewpoints of stakeholders into our Group-wide sustainability strategy, which forms part of the BOOST corporate strategy. We receive information on this topic from sources including internal risk analyses, rating results, customer dialog, and investor inquiries on the subject of sustainability. In addition, the Global Employee Survey (GES) provides valuable insights and findings that influence our corporate strategy, processes, and actions.

In the reporting period, stakeholder consultations and their results did not lead to a need to adjust the strategy and business model of Knorr-Bremse.

The Executive Board and Supervisory Board are kept informed of the viewpoints and interests of the stakeholders concerned with regard to the sustainability-related impacts from Knorr-Bremse. This information is provided in the form of written and verbal reports inside and outside meetings. It includes, for example, analyses of rating results, customer expectations, and information on regulatory developments together with regular progress reports.

MATERIAL IMPACTS, RISKS, AND OPPORTUNITIES AND THEIR INTERACTION WITH STRATEGY AND BUSINESS MODEL [SBM-3]

To assess the materiality of the sustainability topics, we performed a double materiality assessment (DMA) in line with ESRS 1 section 3. The result is a detailed overview of our material impacts on people and/or the environment and of the material financial risks and opportunities along the following topics and sub-topics pursuant to ESRS 1 AR 16. **Table → 2.09**

2.09 MATERIAL SUSTAINABILITY MATTERS

Standard	Topic	Sub-topic
ESRS E1	Climate change	• Greenhouse gas (GHG) emissions • Climate change adaptation • Energy consumption and mix
ESRS E2	Pollution	• Pollution of air, water, soil • Substances of (very high) concern
ESRS E3	Water and marine resources	• Water withdrawal and consumption
ESRS E5	Resource use and circular economy	• Resource inflows • Products and materials • Waste
ESRS S1	Own workforce	• Health and safety in the workplace • Personnel development • Diversity, equal opportunities, and inclusion • Working conditions • Adequate wages • Human rights
ESRS S2	Workers in the value chain	• Human rights
ESRS G1	Business conduct	• Corporate culture and business conduct • Compliance • Corruption and bribery • Protection of whistleblowers • Management of relationships with suppliers • Payment practices • Human rights
Entity-specific disclosures	Product and system safety	

The results of the DMA are reported in table form in the relevant topic-specific chapters. In addition, the overview shows where the individual results appear in our business model, in our own activities, and in our upstream and downstream value chains. The expected time horizon is specified, in particular, for the impacts identified as potential.

In the context of the materiality assessment we identified no current financial implications of the material risks and opportunities on our financial position, financial performance, and cash flows. At the same time, no material risks and opportunities were identified for the 2025 reporting period that might necessitate a material adjustment to the carrying amounts of the assets and liabilities reported in the annual financial statements.

We also identified and evaluated potentially material company-specific impacts, opportunities and risks not covered by the ESRS. Thus, the topic of product and system safety, which is assessed as material, is explained as part of this Group Sustainability Statement. We also report on the sustainability matter of noise under the “pollution” topic.

Resilience of our strategy and our business model

To develop our sustainability strategy as part of the corporate strategy, we use not only international guidelines and concepts from stakeholder analyses, such as external ratings and customer assessments, but also, in particular, findings from our materiality assessment. As part of this process, we assess how the material matters are connected to our business model. The resulting overarching sustainability program and the measures derived from it are designed to help manage the material negative impacts and risks and to take advantage of material opportunities. Identified measures are anchored in the corporate strategy, assigned responsibilities, and integrated into our processes.

A regular review and adjustment of the sustainability program is planned to allow new developments to be taken up and considered, based on the sustainability due diligence process and the annual update of the materiality assessment. This approach supports the overarching purpose of increasing the resilience of Knorr-Bremse as a company in general. The courses of action with regard to the material topics (according to the ESRS standards) are described below.

Climate change

Our business activities are associated with greenhouse gas emissions and thus with negative impacts on the climate. With our Climate Strategy 2030, we seek to contribute to the 2015 UN Paris Agreement target of limiting global warming to significantly well below 2 degrees Celsius and, in a best-case scenario, to a maximum of 1.5 degrees Celsius. We have anchored corresponding targets, actions, and programs in a transition plan for climate change mitigation. To enable climate-friendly mobility and strengthen our resilience against the consequences of climate change we rely on innovative product solutions for our customers in the area of low-emission mobility, the development of energy-efficient production processes, the increased use of renewable energies, and the assessment of climate risks.

Pollution

Through our integrated environmental management we continuously seek to reduce the burdens on the environment caused by our business activities, such as emissions of pollutants in water, air, and soil. We therefore seek to reduce the use of raw materials, consumables, and supplies. Moreover, we aim to widen our offering of brake technologies with reduced or no particulate emissions and establish them on the market.

Water resources

We strive toward the efficient and resource-efficient use of water and, in doing so, account for the different requirements and needs of our locations around the world. These efforts are based on water risk analyses, water-saving production technologies, water recycling, and effective wastewater management.

Resource use and circular economy

Through product development that is geared to the conservation of resources we are able to make an important contribution to climate change mitigation and protection of the environment, take advantage of market opportunities, and counter risks at product level. Our EcoDesign approach integrates sustainability criteria such as recyclability, longevity, conservation of resources, and the avoidance of emissions systematically into our product development processes. Furthermore, we design our products for remanufacturing and the possibility of reconditioning right from the development and design stage. In the RailServices and TruckServices business Knorr-Bremse industrially refurbishes products, thereby extending their useful life and optimizing resource expenditure. Our waste management practices are designed to avoid waste – be it raw materials generated during production, packaging, or other waste at the location.

Own workforce

Knorr-Bremse's leading market position can only be consolidated with well-qualified and motivated employees. Our strategic personnel development relies on the recruitment of new, well-qualified talent and the individual further development of employees and managers. Good employment conditions form the basis for satisfied employees. Alongside an open and supportive corporate culture, this includes pay in line with the market, an appropriate work-life balance, high occupational health and safety standards, and the active promotion of equal opportunity and diversity.

Workers in the value chain

The selection of suppliers has a significant impact on our performance. At the same time, it influences the environment and society in production countries. The impacts also relate to the working and living conditions of employees in the value chain. We implement a broad range of actions to avoid human rights-related risks for employees and reputational and business risks for Knorr-Bremse. They extend from risk analysis and the establishment of grievance mechanisms to the implementation of procurement guidelines, supplier audits, and support for local procurement and supplier training.

Business conduct

Responsible corporate governance helps us gain the trust of society, customers, and employees and minimizes reputational and legal risks. We view compliance with laws, internal regulations, and voluntary commitments together with combating corruption and bribery as a prerequisite for this. We strengthen our integrity and corporate culture through a large number of instruments and measures. They include the compliance management system, risk management, supplier management, training our employees, promoting the idea of managers as being role models, and a stakeholder dialog based on trust.

Product and system safety

Knorr-Bremse products for rail and commercial vehicles are extremely relevant for safety in mobility. Our customers can rely on our technological excellence and the high quality and safety level of our products. Both divisions employ integrated management systems. Their processes satisfy internally defined requirements and should also meet regulatory or customer requirements regarding quality assurance and environmental and health protection. Thanks to extensive capital expenditure on research and development we have been able to continue increasing the quality and safety of our products.

Management of impacts, risks, and opportunities

PROCESSES TO IDENTIFY AND ASSESS MATERIAL IMPACTS, RISKS, AND OPPORTUNITIES [IRO-1]

We determined the major topics for the orientation of our sustainability management and for our reporting in 2023 by means of a double materiality assessment in accordance with CSRD/ESRS requirements.

The materiality assessment was performed as part of a multi-level process with the targeted involvement of interested stakeholders affected. Its basis was an analysis of the segments of our two value chains (RVS and CVS) and identification of the relevant internal and external stakeholder categories in the various areas and regions of our Group. Building on this, we developed a comprehensive concept to involve the individual stakeholders in the materiality assessment process. The four most important formats were as follows: 1. online surveys, 2. interviews with (in part, external) experts, departments, and central decision-makers, 3. workshops with internal specialists from relevant areas of our value chain, and 4. benchmarking with the peer groups in our industries (Railsponsible and CLEPA). A preliminary materiality matrix subsequently served as the basis for the validation of results with the involvement of internal experts and external stakeholders. The results of the materiality assessment were validated by the Sustainability department, and the entire Executive Board and the Supervisory Board reviewed and approved the material topics.

An overview of the material sustainability matters of Knorr-Bremse can be found in the Material impacts, risks, and opportunities and their interaction with strategy and business model [SBM-3] chapter.

Impact Materiality

We determine the materiality of impacts on the basis of the sustainability due diligence process that has been established at Knorr-Bremse (see the Statement on due diligence [GOV-4] chapter).

The sustainability matters pursuant to ESRS 1 AR 16 were the starting point for determining potentially material topics and the associated impacts, financial risks, and opportunities. Furthermore, we examined sector-specific topics such as product and system safety. To determine, evaluate and prioritize the actual and potential impacts we analyzed our own business activities, our business relationships and the various levels of our value chain, starting from raw material extraction through to the end of the product life. Along the value chain, we took into account the respective locations' various business activities (such as production and office activity) as well as their regions.

Building on the initial analysis of the value chain, we determined and assessed impacts that are influenced by our own activities or business relationships. To analyze the upstream value chains, a hotspot analysis was conducted with the support of external consultants, analyzing the three most important materials we purchase (aluminum, iron/steel, and circuit boards). With regard to our own operations, the focus was on our two divisions, RVS and CVS. A broad range of internal stakeholders was involved, such as those responsible for compliance, human resources, human rights, and risk management. This approach was designed to ensure that the review takes into account the technical expertise and the perspectives of all relevant functions and regions. The analysis of the downstream value chains involved exchanges of expertise with internal stakeholders (e.g., EcoDesign, Sales) and customers as well as benchmarking with peer groups.

We involved external experts in the various process steps depending on how affected they are and on their function – both directly and indirectly. Our main focus here was on the two main groups of external shareholders: affected stakeholders and users of sustainability statements (including civil society, non-governmental organizations, governments, academics, and analysts). Some stakeholders belong to both groups.

The selection of the internal stakeholders was based on direct connections to specific subsegments of our value chains. We used direct consultations to determine the perspectives of our customers and the views of peer groups (Railsponsible, CLEPA benchmark and selected dialog formats with participants in peer groups). We gathered the perspective of experts in the same way. Additional stakeholders were involved indirectly. Examples include peer group benchmarks or publicly accessible information such as position papers, field reports or studies. Previous experience, such as supplier audits or exchanges with our suppliers, was also included.

The materiality of impacts of the various sustainability topics was assessed independently of each other. In the process, we analyzed the actual and potential impacts on humans and the environment that are directly related to our operating procedures, products or services. Furthermore, various time horizons were examined for potential impacts in order to show the short-, medium-, and long-term impacts of individual sustainability matters.

The degree of severity of the negative impacts was assessed using the total of severity parameters (scale, scope, irreversibility), on the one hand, and the likelihood of occurrence (for potential impacts), on the other. Positive impacts were assessed on the basis of the total of scale and scope and the likelihood of occurrence (for positive impacts). We perform a qualitative and quantitative assessment of the likelihood of occurrence of future positive and negative impacts. To establish the material impact we determined a threshold value for materiality that is based on the implementation guidance of the European Financial Reporting Advisory Group (EFRAG). We subjected the topics with a classification just below or above this value to a further analysis.

Financial materiality

The materiality of the impacts and the financial aspects are closely connected. For this reason, the interdependencies between the two dimensions were taken into account in the assessment. This applies, in particular, to the financial risks and opportunities resulting from our impacts. As a first step, the impact was analyzed to identify the resulting specific (potential) risks and opportunities in exchanges with the relevant departments. This pre-selection was subsequently discussed with a broader group of internal stakeholders, including risk managers.

We evaluated the financial materiality separately for every sustainability topic. This was done using the likelihood of occurrence and size of the potential financial implications of identified risks and opportunities. As part of the process, actual and future gross risks and opportunities that have or may have an impact on our financial results were taken into account. We also included sustainability-related risks and opportunities linked directly to our operational processes, products, and services. In the course of the analysis process the sustainability-related risks and all other risk categories were treated equally and various different time horizons analyzed (less/more than 3 years). The likelihood of occurrence and magnitude of the financial implications were assessed in line with risk management by means of a scale.

To determine material risks and opportunities we set a threshold value for materiality on the basis of the EFRAG implementation guidance. We subjected the topics with a classification just below or above this value to a further analysis.

Integration of the materiality assessment into further processes

The Supervisory Board, Executive Board, and ESG Board reviewed and approved the process and the results of the materiality assessment. The results of the analysis were included in the sustainability strategy for procedural implementation and are continuously reviewed as part of sustainability management.

Within our integrated management of risks and opportunities we have expanded the established range of financial risks to include non-financial ESG risks and opportunities. The reporting, discussion, and assessment of these comprehensive risks take place on a quarterly basis as part of an Executive Board meeting. Further details of the risk management process are described in the Report on Risks, Opportunities, and Expected Developments. We included the opportunities resulting from material sustainability matters in our risk assessment tool. They thus also form part of our risk report. The necessary strategic implications are also included in our overall strategy.

Input parameters

We used external scientific sources and analysis tools as input parameters, especially for the impacts on people and the environment. To evaluate our impacts, we used specific reports and data on the environmental impacts (e.g., the WWF Biodiversity Risk Filter or the Aqueduct Water Risk Atlas). Further important assessment tool included relevant ISO standards, human rights-related risk analyses, employee surveys, already available internal metrics (e.g., on waste and water), and supplier information.

Future reporting

To comply with the CSRD requirements we switched from the materiality-based methodology of the NFRD to the double materiality assessment in 2023. The materiality assessment will in future be reviewed continuously in the Sustainability department and validated once a year to ensure it is up to date. We will subsequently communicate the results in our annual reporting in a transparent manner. New developments in the course of the year, which we record by means of our stakeholder and risk assessment tools, are also included in our risk analysis.

PROCESSES TO IDENTIFY AND ASSESS MATERIAL IMPACTS, RISKS, AND OPPORTUNITIES [IRO-1]

Climate change [E1]

Various analyses were performed for the impacts, risks, and opportunities associated with climate change. We analyzed the impacts of Knorr-Bremse on climate change by means of the actual greenhouse gas (GHG) emissions. The production-related emissions (Scope 1 and Scope 2) and indirect emissions (Scope 3) from purchased goods and services (Scope 3.1), transportation and logistics (Scope 3.4), and the use of our sold products (Scope 3.11) were taken into account. Moreover, an estimate was made of future emissions when considering the GHG emission reduction targets validated by the Science Based Targets initiative (SBTi) and already initiated reduction measures, e.g., internal renewable energy production.

We analyzed potential physical climate risks across the entire value chain during the reporting period. For this purpose, our own locations as well as locations of suppliers considered material were identified using geocoordinates and investigated for various physical risks with an external tool. The analysis evaluated the likelihood of occurrence and intensity of potential climate risks and classified them as either acute or chronic. Furthermore, we performed a qualitative analysis of the climate risks in our sales markets. To assess the physical risks, we used the SSP5-8.5 high-emissions scenario of the Intergovernmental Panel on Climate Change (IPCC) in which the global average temperature rises by 4.4 degrees Celsius by the end of the century. The selection was based on the precautionary principle in order to take the worst-case scenario into account in the analysis. The climate risks were analyzed for the reporting period (short-term) and for the time horizons 2030 (medium-term) and 2050 (long-term) and therefore take into account the medium-term and long-term useful life of buildings and installations. These time horizons are moreover based on the transition plan for climate change mitigation and the associated capital expenditure.

We performed a qualitative scenario analysis for the reporting period as well as the years 2030 and 2050 to evaluate the potential transition risks and opportunities. The findings from the TCFD analyses of the previous years and the results from the exchange with the strategy departments of the two divisions were incorporated into the analysis process.

For the scenario analysis we focused on the material transition risks and opportunities in the supply chain, in our own production, and in our sales markets. To this end, we evaluated the transition events of relevance for Knorr-Bremse with regard to their likelihood of occurrence, their extent and duration. The two business divisions RVS and CVS were analyzed separately. For our analysis we selected the 1.5 degree scenario of the International Energy Agency (IEA), “Net Zero Emissions by 2050,” which describes an ambitious path to limit global warming and, in doing so, makes the potential risks and uncertainty of this transition transparent. It serves as the basis for the evaluation of potential risks and opportunities in the transition to a low-emissions economy. To this end, considerable capital expenditure on clean energy technologies and infrastructure as well as strong political action and incentives are required. In this scenario the energy mix is shifting strongly in the direction of renewable energies, with a substantial decrease in the use of fossil fuels. The electrification of industry and transportation is viewed as a key building block for decarbonization. In the CVS division, in particular, the rapid establishment of this technology plays a major role in the transition toward zero-emission mobility of commercial vehicles. The global view of this scenario reflects our activity on various continents.

We have identified no assets or business activities that are incompatible with the transition to a climate-neutral economy on account of locked-in GHG emissions, for example. Further information can be found in the Transition plan for climate change mitigation [E1-1] chapter.

The accounting for climate-related targets in the financial report (critical climate-related assumptions) is based on the results of the climate risk analysis that is supported by the two underlying climate scenarios.

Pollution [E2]

To determine the impacts, risks, and opportunities in connection with pollution in our own operations, we examined the amount of pollutants and the use of substances of (very high) concern at a representative selection of production locations. In this process we are guided by the thresholds of the E-PRTR (European Pollutant Release and Transfer Register) Regulation and the REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) Regulation. The material actions with an impact on the upstream value chain include the production of the purchased materials (e.g., steel, aluminum, and PCB) and energy. This was calculated through an analysis of emission hotspots across our value chain, conducted by an external contractor. In the downstream value chain, the material impacts include rail or truck braking processes that can cause pollution of air, water, or soil. We regularly maintain exchange with representatives of the affected stakeholders on the topic of noise pollution during the product use phase.

For 2024, the first reporting period, we are applying ESRS1, 133 and not publishing any metrics on substances of (very high) concern because the information from the upstream value chain is not yet sufficiently consistent and reliable. Most of the required data is available, although we have initiated additional actions to further improve the data quality. They include intensified cooperation with our suppliers and optimized tracking systems of the procurement activities. Our aim is to provide well-founded metrics on substances of (very high) concern in future reporting periods. Using this data that will become available, we will also draw up concepts, actions, and targets and report on them.

Water resources [E3]
The impact of our business activities on water consumption and discharge was analyzed and evaluated by means of relevant metrics. We carried out a detailed water risk analysis to assess water-related risks related to water scarcity. To this end, we used the Aqueduct Water Risk Atlas and examined our locations globally and more than 7,000 locations of our suppliers. We identified China, India, Australia, Mexico, the US, Italy, Spain, and Turkey as material regions for a heightened water risk both in our own business operations and in the upstream value chain. The industry sectors in the upstream value chain with material impacts, risks, and opportunities with regard to water are steel, aluminum, and electronics, as found in an analysis of the environmental impacts of our value chain which was conducted by an external contractor and is described in [IRO-1]. In our own business operations, the water-related impacts and risks are associated with production activities such as surface treatment and cooling processes in production.

Biodiversity [E4]
We identified a small number of locations of ours in proximity to biodiversity-sensitive areas. These locations were assessed using an external tool with regard to actual and potential impacts, risks, and opportunities in the area of biodiversity. We also studied transition risks and physical risks in this context. The assessment incorporated the entire value chain similarly to the approach described in the Impact materiality section of the Processes to identify and assess material impacts, risks, and opportunities [IRO-1] chapter. By means of the analysis, which was performed without including systemic risks, no material negative impact was determined. As a result, mitigation measures are not required at present. An equivalent analysis for supplier locations is planned for the future.

Resource use and circular economy [E5]
We analyzed impacts, risks, and opportunities in resource use and waste management across the entire value chain. Among businesses in the upstream value chain, a specialized contractor conducted industry-specific analyses of the main goods categories, i.e., steel, aluminum, and circuit boards. Key environmental and social aspects such as emissions, resource consumption, and human rights risks were investigated as part of this. In our own field of business, waste management was assessed based on the corresponding prior-year waste metrics (e.g., share of recycling in total waste, share of hazardous and non-hazardous waste) without taking into account specific thresholds for this. In the downstream value chain we analyzed the impact of our products in the use and disposal phases.

Business conduct [G1]
The governance structures and practices of Knorr-Bremse are analyzed by taking into account regional differences. This was done by applying our global governance standards, which apply uniformly to all our business activities. We classified our two divisions RVS and CVS as comparable and therefore did not differentiate between them. For M&A activities we reviewed whether the governance practices of the potential contracting parties are in accordance with our ethical standards.

COVERED DISCLOSURE REQUIREMENTS [IRO-2]
In line with ESRS 1 Annex E, the material sustainability matters of ESRS 1 AR16 and the associated disclosure requirements were determined on the basis of the identified impacts, risks, and opportunities. Data points on metrics were examined individually in accordance with ESRS 1 Annex E to evaluate their materiality. In the process, the thresholds for the materiality of information were defined on a case-by-case basis.

Indexes for the covering of disclosure requirements and on data points derived from other EU legal provisions are listed in the appendix to the Sustainability Statement.

EU Taxonomy

A key element in the achievement of the EU climate and energy targets and in the realization of the European Green Deal's aims is the directing of capital flows toward sustainable activities. For this reason, a taxonomy or classification system for environmentally sustainable economic activities has been introduced that is based on the Action Plan on Financing Sustainable Growth.

Under the EU Taxonomy Regulation 2020/852, and pursuant to Article 8 on transparency in non-financial statements, Knorr-Bremse is required to disclose its environmentally sustainable economic activities and the associated taxonomy-eligible and taxonomy-aligned revenue, capital expenditure (CapEx), and operating expenditure (OpEx). An economic activity is deemed taxonomy-eligible if it is described in one of the delegated acts supplementing the Taxonomy Regulation. These acts include Commission Delegated Regulation 2021/2139 ("Climate Delegated Act") and Commission Delegated Regulation 2023/2485 amending the climate taxonomy, which both define economic activities related to the environmental objectives of climate change mitigation and climate change adaptation. In addition, Delegated Regulation 2023/2486 ("Environmental Delegated Act") defines further economic activities with regard to the environmental objectives of sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. An economic activity is taxonomy-aligned if it meets the technical screening criteria set out in the delegated acts and is undertaken in accordance with the minimum safeguards with respect to human rights, bribery and corruption, fair competition, and taxation. To meet the technical screening criteria, an activity must contribute substantially to one or more environmental objectives without doing significant harm to other environmental objectives. While there was previously no disclosure requirement for the taxonomy alignment of the economic activities listed in the amended climate taxonomy and the environmental taxonomy, this information is mandatory for all economic activities from the 2024 reporting period onward.

Both the examination of taxonomy eligibility and the screening of taxonomy alignment are based on the descriptions of economic activities defined in Commission Delegated Regulations 2021/2139, 2023/2485, and 2023/2486 and the relevant technical screening criteria. Commission Delegated Regulation 2022/1214, supplementing the climate taxonomy, stipulates particular disclosure obligations in connection with gas and nuclear energy activities. Since Knorr-Bremse does not carry out any industrial activities in these areas, Knorr-Bremse's reporting is not subject to any disclosure requirements for the corresponding revenue, CapEx, and OpEx KPIs other than the disclosure of the first reporting template of the supplementing Delegated Regulation 2022/1214. Table → 2.55

When preparing the disclosures required under the EU Taxonomy for the 2024 fiscal year, Knorr-Bremse duly considered and took into account the European Commission Notice on the Interpretation and Implementation of Certain Legal Provisions of the EU Taxonomy Climate Delegated Act and the Commission Notice on the Interpretation and Implementation of Certain Legal Provisions of the Disclosures Delegated Act under Article 8 of the EU Taxonomy Regulation, from October 20, 2023, as well as the published draft notice of November 29, 2024.

Analysis of taxonomy eligibility

The EU Taxonomy refers both to economic activities that fall within Knorr-Bremse's core business and to capital expenditure and operating expenditure that is not directly connected with the core business, such as individual measures in the field of buildings.

With regard to the environmental objective of climate change mitigation (CCM), the EU Taxonomy recognizes that the manufacture of low-carbon vehicles, as well as of rail vehicles and rail infrastructure, relies on components that play a key role in reducing greenhouse gas emissions or, in the case of rail transport, are essential for environmental performance, operation, and functioning over the lifetime of trains and rail infrastructure. For Knorr-Bremse, as a manufacturer of commercial and rail vehicle systems, the relevant economic activities are therefore CCM 3.18 "manufacture of automotive and mobility components" and CCM 3.19 "manufacture of rail rolling stock constituents," along with activity CCM 6.14 "infrastructure for rail transport." With regard to activity 3.18, Knorr-Bremse's portfolio was examined to identify the product families that play a significant role in the provision of low-carbon vehicles and the improvement of their environmental performance. For the manufacture of rail rolling stock constituents and rail transport infrastructure, the company considered the subsystems listed in Annex II of Directive 2016/797. The subsystems listed under point 2.7 were assessed as material for the environmental performance, operation, and functioning of rail vehicles and were therefore reported under activity CCM 3.19. Environmental performance is not limited to reducing CO_2 emissions. For activity CCM 6.14, meanwhile, the company took into account the subsystems listed in points 2.2–2.6. Alongside climate change mitigation, we have identified the economic activity CE 4.1 "provision of IT/OT data-driven solutions" – which falls under the circular economy (CE) objective – as relevant. These solutions include systems for software and information technology or operational technology which were designed for the purpose of remote monitoring and predictive maintenance. Since further dynamic developments surrounding the EU Taxonomy regulations may lead to adjustments in the interpretation of the respective economic activities, Knorr-Bremse will continue to monitor them closely. The following table lists the economic activities of Knorr-Bremse that are taxonomy-eligible. Table → 2.10

2.10 OVERVIEW OF TAXONOMY-ELIGIBLE ECONOMIC ACTIVITIES

Taxonomy-eligible activity	Description of the activity	Knorr-Bremse economic activity
CCM 3.18 Manufacture of automotive and mobility components	Manufacture, repair, maintenance, retrofitting, repurposing, and upgrade of mobility components for zero-emission personal mobility devices and of automotive and mobility systems, components, separate technical units, parts, and spare parts, essential for delivering and improving the environmental performance of end vehicles of the categories M1, M2, M3, N1, N2, and N3	Manufacture of products and systems – such as brake control systems, compressors, and driver assistance systems, along with related spare parts and services – which are essential to providing, and improving the environmental performance of, trucks or buses that do not directly produce direct CO_2 emissions
CCM 3.19 Manufacture of rail rolling stock constituents	Manufacture, installation, technical consulting, retrofitting, upgrade, repair, maintenance, and repurposing of products, equipment, systems, and software related to the rail constituents	Manufacture of products – such as braking systems, highly integrated train control systems, or HVAC systems for rail vehicles, along with related spare parts and services – that are essential to environmental performance, operation, and functioning over the lifetime of rail rolling stock
CCM 6.5 Transport by motorbikes, passenger cars, and light commercial vehicles	Purchase, financing, rental, leasing, and operation of vehicles designated as category M1, N1, or L (2- and 3-wheel vehicles and quadricycles)	Fleet
CCM 6.14 Infrastructure for rail transport	Manufacture, installation, technical consulting, retrofitting, upgrade, repair, maintenance, and repurposing of products, equipment, systems, and software related to the rail constituents	Manufacture, maintenance, and servicing of signaling systems or platform screen doors, along with spare parts, for rail infrastructure
CCM 7.3 Installation, maintenance, and repair of energy efficiency equipment	Individual renovation measures consisting in installation, maintenance, or repair of energy efficiency equipment	Heating, ventilation, and air conditioning systems, LED lighting, facade insulation
CCM 7.4 Installation, maintenance, and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Installation, maintenance, and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Charging stations for electrified vehicles
CCM 7.5 Installation, maintenance, and repair of instruments and devices for measuring, regulation, and controlling energy performance of buildings	Installation, maintenance, and repair of instruments and devices for measuring, regulation, and controlling energy performance of buildings	Lighting control and energy management systems, building automation systems
CCM 7.6 Installation, maintenance, and repair of renewable energy technologies	Installation, maintenance, and repair of renewable energy technologies, on-site	Solar energy systems, heat pumps
CCM 7.7 Acquisition and ownership of buildings	Buying real estate and exercising ownership of that real estate	Leasing buildings
CE 4.1 Provision of IT/OT data-driven solutions	Software and information technology (IT) or operational technology (OT) systems, including artificial intelligence (AI) based solutions, such as for automated machine learning, built for the purpose of remote monitoring and predictive maintenance	Manufacture of predictive maintenance systems and solutions for rail and commercial vehicles, such as automatic failure detection

In addition to capital and operating expenditure related to the manufacture of rail vehicle, automotive, and mobility components and rail infrastructure, as well as the provision of data-driven IT/OT solutions, we also identified ongoing development projects that can be allocated to these economic activities. These are classified as taxonomy-eligible if they are associated with the economic activities CCM 3.18, CCM 3.19, CCM 6.14, or CE 4.1 or serve to maintain them. Below is a summary of the shares of revenue, capital expenditure, and operating expenditure that are taxonomy-eligible, along with the corresponding taxonomy-aligned metrics for the 2024 fiscal year. **Table → 2.11**

The data for the 2023 fiscal year was adjusted due to methodological adjustments and changes in the interpretation of activity CCM 3.18 attributable to the Draft Commission Notice of November 29, 2024. In light of the interpretation provided in the notice, the automotive components covered by activity CCM 3.18 are considered taxonomy-eligible if they are essential to the environmental performance of the vehicles and are used in zero-emission vehicles. Previously, their use in zero-emission vehicles was only considered under the criterion for a substantial contribution to climate change mitigation.

2.11 OVERVIEW OF TAXONOMY INDICATORS

	Taxonomy eligibility		Taxonomy alignment	
in %	2024	2023*	2024	2023*
Revenues	50.0	46.7	31.2	30.9
CapEx	53.3	39.8	17.5	18.8
OpEx	12.6	14.2	6.3	6.8

* Prior-year data adjusted

Analysis of taxonomy alignment

Knorr-Bremse has analyzed the taxonomy-eligible economic activities using the relevant technical screening criteria (substantial contribution, Do No Significant Harm/DNSH) and critically reviewed implementation and compliance on a location-specific basis and with the respective departments. In addition, the criteria for the minimum safeguards that also need to be met for taxonomy alignment were reviewed.

The technical screening criteria for economic activity CCM 6.5 “transport by motorbikes, passenger cars, and light commercial vehicles” are not currently met. Consequently, it cannot be reported as taxonomy-aligned for the 2024 fiscal year.

SUBSTANTIAL CONTRIBUTION TO THE ENVIRONMENTAL OBJECTIVE OF CLIMATE CHANGE MITIGATION

Below are the interpretations of the criteria for a substantial contribution to climate change mitigation for those activities that can be designated as taxonomy-aligned:

Economic activity 3.18 manufacture of automotive and mobility components

The criteria for a substantial contribution to climate change mitigation for this activity include, among other things, that the manufacture, repair, maintenance, retrofit, repurposing, and upgrade of automotive and mobility systems and components for motor vehicles are designed not to cause direct tailpipe carbon emissions. Therefore, the substantial contribution criterion was only considered to be met by components used in electrified vehicles.

Economic activity 3.19 manufacture of rail rolling stock constituents

The alignment criterion for this activity requires that the manufacture, repair, maintenance, and retrofitting of subsystems listed under point 2.7 of Annex II to Directive (EU) 2016/797 and therefore considered essential for the environmental performance, operation, and proper functioning of rail vehicles, are intended for trains, passenger coaches, or freight wagons that have zero direct tailpipe carbon emissions. In the context of taxonomy alignment, only those activities falling under economic activity 3.19 that are connected to electric rail rolling stock types were taken into account.

Economic activity 6.14 infrastructure for rail transport

Due to the different roles in connection with infrastructure for rail transport, which include the construction, modernization, operation, and maintenance as well as manufacture, upgrade, repair, and maintenance of systems, among other things, various criteria are defined for a substantial contribution. Here we included the manufacture, fitting, repair, and maintenance of components associated with new electrified or existing trackside infrastructure and ancillary subsystems such as energy storage systems, trackside train control, traffic control, or telematics applications.

Economic activity 7.3 installation, maintenance, and repair of energy efficiency equipment

The criteria for a substantial contribution differ depending on the individual measures to be taken into account. In the case of capital expenditure on energy efficiency equipment, a review was made of whether this meets the minimum national requirements set and whether, if applicable, it falls into the two highest classes of energy efficiency.

Economic activities 7.4–7.6

For the remaining taxonomy-eligible economic activities, the requirements for a substantial contribution are deemed to be met if the technology in question falls under the respective economic activity section. No further screening criteria are defined for economic activities 7.4-7.6.

Economic activity 7.7 acquisition and ownership of buildings

Under economic activity 7.7, we analyzed self-constructed buildings and leased buildings that do not qualify as production buildings based on their primary use of space, taking into account the available energy performance certificates and the date of construction. For buildings constructed before December 31, 2020, publicly available studies were used to determine whether they are among the top 15% of the national building stock of non-residential buildings. Buildings constructed after that date were examined to establish whether their performance falls short of the requirements defined for nearly zero-energy buildings by more than 10%. Another requirement is that buildings with a floor space of more than 5,000 m^2 constructed after December 31, 2020, must be tested for air tightness and thermal integrity and that their life cycle greenhouse gas potential must be calculated. For all buildings falling under CCM 7.7 that meet these criteria, an additional assessment was carried out to determine whether their efficient operation is ensured by systems for monitoring and evaluating energy efficiency.

SUBSTANTIAL CONTRIBUTION TO THE ENVIRONMENTAL OBJECTIVE OF A CIRCULAR ECONOMY

Below are the interpretations of the criteria for a substantial contribution to a circular economy for the activity that can be designated as taxonomy-aligned:

Economic activity 4.1 provision of IT/OT data-driven solutions

Due to the varied roles associated with the provision of IT/OT data-driven solutions, including development, implementation, optimization, and maintenance of systems, among other things, various criteria are defined for a substantial contribution. Here we included remote monitoring and predictive maintenance systems that provide information on abnormal sensor values and the condition of the product, as well as predictions of imminent failures of rail and commercial vehicle systems along with recommendations for measures to prevent such failures. The solutions are also designed with reuse, durability, recyclability, and easy disassembly in mind.

DO NO SIGNIFICANT HARM/DNSH

Climate change adaptation

Climate change involves acute and chronic physical climate risks. To ensure that Knorr-Bremse does not compromise the environmental objective of “climate change adaptation,” a climate-risk and vulnerability analysis needs to be conducted so that relevant climate risks can be countered in good time. The analysis was carried out in accordance with the ESRS and, in addition to the production and administrative locations, also covers the most significant direct suppliers (see the General disclosures and Climate change mitigation [E1] chapters).

After taking into account location-specific vulnerabilities and the countermeasures and remedial actions already implemented, no significant physical climate risks were identified for Knorr-Bremse’s production and administrative locations. To ensure that we remain as accurate as possible in measuring our exposure to climate risk in the future, we continuously monitor and evaluate these countermeasures and remedial actions. The requirements under Appendix A have been met through the performance of a climate risk and vulnerability analysis.

Sustainable use and protection of water and marine resources

The production locations of companies connected to the taxonomy-eligible economic activities CCM 3.18, CCM 3.19, CCM 6.14, and CE 4.1 are evaluated according to the DNSH criteria for sustainable use and protection of water and marine resources. This evaluation is based on whether an Environmental Impact Assessment has been carried out and effective remedial action has been taken. Where an Environmental Impact Assessment is not required under the applicable law, we additionally examined whether any projects or activities fall within the scope of the Water Framework Directive (2000/60/EC). When this was the case, we then validated whether the locations in question meet the requirements set by the competent authorities to ensure a good water status and good ecological potential. This method was also applied for facilities in third countries if the applicable national regulations pursue objectives equivalent to the Water Framework Directive. If this is not the case, the impacts of these locations on water resources were assessed using environmental aspect analyses, which are performed as part of ISO 14001 certification. For production locations that are in third countries, that are not certified according to ISO 14001, and for which there are no comparable national regulations, the DNSH criterion was deemed not to be met.

In addition, we evaluated the requirements for achieving a good environmental status of marine waters that were added under the amended climate taxonomy – and found no significant negative impacts.

Transition to a circular economy

The fulfillment of the DNSH criterion in relation to the product-based circular economy concerns economic activities CCM 3.18 and CCM 3.19 as well as activity CCM 6.14. Among other things, the focus here is on evaluating component reuse, the use of secondary raw materials, high durability, recyclability, and easy disassembly. As part of sustainable product design, we ensure during the development and design stages that our products can be remanufactured and overhauled and assess, among other things, the recyclability of the materials used (see the Resource use and circular economy [E5] chapter).

Pollution prevention and control

This DNSH criterion demands that substances listed in a variety of EU chemicals regulations and directives not be manufactured, placed on the market, or used. In accordance with these specifications, Knorr-Bremse analyzes and collects information on the used substances in internal databases that are based on the UNIFE Railway Industry Substance List and the Global Automotive Declarable Substance List. Information on substances of very high concern (SVHCs) is documented internally and made available to the public. For externally sourced parts, this information comes from the suppliers. These suppliers are subject to a Europe-wide disclosure obligation. In the case of in-house developments, the Knorr-Bremse developers specify which materials are used. Another element of this DNSH criterion is that, from the 2024 reporting period onward, certain substances of concern (SOCs) with a concentration of more than 0.1% by mass must be examined in more detail in addition to SVHCs. For this purpose, we evaluated the carcinogenic, germ cell mutagenic, and reprotoxic substances listed in the table of harmonized entries in Annex VI of the CLP Regulation. Both for SVHCs and for SOCs, this screening criterion was only considered to be met if they are used under controlled conditions and no alternative substances or technologies are available on the market. The same also only applies when the components, if applicable, do not contain any lead, hexavalent chromium, or cadmium. As part of this, there was consideration of the permissible maximum concentration values set forth in various EU regulations (such as Regulation (EU) 2023/544) for the purpose of adapting to scientific and technical progress. According to legal requirements, mercury must not be manufactured, placed on the market, or used.

Protection and restoration of biodiversity and ecosystems

The DNSH criteria for the protection and restoration of biodiversity and ecosystems must be fulfilled for economic activities CCM 3.18, CCM 3.19, and CCM 6.14. As with Annex B, the production locations were evaluated based on whether an Environmental Impact Assessment has been conducted and effective remedial action has been taken. Where an Environmental Impact Assessment is not required under the applicable law, we also examined whether any projects or activities at the production locations fall within the scope of the Habitats Directive (92/43/EEC), which requires an appropriate impact assessment whenever significant impacts on biodiversity-sensitive areas cannot be ruled out. Where this was the case, we then evaluated whether the requirements set by the competent authorities were being met in order to demonstrate that the conservation objectives of natural habitats and wild flora and fauna can be guaranteed. This method was also applied for facilities in third countries if the applicable national regulations had aims comparable to the Habitat Directive. If this did not apply, the impacts of these locations were also assessed using environmental aspect analyses, which are performed as part of ISO 14001 certification. For locations in third countries that do not have ISO 14001 certification and are not subject to regulations comparable to the Habitat Directive, the DNSH criterion was deemed not to be met.

MINIMUM SAFEGUARDS

The minimum safeguards require businesses to implement processes that safeguard compliance with the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, the eight fundamental ILO conventions and the Universal Declaration of Human Rights. The core topics addressed by the minimum safeguards are: human rights, bribery and corruption, fair competition, and taxation.

Human rights, including employee rights

Policy statements and guidelines provide specifications for human rights in Knorr-Bremse's commercial context. These documents draw on the UN Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights, and the ILO conventions. On top of that, Knorr-Bremse reports annually on its implementation of the ten global principles of the United Nations Global Compact.

In view of the implementation of Germany's Supply Chain Due Diligence Act, Knorr-Bremse performed during the reporting period an analysis of the human rights risks in its supply chain and own business units in accordance with legal requirements. This analysis complements the established risk management processes and structures used to identify and assess potential and actual negative impacts. The results of the human rights risk analysis were included as a criterion in the selection of internal auditors to conduct audits. In addition, the existing risk minimization and prevention measures include, among other things, raising awareness of human rights due diligence within the company and along the supply chain, taking sustainability aspects into account in purchasing decisions, and visiting and auditing suppliers. Moreover, the Executive Board carries responsibility for remedial measures in the event of human rights violations. The complaints mechanism at Knorr-Bremse consists of, firstly, the IntegrityLine whistleblower system, through which employees and external stakeholders can make anonymous or personalized reports of suspected human rights violations. In the 2024 fiscal year, no cases of child labor, forced labor or modern slavery were reported through this system.

Continuous monitoring of the measures is part of the due diligence process at Knorr-Bremse. Such monitoring includes audits and employee surveys, as well as reports on them (see the Own workforce [S1] chapter).

Bribery and corruption

Combating corruption and bribery is an important part of Knorr-Bremse's corporate responsibility and one of the key topics in the area of compliance management. Groupwide guidelines, such as the Group's Code of Conduct, lay out conduct requirements to prevent conflicts of interest and corruption. The Code of Conduct is based on the principles of the UN Global Compact and defines the principles for Group-wide, responsible commercial conduct across the entire value chain, including a prohibition of corruption in any form. These principles of action and rules are binding for all the Group's employees and are a component of the written employment contracts for new employees around the world. These principles are also given concrete expression through six Group-wide compliance guidelines.

A compliance management system has been implemented and regional as well as general responsibilities have been defined in order to detect potential risks at their beginnings. Employees are required to learn knowledge and the conduct for this topic through training sessions. A cross-functional Compliance Committee confers about topical compliance issues at Knorr-Bremse's locations, among other things. Full-time compliance officers are appointed at particularly risky or commercially significant locations to minimize any risk of bribery or corruption. The complaints mechanism functions analogously to that for human rights issues. The continuous monitoring of the measures entails external audits, an internal control system for checks against the compliance guidelines, and an internal Group audit department alongside the monitoring duties exercised by the Executive Board. Knorr-Bremse provides public and transparent reporting on its anti-corruption and compliance activities in its Group Sustainability Statement.

Knorr-Bremse, including its companies' Management Boards and its Executive Board, was not convicted of bribery during the reporting period, which is an important criterion for upholding the minimum safeguards on corruption and bribery (see the Business conduct [G1] chapter).

Fair competition

The principle of fair competition is part of Knorr-Bremse's due diligence for compliance. Accordingly, the due diligence processes listed above for bribery and corruption apply to fair competition, too.

Knorr-Bremse was not subject to any fines for violations of antitrust law for the 2024 reporting period.

Further details about material official proceedings can be found in the Report on Risks and Opportunities and in chapter H.9. Legal Disputes and Litigation in the Notes to the Consolidated Financial Statements.

Taxation

To analyze the minimum safeguards in connection with taxes in its own operations, Knorr-Bremse checks that its business processes comply with the relevant tax regulations. To ensure responsible conduct in relation to taxes, Knorr-Bremse has made a commitment through its applicable Group Tax Policy to comply with the tax laws and regulations of the countries where Knorr-Bremse operates. The Group's responsible approach to compliance within the legal environment is defined in its Code of Conduct. Knorr-Bremse takes measures as required for the identification and analysis of potential and actual negative impacts in order to minimize tax risks. They include, among other things, the following risk management strategies and processes: ICS tax controls or incorporation of tax risks as part of risk reporting. Based on its Group Tax Policy, Knorr-Bremse has committed to avoiding aggressive tax planning and to exchanging information with tax authorities transparently. There is no known case of Knorr-Bremse being found guilty of tax violations in the 2024 reporting period.

Calculation of KPIs in connection with taxonomy-eligible and taxonomy-aligned economic activities

Pursuant to section 315e (1) HGB, Knorr-Bremse's consolidated financial statements as at December 31, 2024, have been prepared in accordance with IFRS as applicable in the EU. The amounts used for calculating the revenue, CapEx, and OpEx metrics are thus based on the figures reported in the consolidated financial statements.

In principle, all fully consolidated Group companies are included in this analysis with respect to their revenue, capital expenditure, and operating expenditure. The values presented are therefore exclusively fully consolidated values. This ensures that data is only incorporated after consolidation of costs and intercompany eliminations. Simultaneously, this data was allocated to precisely one economic activity and environmental objective within the metrics, resulting in it being offset in the numerator. This is intended to stop the data from being counted twice when calculating the metrics across multiple economic activities and within the metric. Table → 2.54

REVENUES

The revenue of € 7,883 million reported in the consolidated statement of income is evaluated across all Group companies to determine whether it was attained with taxonomy-aligned economic activities pursuant to Commission Delegated Regulation 2021/2139 ("climate taxonomy") and Commission Delegated Regulation 2023/2485 amending the climate taxonomy. Revenue is allocated to the taxonomy-aligned economic activities through a detailed analysis of the items included in the revenue. The sum of the revenue generated from customer contracts associated with taxonomy-aligned economic activities for the 2024 fiscal year amounts to € 2,467 million and, as in the previous year, forms the numerator of the revenue KPI (2023: € 2,446 million). The total revenue forms the denominator and can be viewed in the Business Report (see the Financial performance section in the Business performance chapter).

CAPITAL EXPENDITURE (CAPEX)

The basis of the capital expenditure is the additions to property, plant, and equipment and intangible assets during the fiscal year under review before depreciation, amortization, and any remeasurements for the fiscal year in question and without changes to fair value (application of IAS 16, 38, 40 and IFRS 16). The total capital expenditure according to the EU Taxonomy Regulation amounts to € 631 million and includes various additions to property, plant, and equipment and intangible assets, which form the denominator. This figure comes from the statements of changes in fixed assets in the Notes to the 2024 Consolidated Financial Statements (chapter F.1. Table → 3.34 and F.3. Table → 3.37).

The sum of the additions corresponding to taxonomy-aligned capital expenditure forms the numerator of the taxonomy-aligned CapEx KPI. The taxonomy-aligned proportions that were calculated were those that are connected to a taxonomy-aligned economic activity or relate to individual measures. To determine the capital expenditure associated with economic activities CCM 3.18, CCM 3.19, CCM 6.14, or CE 4.1, allocation keys were used that are derived on the basis of the taxonomy-aligned revenue shares at business area level. These allocation keys ensure that only the assets and production processes are taken into account that are connected to taxonomy-aligned economic activities. Table → 2.12

2.12 QUANTITATIVE BREAKDOWN OF CAPEX NUMERATOR

in € million			CCM			CE
	3.18	3.19	6.14	7.3–7.6	7.7	4.1
						2024 fiscal year
Property, plant, and equipment	3	45	1	4	–	1
Intangible assets	–	20	0	–	–	5
Right-of-use assets	0	5	–	–	26	–
Total	**3**	**70**	**1**	**4**	**26**	**6**
thereof business combinations	–	–	–	0	–	6
thereof CapEx plan	–	–	–	–	–	–
						2023 fiscal year*
Property, plant, and equipment	1	42	1	5	–	–
Intangible assets	0	17	0	–	–	–
Right-of-use assets	0	15	–	–	9	–
Total	**1**	**74**	**1**	**5**	**9**	**–**
thereof business combinations	–	–	–	–	–	–
thereof CapEx plan	–	–	–	–	–	–

* Prior-year data adjusted

KB Signaling, acquired in the 2024 fiscal year, had a material influence on the CapEx metric. This business combination results in a significant increase in the taxonomy-eligible CapEx as well as the total KPI denominator. On the other hand, taxonomy-aligned CapEx can only be recognized for activities CE 4.1 and CCM 7.3. For other activities associated with the KB Signaling business combination, the technical screening criteria were either not able to be fulfilled or, despite intensive efforts, not able to be evaluated conclusively.

OPERATING EXPENDITURE (OPEX)

The OpEx metric represents the proportion of operating expenditure within the meaning of the EU Taxonomy that is connected to taxonomy-aligned economic activities. The denominator of this metric comprises the direct, uncapitalized costs of research and development (R&D), maintenance expenditure (including building renovation measures) and short-term leases. The numerator is calculated from the analysis of the aforementioned expenditure items, which may be assigned to a taxonomy-aligned economic activity. Table → 2.13

2.13 QUANTITATIVE BREAKDOWN OF OPEX NUMERATOR*

in € million	2024	2023**
R&D costs	8	10
Maintenance expenses	25	23
Short-term leases	3	4
Total	**36**	**37**

* This does not include expenditure for the daily operation of property, plant, and equipment such as the costs of the raw materials or the employees needed to operate the property, plant, and equipment. Depreciation is also not included in the OpEx KPI.
** Prior-year data adjusted

Knorr-Bremse uses the reporting templates in accordance with Commission Delegated Regulation 2023/2486 to present its revenue KPIs **Table → 2.14**, CapEx KPIs **Table → 2.15**, and OpEx KPIs **Table → 2.16**.

Further taxonomy-related information

In August 2024, Knorr-Bremse published a Green Finance Framework based on the requirements of the EU Taxonomy. This framework enables Knorr-Bremse to use green finance instruments such as the € 500 million green bond issued in the 2024 fiscal year.

2.14 REVENUE TEMPLATE 2024

Economic Activities	Codes	Revenues	Proportion of Revenues	Substantial contribution criteria: Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity
		in € 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)									
Manufacture of automotive and mobility components	CCM 3.18	18	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	2,368	30.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	72	0.9%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	9	0.1%	N/EL	N/EL	N/EL	N/EL	Y	N/EL
Revenue from environmentally sustainable activities (Taxonomy-aligned) (A.1)		**2,467**	**31.2%**	**31.1%**	**-**	**-**	**-**	**0.1%**	**-**
Of which enabling		2,467	31.2%	31.1%	-	-	-	0.1%	-
Of which transitional		-	-	-					
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 automotive and mobility components	CCM 3.18	20	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	1,384	17.6%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	73	0.9%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	5	0.1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL
Revenue from Taxonomy-eligible, but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**1,482**	**18.8%**	**18.7%**	**-**	**-**	**-**	**0.1%**	**-**
A. Revenue from Taxonomy-eligible activities (A.1+A.2)		**3,949**	**50.0%**	**49.8%**	**-**	**-**	**-**	**0.2%**	**-**
B. Taxonomy-non-eligible activities									
Revenue from Taxonomy-non-eligible activities		**3,934**	**50.0%**						
Total		**7,883**	**100.0%**						

CCM Environmental objective of climate change mitigation
CE Environmental objective of circular economy
Y Yes, activity Taxonomy-eligible and Taxonomy-aligned with the relevant environmental objective
N No, activity Taxonomy-eligible, but not Taxonomy-aligned with the relevant environmental objective
EL Activity Taxonomy-eligible for the relevant environmental objective
N/EL Activity not Taxonomy-eligible for the relevant environmental objective

DNSH criteria ("Does Not Significantly Harm")									
Climate Change Mitigation	**Climate Change Adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum Safeguards**	**Proportion of Revenues, 2023**	**Enabling Activities**	**Transitional Activities**
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Y	Y	Y	Y	Y	Y	Y	0.1%	E	
Y	Y	Y	Y	Y	Y	Y	29.6%	E	
Y	Y	Y	Y	Y	Y	Y	1.2%	E	
Y	Y	Y	Y	Y	Y	Y	-	E	
Y	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**30.9%**		
Y	Y	Y	Y	Y	Y	Y	**30.9%**	E	
							-		T
							0.7%*		
							14.9%		
							0.2%		
							-		
							15.8%		
							46.7%		

Adjustment of the prior-year figure (18.1%) to 0.7% due to methodological adjustments and changes in the interpretation of activity CCM 3.18 attributable to the Draft Commission Notice of November 29, 2024. In light of the interpretation provided in the notice, the automotive components covered by activity CCM 3.18 are considered taxonomy-eligible if they are essential to the environmental performance of the vehicles and are used in zero-emission vehicles. Previously, their use in zero-emission vehicles was only considered under the criterion for a substantial contribution to climate change mitigation.

2.15 CAPEX TEMPLATE 2024

				Substantial contribution criteria					
Economic Activities	**Codes**	**CapEx**	**Proportion of CapEx**	**Climate Change Mitigation**	**Climate Change Adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**
		in € 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)									
Manufacture of automotive and mobility components	CCM 3.18	3	0.5%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	70	11.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	1	0.1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Installation of energy-efficient equipment	CCM 7.3	2	0.3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Installation of charging stations for electric vehicles	CCM 7.4	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Installation of instruments and devices for measuring, regulation and controlling energy performance of buildings	CCM 7.5	0	0.0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Installation of renewable energy technologies	CCM 7.6	2	0.3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Acquisition and ownership of buildings	CCM 7.7	26	4.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	6	1.0%	N/EL	N/EL	N/EL	N/EL	Y	N/EL
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**110**	**17.5%**	**16.5%**	**-**	**-**	**-**	**1.0%**	**-**
Of which enabling		104	13.4%	12.4%	-	-	-	1.0%	-
Of which transitional		-	-	-					
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 automotive and mobility components	CCM 3.18	2	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	63	10.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Transport by motorbikes, passenger cars, and light commercial vehicles	CCM 6.5	12	2.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	89	14.0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Installation of energy-efficient equipment	CCM 7.3	1	0.1%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Acquisition and ownership of buildings	CCM 7.7	52	8.3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	7	1.1%	N/EL	N/EL	N/EL	N/EL	EL	N/EL
CapEx of Taxonomy-eligible, but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**226**	**35.8%**	**34.7%**	**-**	**-**	**-**	**1.1%**	**-**
A. CapEx of Taxonomy-eligible activities (A.1+A.2)		**336**	**53.3%**	**51.2%**	**-**	**-**	**-**	**2.1%**	**-**
B. Taxonomy-non-eligible activities									
CapEx of Taxonomy-non-eligible activities		**295**	**46.7%**						
Total		**631**	**100.0%**						

CCM Environmental objective of climate change mitigation
CE Environmental objective of circular economy
Y Yes, activity Taxonomy-eligible and Taxonomy-aligned with the relevant environmental objective
N No, activity Taxonomy-eligible, but not Taxonomy-aligned with the relevant environmental objective
EL Activity Taxonomy-eligible for the relevant environmental objective
N/EL Activity not Taxonomy-eligible for the relevant environmental objective

DNSH criteria ("Does Not Significantly Harm")									
Climate Change Mitigation	Climate Change Adaptation	Water	Pollution	Circular Economy	Biodiversity	Minimum Safeguards	Proportion of CapEx, 2023	Enabling Activities	Transitional Activities
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Y	Y	Y	Y	Y	Y	Y	0.3%	E	
Y	Y	Y	Y	Y	Y	Y	15.4%	E	
Y	Y	Y	Y	Y	Y	Y	0.3%	E	
Y	Y	Y	Y	Y	Y	Y	0.4%	E	
Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Y	Y	Y	Y	Y	Y	Y	0.0%	E	
Y	Y	Y	Y	Y	Y	Y	0.6%	E	
Y	Y	Y	Y	Y	Y	Y	1.8%		
Y	Y	Y	Y	Y	Y	Y	-	E	
Y	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**18.8%**		
Y	Y	Y	Y	Y	Y	Y	**17.0%**	E	
							-		T
							0.8%*		
							9.4%		
							1.6%		
							0.3%		
							0.1%		
							8.8%		
							-		
							21.0%		
							39.8%		

* Adjustment of the prior-year figure (15.8%) to 0.8% due to methodological adjustments and changes in the interpretation of activity CCM 3.18 attributable to the Draft Commission Notice of November 29, 2024. In light of the interpretation provided in the notice, the automotive components covered by activity CCM 3.18 are considered taxonomy-eligible if they are essential to the environmental performance of the vehicles and are used in zero-emission vehicles. Previously, their use in zero-emission vehicles was only considered under the criterion for a substantial contribution to climate change mitigation.

2.16 OPEX TEMPLATE 2024

				Substantial contribution criteria					
Economic Activities	**Codes**	**OpEx**	**Proportion of OpEx**	**Climate Change Mitigation**	**Climate Change Adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**
		in € 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)									
Manufacture of automotive and mobility components	CCM 3.18	3	0.6%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	31	5.4%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	1	0.2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	1	0.1%	N/EL	N/EL	N/EL	N/EL	Y	N/EL
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**36**	**6.3%**	**6.2%**	**-**	**-**	**-**	**0.1%**	**-**
Of which enabling		36	6.3%	6.2%	-	-	-	0.1%	-
Of which transitional		-	-	-					
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 automotive and mobility components	CCM 3.18	1	0.2%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Manufacture of rail rolling stock constituents	CCM 3.19	20	3.6%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Infrastructure for rail transport	CCM 6.14	4	0.7%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Acquisition and ownership of buildings	CCM 7.7	10	1.8%	EL	N/EL	N/EL	N/EL	N/EL	N/EL
Provision of IT/OT data-driven solutions	CE 4.1	0	0.0%	N/EL	N/EL	N/EL	N/EL	EL	N/EL
OpEx of Taxonomy-eligible, but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**35**	**6.3%**	**6.3%**	**-**	**-**	**-**	**0.0%**	**-**
A. OpEx of Taxonomy-eligible activities (A.1+A.2)		**71**	**12.6%**	**12.5%**	**-**	**-**	**-**	**0.1%**	**-**
B. Taxonomy-non-eligible activities									
OpEx of Taxonomy-non-eligible activities		**493**	**87.4%**						
Total		**564**	**100.0%**						

CCM Environmental objective of climate change mitigation
CE Environmental objective of circular economy
Y Yes, activity Taxonomy-eligible and Taxonomy-aligned with the relevant environmental objective
N No, activity Taxonomy-eligible, but not Taxonomy-aligned with the relevant environmental objective
EL Activity Taxonomy-eligible for the relevant environmental objective
N/EL Activity not Taxonomy-eligible for the relevant environmental objective

DNSH criteria ("Does Not Significantly Harm")									
Climate Change Mitigation	**Climate Change Adaptation**	**Water**	**Pollution**	**Circular Economy**	**Biodiversity**	**Minimum Safeguards**	**Proportion of OpEx, 2023**	**Enabling Activities**	**Transitional Activities**
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
Y	Y	Y	Y	Y	Y	Y	0.2%	E	
Y	Y	Y	Y	Y	Y	Y	6.4%	E	
Y	Y	Y	Y	Y	Y	Y	0.2%	E	
Y	Y	Y	Y	Y	Y	Y	-		
Y	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**	**6.8%**		
Y	Y	Y	Y	Y	Y	Y	6.8%	E	
							-		T
							0.6%*		
							5.1%		
							0.1%		
							1.6%		
							-		
							7.4%		
							14.2%		

* Adjustment of the prior-year figure (4.6%) to 0.6% due to methodological adjustments and changes in the interpretation of activity CCM 3.18 attributable to the Draft Commission Notice of November 29, 2024. In light of the interpretation provided in the notice, the automotive components covered by activity CCM 3.18 are considered taxonomy-eligible if they are essential to the environmental performance of the vehicles and are used in zero-emission vehicles. Previously, their use in zero-emission vehicles was only considered under the criterion for a substantial contribution to climate change mitigation.

Climate change [E1]

Climate change represents a global challenge. As a global enterprise that manufactures goods, our business activities across the entire value chain have direct and indirect impacts on the environment and climate. Our Climate Strategy reflects our desire to contribute to global climate change mitigation and to achieve the goals of the Paris Agreement. At the same time, we seek to minimize the medium- and long-term risks that climate change poses to our company.

Material impacts, risks, and opportunities [SBM-3]

2.17 CLIMATE CHANGE: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Negative impact (short-, medium-, and long-term)	GHG emissions	Greenhouse gas (GHG) emissions in the upstream value chain (Scope 3), particularly those related to purchasing (Scope 3.1) and the corresponding transportation of materials and intermediate products (Scope 3.4)
		GHG emissions in our own operations (Scopes 1 and 2) through energy consumption at Knorr-Bremse locations/offices and through production processes at Knorr-Bremse locations
		GHG emissions along the downstream value chain (Scope 3), in particular from the use of sold products by end users (Scope 3.11)
Positive impact (short-, medium-, and long-term)		Reduction of GHG emissions - in the upstream value chain (Scope 3) by taking measures in the areas of material purchasing, supplier collaboration, circular economy, etc. - in our own operations by increasing energy efficiency and self-generation and procurement of renewable energies - in the downstream value chain in particular by providing innovative product and system solutions to avoid or reduce emissions in the final product
Risk (short-, medium-, and long-term)	Physical risks	Interruptions or delays in our own operations and in the upstream value chain due to acute or chronic climate risks, such as flooding, storms, wildfires, heat, and water stress
Risk (short-, medium-, and long-term)	Transition risks	Financial risks in our own operations and along the upstream value chain due to (increasing) regulation and pricing of GHG emissions and due to sanctions for non-compliance with regulations and obligations
		Lack of planning certainty can lead to untargeted or delayed investments in new technologies and a delayed start of transformation processes
Negative impact (short-, medium-, and long-term)	Energy consumption and mix	Significant energy consumption in the upstream value chain during the manufacturing of products and the necessary materials as well as in our own operations and in the downstream value chain during the use phase

Knorr-Bremse has underpinned its commitment to climate change mitigation by implementing actions to reduce emissions along the entire value chain. We aim to minimize the direct and indirect impacts of our business activities on the climate and the environment and, in particular, to contribute to carbon-efficient mobility through our product portfolio. In pursuing these goals and activities, we also aim to mitigate potential physical and transition risks for our company.

During the reporting period, we conducted an analysis to determine how resilient Knorr-Bremse's business model and strategy are to the relevant climate risks. In the process, we looked at strategies, processes, and actions that counteract the identified potential physical and transition risks. Expert talks were held with the relevant departments to evaluate the resilience of the strategy and business model. As far as resilience to physical climate risks is concerned, our own locations and the locations of our suppliers were analyzed in terms of their adaptation measures. The climate scenarios and time horizons we used are consistent with the short-, medium-, and long-term perspectives used to determine physical and transition risks and to set climate targets (see the General disclosures [ESRS 2] chapter). The climate change mitigation measures (see the Management approach and actions in relation to climate change [E1-3] chapter) were assessed as part of the resilience analysis to determine if they are able to counteract the potential climate risks.

To ensure that the potential physical climate risks identified at our locations are limited to an acceptable level, we implement appropriate adaptation measures at these locations. In addition, location-specific emergency plans set out in detail which actions must be taken in the event of a natural disaster in order to minimize the damage.

Residual financial risk is covered by insurance. To analyze resilience to climate risks along the supply chain, we have carried out a climate risk assessment for our most important direct suppliers. Suppliers that may be exposed to potential risks have been informed and questioned about possible adaptation measures. These efforts are specifically aimed at addressing any secondary or cascading effects that could impact our business activities.

Beyond this, we want to actively counteract potential transition risks. By consistently implementing our Climate Strategy, we aim to limit the risk of increased carbon pricing on greenhouse gas (GHG) emissions in our own operations and in the supply chain (see the Management approach and actions in relation to climate change [E1-3] chapter). To avert the potential risk of sanctions due to non-compliance with new regulations, we continuously analyze the requirements of these regulations and integrate the results into our business processes. The dynamic market development toward zero-emission mobility also entails potential transition risks, particularly as a result of uncertainties surrounding transformation processes and technologies. A lack of planning certainty can lead to untargeted or delayed investments in new technologies and a delayed start of transformation processes. That is why Knorr-Bremse addresses these challenges in both its strategy and innovation processes. In addition, we engage in stakeholder dialog, in particular with our customers, to help us identify market opportunities and risks at an early stage.

We actively support the transformation toward zero-emission technology by expanding our product portfolio. Knorr-Bremse already offers the necessary product groups and expertise to equip both fossil-fuel as well as electrified commercial vehicles and trains. We therefore believe that we are well prepared to adapt to the challenges of the identified trends in the examined scenarios. One example is the eCUBATOR innovation unit in the CVS division, which specializes in e-mobility solutions for electrically powered commercial vehicles. Its aim is to develop overarching system solutions that will contribute to a reduction of emissions. As far as the RVS division is concerned, the 1.5-degree scenario also points to rising demand for low-carbon transportation, leading to slightly stronger growth in the rail vehicle market than under a business-as-usual approach.

To ensure that Knorr-Bremse has access to capital at a moderate cost, both in the medium and long term, the company is also incorporating green financial instruments into its financing structure. In the reporting period, we thus issued our first green bond as part of our capital market financing.

Transition plan for climate change mitigation [E1-1]

Knorr-Bremse has committed to the long-term goal of net-zero emissions (Scopes 1-3) by 2050. We have set milestones along the way, with intermediate targets for our own production and for the upstream and downstream value chain that are to be reached by 2030. These intermediate targets were validated by the Science Based Targets initiative (SBTi). According to the SBTi, both our 2030 and 2050 targets are in accordance with the targets of the Paris Agreement (see the Climate change mitigation targets [E1-4] chapter). In addition, our 2030 and our 2050 targets take into account the same emission categories.

CLIMATE TARGETS FOR PRODUCTION-RELATED EMISSIONS (SCOPE 1 AND SCOPE 2)

We intend to reduce our direct Scope 1 and indirect Scope 2 emissions (market-based) by 75% by 2030 compared to the baseline year 2018. This target is aligned with the 1.5 degree target of the Paris Agreement and is planned to be achieved mainly through the following levers:

- Increase of CO_2e efficiency and energy efficiency (lever 1): energy efficiency measures and use of low-carbon fuels or zero-emission forms of energy in heating systems and in the fleet
- Self-generation of renewable energy (lever 2): investments in measures to increase the share of our own renewable energy produced at Knorr-Bremse locations
- Purchase of renewable energy (lever 3): increase in the share of renewable energy purchased through green power tariffs, power purchase agreements, and green electricity certificates

CLIMATE TARGETS FOR THE UPSTREAM AND DOWNSTREAM VALUE CHAIN (SCOPE 3)

Our target for the upstream and downstream value chain is to reduce GHG emissions by 25% by 2030 compared to the baseline year 2021. Our Scope 3 target is aligned with the Paris Agreement target of limiting global warming to well below 2 degrees Celsius. It relates to relevant GHG emissions in key areas of Knorr-Bremse's upstream and downstream value chain, including indirect emissions from purchased goods and services (category 3.1), transport and logistics (3.4), and emissions from the use of our sold products (3.11). The following levers have been identified to achieve these targets:

- Decarbonization of the supply chain (lever 4): procurement of production material with low GHG emissions, such as green steel or materials with a high proportion of recycled content, improvement of our suppliers' energy efficiency in production, and decarbonization of

transportation, e.g., through active transportation management
- Increase of product efficiency and decarbonization of the use phase (lever 5): increasing our products' energy efficiency and conversion or further adaptation of our portfolio to products with low energy consumption or zero emissions
- Decarbonization of the electricity mix in countries where our products are used (lever 6): this passive lever is not directly within our control, but we are examining the effects on our carbon footprint in detail

The indirect Scope 3 emissions in the upstream and downstream value chain can only be influenced indirectly by Knorr-Bremse. Aside from our own activities, the extent to which we can consistently reduce emissions depends in large part on external factors, including the decarbonization strategies and actions of our suppliers, the technological solutions available to produce materials with reduced CO_2e, and customer preferences regarding energy- and CO_2e-efficient product solutions such as e-mobility. That is why it takes a joint effort by Knorr-Bremse and its business partners along the value chain to achieve the set targets.

The previously identified levers and actions (see the Management approach and actions in relation to climate change [E1-3] chapter) are designed to help us reach our GHG emission targets. Moreover, we are continuously working on identifying new potential initiatives and developing those already identified in order to expand our transition plan for our 2030 intermediate target and to make it resilient to external developments (**Table → 2.18**). On top of that, the 2050 transition plan is intended to be developed further. Through our business model, which will benefit from the expected decarbonization of the transportation sector going forward, we believe we are well-equipped on the path toward net zero by 2050.

Details on the implementation of the transition plan, including specific actions and the progress made toward achieving the targets, can be found in the Management approach and actions in relation to climate change [E1-3] chapter.

LOCKED-IN GHG EMISSIONS

Based on an analysis of the potential levers for achieving our climate targets, we have not identified any significant locked-in emissions within our own operations that might jeopardize our target achievement. Locked-in emissions are CO_2e emissions that arise from (production) activities at particularly relevant locations and that are highly unlikely to be reduced by technological or economic means in the next few years. During the reporting period, we analyzed the 15 Knorr-Bremse locations with the highest Scope 1 emissions. The share of Scope 2 emissions that originated from the purchase of heat (local and district heating) was considered to be locked-in emissions. Scope 2 emissions from the purchase of electricity, on the other hand, do not count as locked-in emissions, since they can be mitigated by switching to green electricity.

It is our intention to keep the proportion of locked-in emissions low in the future as well, which is why we have introduced an internal, shadow carbon price. For energy-related investment decisions exceeding € 500,000, we require the effect on the achievement of our climate targets to be demonstrated along with possible, lower-carbon alternatives. The fact that the achievement of our Scope 1 and 2 targets has been incorporated into the LTI compensation of our senior management serves as an additional incentive for making business decisions that avoid locked-in emissions.

In terms of GHG emissions along the upstream and downstream value chain, we have identified emissions from the use phase of the products sold by our two divisions (Scope 3.11) to be locked-in GHG emissions as the entire expected service life in each final product is used in the analysis. The levers and actions to continuously reduce our GHG emissions are described in the Management approach and actions in relation to climate change [E1-3] chapter. Despite these persistent efforts, reaching our emission reduction targets entails significant challenges, especially for Scope 3. They arise from our dependence, as a supplier, on external factors such as market developments, for example, in relation to the electrification of the transportation sector.

INTEGRATION OF TRANSITION PLAN INTO BUSINESS STRATEGY

The transition plan for climate change mitigation is closely linked to Knorr-Bremse's general business strategy and was reviewed and approved by the ESG Board in the reporting period (see the Strategy, business model, and value chain [SBM-1], Management approach and actions in relation to climate change [E1-3], and Climate change mitigation targets [E1-4] chapters).

The Climate Strategy is integrated into our business processes – for example through local climate change mitigation actions, the further development of our product portfolio for zero-emission mobility, sustainable investment, and efficient production processes (see the Management approach and actions in relation to climate change [E1-3] chapter). Accordingly, these projects are taken into account in our annual financial planning. The levers and actions of our transition plan will be continuously reviewed and further developed. If necessary, this will also involve adapting our budget and strategy process to implement our transition plan.

Knorr-Bremse's business model, with its solutions and services for the rail and commercial vehicle industry, can contribute to decarbonizing the use phase of final products and thus the transportation sector. We therefore currently do not see any necessity of adjusting our business model to achieve our climate targets.

Our RVS division supplies products and systems for equipping various vehicle types such as local trains, freight cars, locomotives and high-speed trains. Since rail transport promotes low-emission mobility and logistics, the contribution to sustainability is immediate. In addition, the Knorr-Bremse systems are developed with a view to energy and emission efficiency. In general, digital solutions in particular are improving rail transport and the carbon footprint for rail operators. The digital driver assistance system (LEADER), which drafts driving recommendations in real time and thus contributes to maximum energy savings, is one contribution to emission reduction. A further example of such systems are green[air] air conditioning systems that combine environmentally friendly refrigerants with energy-efficient technologies for minimal effects on the environment. The innovative Digital Automatic Coupler (DAC) paves the way for automation and digitalization in the entire rail freight transport sector, thereby helping to reduce emissions both directly and indirectly. Alongside the solutions for new vehicles, RailServices, through its services and retrofit solutions, contributes to an extended useful life and thus a more positive environmental footprint.

In the CVS division we support vehicle manufacturers in the open-technology development of commercial vehicles with maximum efficiency and reduced emissions with our entire product portfolio. The planned products of our zero-emission road map include oil-free e-compressors which increase energy efficiency and sustainability while at the same time reducing the maintenance required. Our modular and weight-optimized SYNACT® disc brake family is designed to be highly energy efficient. The Active Caliper Release (ACR) reduces residual drag torque and can ensure fuel savings and a smaller carbon footprint. In the aftermarket sector (Knorr-Bremse TruckServices), we have established EconX®, a trademark for industrially remanufactured products whose lower raw material and energy consumption significantly reduces CO_2e emissions compared to the production of new parts. In view of the economic importance of this business area, EconX makes a significant contribution to reducing emissions (see the Management approach and actions on resource use and circular economy [E5-2] chapter).

CAPITAL EXPENDITURE TO IMPLEMENT THE TRANSITION PLAN

To achieve our 2030 climate targets by means of the six levers, we have so far identified more than 80 potential emission reduction initiatives and actions (Scopes 1 to 3). We can already estimate and quantify the capital expenditure and financial resources required for about one-fourth of these activities. Their implementation – based on current planning – will incur costs in the low double-digit million range. The remaining initiatives, which largely relate to the decarbonization of our value chain, will be evaluated in more detail in a next step. Since these initiatives also entail expenditure on research and development or in the substitution of materials, the availability and allocation of funds will also be required here. Capital expenditure in connection with the initiatives and actions on climate change mitigation are examined in accordance with the EU Taxonomy and reported accordingly, provided that the compliance criteria are met. As at December 31, 2024, our share of taxonomy-aligned capital expenditure (CapEx) stood at 17.5%. There is currently no separate CapEx plan for adapting the economic activities to the criteria set out in Commission Delegated Regulation (EU) 2021/2139 (see the EU Taxonomy chapter).

Knorr-Bremse is not excluded from the EU Paris-aligned Benchmarks.

Policies in relation to climate change [E1-2]

The topics of climate change mitigation, climate change adaptation, and energy efficiency as well as use of renewable energy are addressed in the policies described below. Further information on these policies can be found in the appendix to the Sustainability Statement Table → 2.53.

In our Code of Conduct, we commit to contributing to the reduction of CO_2e emissions and to actively supporting climate change mitigation and environmental protection along the value chain. In particular, we seek to promote the development and wider use of technologies that are climate- and environmentally friendly and to increase energy efficiency in the production of our products as well as during their use phase.

The Group-wide Health, Safety and Environment (HSE) Policy defines the principles of environmental and climate protection and energy management in the Knorr-Bremse Group. In this policy, we pledge to avoid or minimize any potential harm to people and the environment that may arise from our processes, products, or services. This includes the use of renewable energies, the procurement of which we are promoting. Climate change adaptation actions are taken into account in the HSE Policy in the context of overarching aspects such as emergency management and the establishment of an environmental management system. Furthermore, we also wish to reduce our GHG emissions by striving to continuously increase the energy efficiency of our products in the production and the use phases.

Our Supplier Code of Conduct obliges our suppliers to minimize the negative impacts of their business activities on the climate. We expect our suppliers to employ appropriate management systems to avoid environmental and safety risks as well as to continuously improve the standards they have in place. If risks or violations are identified, we help our suppliers to develop and implement effective actions to rectify the situation and prevent future incidents. In addition, suppliers are expected to promote the development and wider use of energy-efficient and environmentally friendly technologies and to reduce emissions to air. The general expectations of suppliers to minimize their negative impact on the global climate preclude measures such as the use of renewable energies.

We have also developed internal guidelines and specifications to anchor sustainability matters in our purchasing and investment decision-making. The Environment & energy relevant aspects at purchasing of products, energy services and equipment guideline sets out clear criteria, recommendations, and rules for the procurement of new operating resources, with a particular focus on energy-related and environmental aspects. This guideline applies globally to all employees who are responsible for purchasing relevant products. It includes recommendations for various areas such as lighting, air conditioning systems, equipment (e.g., computers, monitors, printers), and materials. Another specification concerns investment decisions exceeding € 500,000. For such decisions regarding climate-efficient measures, the internally established shadow carbon price should be taken into consideration as well. The aim is to highlight the effect of an investment on climate change mitigation and the achievement of Knorr-Bremse's climate targets as well as to promote alternatives that produce lower CO_2e emissions (see the Internal carbon pricing [E1-8] chapter).

Climate change mitigation targets [E1-4]

In our Climate Strategy, we have laid out quantitative GHG reduction targets – both for our own production and along the value chain (see the Transition plan for climate change mitigation [E1-1] chapter). We were guided by the methodology of the SBTi and the framework conditions of the Paris Agreement to derive these targets. Moreover, findings from the scenario-based risk analysis and company-internal assumptions on future customer preference and sales volume developments were included. These targets were discussed and decided on with stakeholders from the relevant departments, including from HSE, Purchasing, EcoDesign, and Logistics, and at the Executive Board meeting. Our Scope 1 and 2 targets are consistent with the 1.5 degree climate scenario, and our Scope 3 target is aligned with the Paris Agreement target of limiting global warming to well below 2 degrees Celsius. Our climate targets have been validated by the SBTi.

The table below shows how we expect the identified decarbonization levers to contribute to achieving our GHG emission targets. Table → 2.18

2.18 HIGH-LEVEL TARGETS AND LEVERS (TRANSITION PLAN)*

Lever no.	Scope 1 and 2 (baseline year 2018)	% of baseline year 2024	% of baseline year Emission growth in 2030	% of baseline year 2030 target
	Total	**-78**	**-75**	**-75**
1	Increase of CO_2e efficiency and energy efficiency			-3
2	Self-generation of renewable energy			0
3	Purchase of renewable energy			-1
	Further levers/potential – to be defined			-

Lever no.	Scope 3 (baseline year 2021)	% of baseline year 2024	% of baseline year Emission growth in 2030	% of baseline year 2030 target
	Total	**-9**	**6**	**-25**
4	Decarbonization of the supply chain			-2
5	Increase of product efficiency and decarbonization of the use phase			-7
6	Decarbonization of the electricity mix in the countries of use			-8
	Further levers/potential – to be defined			-13

* Approximately one-fourth of the initiatives are at a more advanced stage of development and can therefore be assessed more reliably. They form the basis for the estimate presented here. We are continuously working on identifying new potential initiatives and evaluating those already identified.

The targets mentioned above are based on the GHG inventory (see the Greenhouse gas emissions [E1-6] chapter) and reflect the boundaries of that inventory. Future developments, such as changes in sales volume or customer preferences, have been taken into account as far as possible when setting our targets. In addition, all future activities, e.g., in the context of M&A transactions, are reflected in the targets with regard to their potential impact on GHG emissions. We do not count carbon credits toward the targets presented here. The baseline years were chosen in accordance with the recommendations of the SBTi and validated by it. As such, we believe that our baseline years are representative and therefore suitable as a starting point. Insights from our risk analysis helped us identify the decarbonization levers. These include future developments, risks, and opportunities arising from the 1.5 degree scenario, for example in the context of zero-emission mobility.

We actively monitor the progress we are making toward achieving our climate targets. To this end, we calculate, analyze, and publish how our Scopes 1 to 3 GHG emissions are developing each year. The HSE organization and the ESG Board conduct internal reviews. In addition, we have incorporated these targets into our management compensation system: Actions to increase energy efficiency or expand the self-generation of renewable energy are part of the short-term incentive (STI). The absolute reduction of Scope 1 and Scope 2 emissions is a factor in the long-term incentive (LTI) (see the Integration of sustainability-related performance in management incentive schemes [GOV-3] chapter).

Management approach and actions in relation to climate change [E1-3]

Our 2030 Climate Strategy is aimed at significantly reducing fossil energy consumption and CO_2e emissions along the value chain. Experts in the fields of sustainability, EcoDesign, purchasing, engineering, HSE, logistics, and supply chain management are all working on its implementation. Local environmental and energy management teams are responsible for continuously evaluating and improving the energy efficiency of our business processes. This enables us to monitor consumption data, identify potential savings, and evaluate the effectiveness of the actions we have implemented at our locations. We follow the European Energy Efficiency Directive in our implementation of energy management. Worldwide, 84 locations are currently certified according to ISO 14001 (employee coverage rate: 89%) and 45 locations are certified according to ISO 50001 or have carried out an energy audit in accordance with EN 16247 (employee coverage rate: 44%).

During the reporting period, we continuously implemented actions to achieve our Scopes 1 to 3 emission reduction targets. As a result, we were able to reduce our Scope 1 and Scope 2 emissions by approximately 78% and our Scope 3 emissions by approximately 9% compared to the respective baseline years. The future emission reductions we expect to achieve by means of the individual levers are presented in the Climate change mitigation targets [E1-4] chapter. For the future emission reduction we also expect the introduction of new technologies, for example industrial heat pumps or the procurement of low-emission materials. These and other examples are described in more detail within the following levers.

INCREASE OF CO_2E EFFICIENCY AND ENERGY EFFICIENCY (LEVER 1)

To increase CO_2e efficiency and energy efficiency, we identify savings potential based on internal and external analyses and use the results to develop energy-saving projects. Some of the actions implemented in 2024 at selected locations include, among other things, the replacement of diesel-powered fleet vehicles with electric models in Europe, the installation of new, energy-efficient compressors, the insulation of air ducts in Europe and North America, the optimization of HVAC systems in North America and Asia, and the modernization of lighting systems in Asia. We were also able to optimize and promote the use of low-carbon fuels at our locations. For instance, in North America, a heating system was converted from gas to electricity and, at a location in Europe, the usage of low-carbon fuels for heating equipment was approved.

Further actions aimed at increasing CO_2e and energy efficiency are planned through to 2030. Examples include replacing conventional lighting systems with LEDs in Australia, utilizing the waste heat generated in production processes, installing efficient HVAC systems, and implementing general energy efficiency measures to reduce the consumption of fossil fuels in our buildings, systems, and processes. In addition, we plan to introduce initiatives for the use of low-carbon fuels in heating systems and in our vehicle fleet.

SELF-GENERATION OF RENEWABLE ENERGY (LEVER 2)

At present, we operate photovoltaic (PV) systems at 18 locations which contribute to self-generated electricity from renewable sources. In the reporting period, the volume produced came to approximately 9.6 GWh, equivalent to approximately 3% of the overall volume of electricity consumed. Systems are being planned at 8 locations. Specifically, we produce our own renewable energy through PV systems at various locations worldwide, including Darra and Granville (Australia), Schwieberdingen (Germany), Melksham (UK), Palwal (India), Florence and Milan (Italy), Getafe (Spain), and Huntington (US). In 2024, we expanded our PV systems in Suzhou (China), Munich (Germany) and Acuña (Mexico) and began installing new systems in Mödling (Austria), Rzeszow (Poland), Kempton Park (South Africa), and Kecskemét (Hungary). Moreover, further PV projects have been approved in, for example, Getafe (Spain) and Huntington (US). We are continuing to expand our self-generation of renewable energy, with plans to install PV systems at further Australian locations by 2030, for example.

PURCHASE OF RENEWABLE ENERGY (LEVER 3)

In 2024, approximately 99% of the electricity supplied to Knorr-Bremse came from renewable energy sources via green electricity contracts or certificates. Our locations in Brazil, France, Sweden, Acuña in Mexico, and, for the first time, Namegawa and Sakado in Japan purchase their electricity through green electricity contracts. At other locations around the world, we purchase green electricity certificates that meet the quality criteria we have defined, e.g., regarding energy sources, the year and place of production, or the age of the power plants. In Europe, the green electricity certificates are European Guarantees of Origin, with the exception of specific local Guarantees of Origin in Poland and the UK. In Canada and the United States, we purchase Renewable Energy Certificates (RECs), while in China, India, Mexico, South Africa, Thailand, and Turkey we use International Renewable Energy Certificates (I-RECs).

We see further potential for expanding our procurement of renewable energy by 2030, particularly at locations in Australia and Japan.

DECARBONIZATION OF THE SUPPLY CHAIN (LEVER 4)

With respect to procurement-related emissions, we identified the raw materials and suppliers with the greatest potential for reduction in the reporting period. Furthermore, we started the rollout of a CO_2e accounting tool which we can use to collect both the primary CO_2e data of our suppliers and quantify their reduction measures. We also intensified the direct dialog with our suppliers in the reporting period and explored possible decarbonization strategies in supplier training events and conversations. We conducted a written survey to gain further insights into the status and planning of climate change mitigation actions of our suppliers. Joint initiatives with suppliers include the procurement of sustainably manufactured products, such as those made of emission-reduced steel or material with a higher recycled content. Other actions relate to increasing the use of renewable energies and improving energy efficiency at our suppliers.

To reduce transportation-related emissions (Scope 3.4) we extended the introduction of a new transportation management system to the Asia–Pacific and South America regions in the reporting period. A logistics service provider is responsible for actively controlling and optimizing the transportation. The goal is to reduce transportation-related CO_2e emissions in our logistics network. In addition, we have identified further emission reduction potential through a reduced number of ad-hoc deliveries, optimized decision-making about locations, or the use of alternative fuels such as HVO100 (synthetic diesel fuel).

INCREASE OF PRODUCT EFFICIENCY AND DECARBONIZATION OF THE USE PHASE (LEVER 5)

Knorr-Bremse is continuously developing products that have a positive effect on energy consumption or GHG emissions compared to conventional products. In 2024, the effects of some measures could already be realized. They include e-compressors for commercial vehicles, whose revenue share increased as planned during the reporting period. In 2024, we also implemented efficiency improvements in product groups in the RVS division, for example, heating, ventilation, and air conditioning (HVAC) through the use of heat pumps and optimized fan control, and air supply systems with a new valve system which enables a greater volume flow and therefore raises efficiency. Moreover, we refined our calculation methodology to enable us to plan the impacts of potential actions more precisely.

In the RVS division, the most important initiatives planned between now and 2030 relate to the HVAC, air supply, and power electric product groups. The aim is to increase efficiency through technical optimizations and to make products more energy-efficient and compact through downsizing. In the CVS division, we intend to continuously increase the share of e-compressors and more energy-efficient clutch compressors by 2030. High savings potential is expected in particular from the larger share of e-compressors, which produce significantly lower GHG emissions compared to conventional diesel-powered applications.

Other products from both divisions also make a positive contribution to reducing the total energy consumption and emissions from the finished vehicles, even if this cannot be represented in our Scope 3.11 GHG emissions accounting due to the prescribed calculation methodology. Examples of this include the SYNACT brake family for trucks, which reduces the vehicles’ weight significantly, as well as the LEADER driver assistance system, which lowers energy consumption in trains.

DECARBONIZATION OF THE ELECTRICITY MIX IN THE COUNTRIES OF USE (LEVER 6)

The decarbonization of the electricity mix in the countries where our products are used represents a passive lever for Knorr-Bremse. This is because we have no direct influence on how grid electricity is generated and supplied in the individual countries. Nevertheless, there is also potential here which contributes to the achievement of our climate targets by 2030. This assessment is based on the current emissions factors and scenarios of the IEA, whose development we evaluate using the APS (Announced Pledges Scenario).

For information on the allocation of funds (CapEx, OpEx) required to carry out the actions we have taken or planned, see the Transition plan for climate change mitigation [E1-1] chapter.

CLIMATE CHANGE ADAPTATION ACTIONS

Alongside the reduction of GHG emissions, Knorr-Bremse also sees the relevance of adapting to the consequences of climate change. Adaptation measures, where necessary, are planned and implemented at the local level since they require a location-specific analysis. These measures take into account the geographic and climate conditions of the relevant location with regard to the potential physical climate risks.

Location-related examples of adaptation measures to storm and flood risks include construction measures such as flood retention basins and organizational measures such as emergency plans which set out a systematic and structured approach to prepare for upcoming events.

To counter the risk of heat stress there are measures such as drinking water stations, ventilators, and air conditioning systems in offices and production facilities. Heat protection plans define processes such as an earlier start to the work day to minimize exposure to the highest temperatures at the middle of the day.

Energy consumption and mix [E1-5]

In 2024, Knorr-Bremse recorded total energy consumption of 479 GWh. This is equivalent to an approximately 1% increase compared with the previous year. The total consumption of fossil energies fell by 13% to 152 GWh. These developments are driven by the consistent implementation of our energy efficiency measures, the switch to renewable energies as the energy source we use, and the effects of M&A activities and divestments. Table → 2.19, Table → 2.20

2.19 ENERGY CONSUMPTION AND MIX*

	2024	2023
Total energy consumption (GWh)	**479**	**476**
Total energy consumption from activities in high climate impact sectors (GWh)	479	476
Total energy consumption from fossil sources (GWh)	**152**	**175**
Share of fossil sources in total energy consumption (%)	31.6	36.7
Fuel consumption from crude oil and petroleum products (GWh)	29	30
Fuel consumption from natural gas (GWh)	101	107
Fuel consumption from other fossil sources (GWh)	2	5
Consumption of purchased or acquired electricity, heat, steam, or cooling from fossil sources (GWh)	19	33
Total energy consumption from renewable sources (GWh)	**327**	**301**
Share of renewable sources in total energy consumption (%)	68.4	63.3
Fuel consumption from renewable sources (GWh)	1	0
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (GWh)	317	295
Consumption of self-generated non-fuel renewable energy (GWh)	10	6

* The data provided for the reporting period includes the proportional energy consumption by M&A activities since the time of acquisition. The prior-year figures were not retroactively adjusted. The values presented here are adapted to the CSRD methodological requirements.

2.20 ENERGY INTENSITY

	2024	2023
Energy intensity: total energy consumption from activities in high-climate-impact sectors per net revenue from activities in high-climate-impact sectors (MWh/€ million)	60.7	60.1
Net revenue from activities in high-climate-impact sectors* used to calculate energy intensity (€ million)	7,883	7,926

* Total net revenue, see the Business performance chapter, Financial performance section. Knorr-Bremse is assigned to NACE code C Manufacturing.

Knorr-Bremse's energy consumption and mix is consolidated based on the individual locations' data which is reported according to our internal Sustainability Data Reporting Guideline. The energy intensity for a given fiscal year is calculated as the total energy consumption divided by the corresponding revenues. The energy consumption of small locations with fewer than 50 employees is assumed by using representative average energy consumption figures.

GHG emissions [E1-6]

2.21 GROSS SCOPES 1, 2, AND 3 GHG EMISSIONS*

	2024	2023	Baseline year Scope 1, 2: 2018 Scope 3: 2021
Scope 1			
Gross emissions (thousands of tons of CO_2e)	31	33	38
Emissions from regulated emission trading schemes (%)	6.6		
Scope 2			
Location-based gross emissions (thousands of tons of CO_2e)	122	119	145
Market-based gross emissions (thousands of tons of CO_2e)	4	11	119
Scope 1 and Scope 2			
Total Scope 1 and location-based Scope 2 emissions (thousands of tons of CO_2e)	152	152	183
Total Scope 1 and market-based Scope 2 emissions (thousands of tons of CO_2e)	35	44	157
Scope 3 (significant)**			
3.1 Purchased goods and services (thousands of tons of CO_2e)	2,028	1,986	2,025
3.4 Upstream transportation and distribution (thousands of tons of CO_2e)***	310	308	329
3.11 Use of sold products (thousands of tons of CO_2e)***	37,452	39,128	41,236
Total indirect gross emissions (thousands of tons of CO_2e)	39,791	41,422	43,589
Total GHG emissions			
Total GHG emissions, location-based (thousands of tons of CO_2e)	39,943	41,574	43,773
Total GHG emissions, market-based (thousands of tons of CO_2e)	39,826	41,467	43,747

* The data provided for the reporting period includes the proportional emissions from M&A activities since the time of acquisition. The prior-year figures were not retroactively adjusted. The baseline figure fully accounts for M&A activity data. No carbon credits were included in the reported emissions.
** Based on a screening of all Scope 3 categories according to factors including the size of emissions and the extent to which they can be influenced, the three Scope 3 categories mentioned here are the priority categories for Knorr-Bremse.
*** Previous/baseline year values adjusted due to improvement of the data quality and calculation methodology

2.22 GHG INTENSITY

	2024	2023
Total GHG emissions (location-based) per net revenue* (thousands of tons of CO_2e/€ million)	5.1	5.2
Total GHG emissions (market-based) per net revenue* (thousands of tons of CO_2e/€ million)	5.1	5.2

* Total net revenue, see the Business performance chapter, Financial performance section.

Knorr-Bremse calculates its CO_2e emissions in accordance with the requirements of the Greenhouse Gas (GHG) Protocol. The boundaries for the calculation are based on the operational control of our business units. The CO_2e figures recorded include emissions of CO_2 and other greenhouse gases such as nitrous oxide and methane, as well as emissions from refrigerant leakage. To ensure that our emissions calculations are consistent and comparable, we use standardized emissions factors from sources that are recognized in our industry. When it comes to emissions in the upstream and downstream value chain (Scope 3), we report on the categories that are most relevant to us: Scopes 3.1, 3.4 and 3.11. These account for more than 95% of our total Scope 3 emissions and are part of the targets set out in our Climate Strategy. We explain our calculation approach in detail below:

Scope 1 emissions

Here we calculate direct emissions that arise within the company from the combustion of natural gas, liquefied petroleum gas, crude oil, and fossil fuels or during self-generation of electricity. That also includes the fuel consumption of the company's own vehicles. Emissions due to refrigerant leakage are also included in the accounting. We calculate the emissions based on the country-specific emission factors of the German Association of the Automotive Industry (*Verband der Automobilindustrie*, VDA) that were applicable in the reporting period. Biogenic CO_2e emissions from the combustion or biodegradation of biomass are calculated the same way. Their volume, which is not included in the Scope 1 GHG emissions, amounts to 472 t CO_2e.

Scope 2 emissions

Here we calculate emissions from purchased energy in the form of electricity, district heating, district steam, and district refrigeration and cooling. To calculate location-based CO_2e emissions, we use the current VDA and IEA (International Energy Agency) country-specific emission factors. For the market-based calculation approach, we use the specific CO_2e emission factors of the electricity providers or apply an emission factor of 0 kg CO_2e/kWh if renewable energies are used. If we do not have any data from the electricity providers, we take the average IEA emission factors for the country in question (see location-based approach). Since the IEA does not provide emission factors for biogenic CO_2e emissions, no biogenic Scope 2 emissions (location-based) are reported. Green electricity accounts for 99% of the total electricity purchased. Of this, 86% is through energy attribute certificates and 14% green electricity purchased directly from the supplier. More about the purchase of renewable energy can be found in the Management approach and actions in relation to climate change [E1-3] chapter.

Scope 3.1 emissions – purchased goods and services

Emissions are calculated on the basis of the cost of materials and services (spend-based approach). The emission factors used in this calculation are taken from an external data model that combines life cycle assessment and environmentally extended input–output (EEIO) methods with trade data and other external datasets. The calculated emissions cover the entire upstream supply chain – from the production of raw materials to Tier 1 suppliers ("cradle to gate").

Scope 3.4 emissions – upstream transportation and distribution

Here we calculate transport-related emissions from inbound transportation, company-internal transportation, and outbound transportation paid for by Knorr-Bremse. The calculation of the CVS division's carbon footprint is based mainly on primary emissions data provided by transportation service providers or other value chain partners. This data accounted for 0.2% of the total gross GHG emissions for Scope 3. In addition, we used distance-based and spend-based approaches to calculate the required data. For the RVS division, the carbon footprint is calculated purely on the basis of a distance-based approach that applies standard emission factors (well-to-wheel) from the GLEC framework of the Smart Freight Centre. Emission factors for the calculation of emissions according to the spend-based method for the CVS division come from the Quantis Scope 3 Evaluator. We calculate the emissions of external warehouses on the basis of their size in square meters, using the greenhouse gas values published by CRREM Global Pathways for industrial distribution warehouses per year and square meter. These figures were added to the transport-related emissions. For the fuel composition, we took into account the admixture of biofuels to fossil fuels. Since this composition may vary depending on local legislation, we applied uniform cross-regional emission factors from the GLEC framework.

Scope 3.11 emissions, use of sold products

Here we calculate the direct emissions that arise during our products' use phase through the direct consumption of energy and fuel in rail and commercial vehicles as well as in stationary installations. The calculation is based on the estimated energy consumption over the entire lifetime of the products that we delivered to our customers in the reporting period. These emissions are relevant for us because our products have a long service life and the emissions are calculated for the entire use phase. The locked-in emissions created during the use phase are thereby already taken into account when calculating the annual Scope 3.11 emissions.

In the RVS division, we have identified 20 relevant product groups for calculating emissions. A typical use phase profile across the product service life was defined for each product group and took into account different rail vehicle types such as diesel multiple units (DMUs), electric multiple units (EMUs), and locomotives. Most products have set maintenance intervals during their useful life, though this does not affect the estimated energy consumption during their use phase. To calculate the emissions, the energy consumption is multiplied by the current, region-specific emission factors of the IEA and BEIS/DEFRA. The calculation is based on assumptions regarding the share of powertrains in rail vehicles worldwide. This data comes from global market studies and is regularly updated. The calculation does not include indirect emissions from the use phase that arise from the transportation of our products, nor does it include emissions resulting from maintenance work, since these are not considered significant.

In the CVS division, one relevant product group was identified for calculating emissions. An estimation for further product groups with direct energy consumption indicated that their combined emissions account for about 2% of the CVS division's Scope 3.11 emissions, meaning they were not considered relevant. They were therefore added to the calculation as a lump sum. To calculate emissions in the CVS division, we used current, regional emission factors from the IEA and BEIS/DEFRA in the 2024 reporting period. Our Scope 3.11 emissions are to a large degree dependent on our sales figures and the respective customer preferences, so they may vary significantly from one reporting period to the next.

Biogenic CO_2e emissions from the combustion or biodegradation of biomass that arise in the upstream and downstream value chain are not yet being reported for the year under review. We do not have any information available on the specific use of biogenic fuels by our customers and service providers; so far, this has simply been covered by the emission factors used. We are planning to report biogenic emissions separately in the future, provided that the effort involved in doing so is not disproportionate.

Carbon credits for reducing greenhouse gas emissions [E1-7]

Our goal is to reach net-zero emissions by 2050. To achieve this, we want to lower our Scopes 1 to 3 GHG emissions by at least 90%. The GHG emissions remaining in 2050 are planned to be stored or removed from the atmosphere through climate change mitigation projects which we want to support by investing in carbon credits.

During the reporting period, we made our first investment in a project involving storage of CO_2e outside our own value chain to gain early experience with GHG removal and storage. To this end, we expanded our existing financial support for the climate change mitigation project Efficient Wood Gas Stoves in India by including the storage of CO_2e through biochar in 2024. The biochar produced as a by-product in this project can be combined with compost and limestone to produce fertilizer. When the fertilizer is applied, CO_2e is stored in the soil, thus creating a biogenic sink. In addition to Efficient Wood Gas Stoves, we also support the Clean Drinking Water project in Kenya, another climate change mitigation project run by atmosfair gGmbH that is certified according to the Gold Standard.

During the reporting period, carbon credits were not counted toward greenhouse gas emissions [Table → 2.21] or toward the achievement of our Scopes 1 to 3 targets (see the Climate change mitigation targets [E1-4] chapter). Table → 2.23

2.23 CANCELED CARBON CREDITS*

		in 2024 (for 2023)	in 2025 (for 2024)
Total (t CO_2e)		**40,000**	**3,150**
Share of removal projects (%)	Biochar		32
Share of mitigation projects (%)	Water + stoves	100	68
Recognized quality standard 1 – Carbon Standards International (%)	Biochar		32
Recognized quality standard 2 – CDM + Gold Standard (%)	Stoves	100	52
Recognized quality standard 3 – Gold Standard (%)	Water		16
Share of projects within the EU (%)			0
Share of carbon credits that qualify as corresponding adjustments (%)			0

* The CO_2e credits listed here are based on existing contractual agreements. Cancellations of carbon credits for the given reporting period are made retroactively in the first quarter of the following year.

Internal carbon pricing [E1-8]

An additional management tool to support CO_2e reduction and energy efficiency is the internal shadow carbon price, which we introduced in 2023. It is applied worldwide to investment decisions exceeding € 500,000 that could have an impact on our Scope 1 and Scope 2 emissions. The internal shadow carbon price serves as an additional decision-making basis to ensure that alternative, lower-carbon technologies are considered and promoted.

The internal shadow carbon price is reassessed every two years based on our estimate of the future cost of GHG emissions, in particular taking into account the forecasts on the EU ETS price trend. In addition, we take into account the experiences and insights of companies in our industry when setting the price.

The internal carbon price is used as a shadow price and is therefore not included in the financial statements. It serves as a reference point to support operational decisions. Table → 2.24

2.24 TYPE OF INTERNAL CARBON PRICE

Type of internal carbon price	Relevant volume (%)	Prices applied (€/t CO_2e)	Assumptions made to determine prices
Internal shadow carbon price	100% of Scope 1 and 2 GHG emissions	100	Based on benchmark

Pollution [E2]

The pollution of the environment, be it of land, water, or air, is a major challenge for a sustainable future. It threatens ecosystems and human health. We are conscious of our responsibility as a company and know how important it is to avoid pollution as a matter of principle. Therefore we take care to shape our production processes and products in such a way that their negative impacts on the environment are as small as possible. We aim to contribute to the minimization and avoidance of pollution through targeted action along the entire value chain.

Material impacts, risks, and opportunities [SBM-3]

2.25 POLLUTION: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Negative impact (short-term)	Pollution of air, water, soil	Pollution of air, water, and soil in the upstream value chain during product, material, and energy production (e.g., iron/steel and aluminum)
		Pollution of air, water and soil in the downstream value chain as part of the overall system of rail or truck, for example as part of braking activities (product use)
Positive impact (short-term)		Active improvement of the environmental footprint in the downstream value chain through innovative product and system solutions
Negative impact (short-term)	Substances of (very high) concern	Emissions of substances of (very high) concern through use in our own operations and in the downstream value chain through product use during the life cycle and through the disposal/reuse of products*

* Statements and metrics on substances of (very high) concern are not reported in the 2024 reporting period (see the Processes to identify and assess material, related impacts, risks, and opportunities [IRO 1] chapter).

As part of our environmental management we monitor and manage the environmental impacts of our own operations. Modern production technologies and targeted action contribute to the avoidance and mitigation of burdens on the environment at our locations.

Following a comparison with the E-PRTR (European Pollutant Release and Transfer Register) Regulation no emissions from our own operations were classified as material because we do not operate any processes with high emissions. Substances of concern within the meaning of the REACH Regulation are also only used to a small extent in our production and are therefore considered by us as not material within the meaning of the CSRD.

Pollution of air, water, and soil can, however, also occur in the upstream value chain in the manufacturing of the production material we purchase. Moreover, substances of concern and substances of very high concern are contained in materials that we purchase externally for the production of our products. Over the coming years we want to analyze the use of substances of concern and substances of very high concern in the upstream value chain in more detail and, if necessary, derive measures for their substitution.

In the downstream value chain, negative impacts can occur, particularly in the use of our products. Brake technologies are essential for a safe and reliable flow of traffic and for the safety of drivers, passengers, and freight. The predominant technologies in trucks, buses and trains today cause abrasion during the braking process due to the friction between the brake pad and brake disc, a normal mechanical occurrence. We are conscious of the fact that part of the material abraded gets into the environment, and this is associated with a risk of pollution. For this reason we are working on innovative system solutions for rail and commercial vehicle traffic that avoid negative impacts on the environment and on people in the best possible way.

Policies related to pollution [E2-1]

We commit ourselves and our suppliers to the avoidance and/or mitigation of pollution. We have set out this commitment in binding guidelines. Further information on the individual policies can be found in the appendix to the Sustainability Statement. Table → 2.53

The HSE Policy includes our commitment to protect the environment through the sustainable use of natural resources and the use of renewable resources and recycling methods. We aim to mitigate and control negative effects on the environment caused by us and are committed to the responsible handling of energy and chemicals, the protection of soil and water resources, and the avoidance of noise, air pollution, and waste. For our products and services we take responsibility across the entire product life cycle through the development of safe, environmentally friendly, and energy-efficient technologies and, where possible, by avoiding the use of substances of concern.

In our Supplier Code of Conduct we demand that our suppliers comply with all relevant laws and international environmental standards. Furthermore, we expect them to minimize negative effects on the environment in their operations and reduce emissions in the air, bodies of water, and soil. Furthermore, the handling of hazardous substances, freight, and waste and the relevant labeling and packaging of products must be fulfilled by all our suppliers in line with the law.

Management approach and actions in relation to pollution [E2-2]

Knorr-Bremse develops innovative solutions for rail and commercial vehicles that reduce the negative impacts on the environment. We create the prerequisites for this to happen with our EcoDesign approach: Already in product development we prioritize sustainability aspects and environmentally friendly product design alongside functional and safety requirements. The selection of materials plays an important role in the process (see the Management approach and measures for resource use and circular economy [E5-2] chapter). Our sustainable supplier management also seeks to avoid negative environmental impacts in the upstream value chain (see the Management of relationships with suppliers [G1-2] chapter).

In the downstream value chain there are no uniform, standardized measurement processes and limits for emissions from the brake pad abrasion, especially particulate matter, either in the rail or the commercial vehicle sectors. Nevertheless, to reduce potentially negative environmental impacts, we want to improve existing products systematically and develop innovative solutions.

Knorr-Bremse is working continuously on the further optimization of safety during the braking process of vehicles while at the same time minimizing the polluting emissions of its products. Particular material characteristics are required for the reliable braking of rail and commercial vehicles on different surfaces and under different weather conditions. The solutions already used with reduced wear and tear of the brake pads and thus lower abrasion emissions include brake discs from special aluminum and brake pads with optimized coolant capacity. In addition, the use of coated brake disks can offer further reduction potential with regard to brake abrasion emissions going forward. Corresponding concepts are examined on an ongoing basis.

In general, as part of our development work we regularly examine the characteristics and functions of the materials used and seek to improve them. At RVS, we measure the particle and particulate matter emissions of the friction pairing of train brakes, for example at specially upgraded test rigs. To this end, we test the interplay of different combinations, e.g., of brake disks made from different materials and surfaces with optimized brake pads or of train wheels with optimized brake pads. The analyses form the basis for the development of approaches to the design of brake pads and brake disks which produce less particulate matter. In addition, we incorporate the findings from our test series into the development of industry standards for particulate matter measurements.

Further technologies in development and, in part, already being implemented to ensure compliance with future environmental standards include intelligent electro-dynamic solutions for traction and brake control. Their increased use leads to a sharp reduction in mechanical wear and tear and thus in less abrasion and the associated particulate matter emissions. One example of this is the linear eddy current brake, which in combination with the electro-dynamic brake can create a friction-free service brake. Moreover, Knorr-Bremse together with a technology specialist wants to offer a newly developed dust extraction application. The application has been designed to reduce particulate matter emissions during the braking process effectively.

The zero-emission road map of CVS also comprises a large number of emission-reducing products whose material characteristics and behavior were carefully analyzed and optimized. The SYNACT® disk brake family, for instance, aims to reduce not only carbon emissions, but also the emission of pollutant particle matter. The use of copper-free brake pads in the disk brake avoids friction between copper particles that impact soil and water. Knorr-Bremse’s e-compressors are also designed to reduce the emission of oil and fine particulate matter during vehicle operation thanks to their energy-efficient functioning. We are already integrated into the commercial vehicle approval process in safety and with the introduction of the EURO-7 standard we will expand this contribution to emissions, especially brake dust emissions.

We also offer technological solutions for the noise management of vehicles. To reduce the noise pollution we developed the eSilencer silencer for commercial vehicles, for example. For rail vehicles, the noise reduction will be ensured in particular for residents through the so-called whisper brakes or the silent mode of the intelligence air supply system, AirSupply Smart.

Targets related to pollution [E2-3]

We have not yet determined quantitative targets to avoid pollution because there are as yet no uniform standardized measurements methods. We are, however, evaluating a possible quantitative objective on an ongoing basis as part of the steady development of our sustainability strategy.

Water resources [E3]

We look at the continuous availability of high-quality freshwater as a global challenge, including for us as a company. Through efficient water management we are therefore aiming for a globally sustainable and responsible handling of a water as a resource.

Material impacts, risks, and opportunities [SBM-3]

2.26 WATER RESOURCES: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Risk (medium-term)	Water withdrawal and consumption	Physical risks: water scarcity, water stress, the decline of infrastructure or of water quality, and the non-availability of water resources in the upstream value chain and in our own operations can lead to disruptions in the supply chain and to production stoppages

Due to our product portfolio and the production technologies we use, our consumption of water resources and thus our influence on them is limited. Despite the low water consumption and the associated dependence on water, however, we see the sustainable use of water as a resource at our locations as an important task of our environmental management. The increasing global water scarcity constitutes a potential risk for our company, especially in regions with water stress. There supply chains and production processes can be interrupted through acute or chronic water availability bottlenecks or failures. A tense supply situation could, moreover, lead to higher capital expenditure in production. To identify potential risks due to water scarcity, we carried out a water risk analysis in the reporting period using the online tool Aqueduct Water Risk Atlas at our locations around the world. Even though potential risks due to water scarcity were identified at 34 of the 104 locations checked, we were unable to determine any current risk during the analysis of the implemented countermeasures.

As part of our water management we are developing risk mitigation strategies that are in accordance with our overarching sustainability objectives. We are taking targeted action to optimize water consumption at our locations, especially in the areas where water stress has been determined. They include initiatives for water reuse and the use of technologies that reduce water use. In addition, we require our suppliers to take steps for efficient water use to minimize and improve the use of water along the entire value chain.

Policies related to water [E3-1]

The Group-wide HSE Policy describes our commitment to the protection of water resources. We aim to design our production activities and our products and services along the upstream and downstream value chains such that they do not have any negative impacts on the water as a resource, especially in areas with water stress. We see appropriate water treatment as a step toward more sustainable water management. Further information on the contents of the HSE Policy can be found in the appendix to the Sustainability Statement **Table → 2.53**.

Our Supplier Code of Conduct commits all suppliers to compliance with all relevant environmental protection laws. We expect our suppliers to comply with international environmental standards and to handle natural resources sparingly and responsibly. Furthermore, they must minimize the negative impact of their operations on water resources and reduce emissions in the water.

Management approach and actions in relation to water resources [E3-2]

Water management is part of our environmental management, which is guided by the principle of the environmental management standard ISO 14001. Operational implementation at our locations is decentralized and performed by the local HSE organizations. The local management of every location is tailored to the specific local circumstances and to the requirements of local laws and provisions.

As part of water management we aim for an efficient and environmentally friendly use of water. To this end, we record our water consumption and perform an environmental aspect analysis at the locations in the course of ISO 14001 certification. It measures, among other things, the amount of water consumption and the release of pollutants into the water. Where risks are identified we implement the necessary improvement measures in our environmental management system. We review our technical infrastructure with regard to water, such as water treatment plants, on a regular basis in accordance with legal requirements and ensure their continuous operation.

In the 2024 reporting period, the total amount of water sourced for all locations globally came to 2,190 thousand m^3. Almost 80% of this water sourced from the environment came from groundwater reservoirs. It is used primarily for sustainable cooling and heating systems at the German locations in Munich and Aldersbach and, in line with statutory provisions, is returned in its entirety to the aquifer in chemically unchanged form. Most of the remaining amount is freshwater from municipal suppliers. We use this primarily for our production processes, such as cleaning, varnishing, and galvanizing and for location operation. For washing and cleaning processes during the production of a product we also use purified water in some cases. We prevent groundwater hazard in the course of production by ensuring, during surface treatment processes by means of technical measures, that no hazardous substances can get into the soil in the event of disruption to the plant.

At some locations, the withdrawal of freshwater and the amount of wastewater are reduced through the use of water treatment facilities. Wastewater is usually discharged into the public sewer system and cleaned in municipal wastewater treatment plants. The compliance with thresholds is monitored by us and by the authorities. At one of our locations in India there is no public sewer system. There, the water is purified according to national stipulations and used to water the green spaces.

In the 2024 reporting period, we implemented measures for efficient water management and, for example, at the Munich location we reduced car washes from weekly to on demand. At the North American Bendix locations, the procedure for the use of coolants was improved. Coolant can be recycled and reused through filtering and oil removal. This reduces the demand for new coolant and water; moreover, fewer coolant residues need to be disposed of. In Acuña, Mexico, the water used during weekly tests of the fire extinguisher system is collected and reused instead of draining.

While around 33% of our locations are in areas of water stress, water sourcing at these locations only came to about 9% of the total volume of water sourced within the company. This reflects our endeavor to implement water-saving and water-reusing actions at the locations, particularly in areas of high-water stress. For example, at Knorr-Bremse South Africa (RVS, CVS) near Johannesburg we use a water recycling plant for wastewater recycling. We thereby realize a closed water circuit with a surface treatment center in production. At the Indian location in Palwal (RVS), rainwater is collected and filtered during the monsoon season. With an overall water capacity of around 15,000 m^3 annually, this allows us to reduce freshwater use at the location considerably. A similar system is currently being introduced at the Pune location (CVS); it is due to become operational in 2025. The site is already using an automated technology for biological water treatment to recover wastewater. The purified water is used to water the green spaces on company land. At our Brazilian location in Itupeva we are also watering green spaces with treated water. The measure, ongoing since 2024, fits into our continuing water use program at the location and is designed to reduce freshwater usage by more than 700 m^3 per year.

To identify potential water protection measures in the upstream value chain, we performed a water risk analysis in the reporting period. Using the Aqueduct Water Risk Atlas, an online tool, direct suppliers in areas of high water risk were identified and asked about their measures to minimize water risks. Based on the findings of these and future analyses we will continue to examine the options for specific water protection measures in the upstream value chain.

Targets related to water resources [E3-3]

Until now we have not defined any quantitative targets for our water management. In the reporting period, we started work on a valid database using a newly implemented measurement infrastructure. In this connection, we are for the first time reporting global water management metrics to allow us to derive quantitative medium-term targets from them.

Independently of measurable objectives, in line with the HSE Policy we aim to use water as a resource in a sustainable and thus efficient manner and, if possible, to reuse it multiple times through recirculation wherever possible. In this, we rely on our environmental management, which is guided by the ISO 14001 standard. Through internal and external audits we check compliance with legal requirements and internal stipulations at the locations. The HSE departments of the Knorr-Bremse locations implement local water management measures and set location-specific targets where required. At the moment, no Group-wide tracking of targets and their achievement is in place. The regular implementation of the water risk analysis will support us in the qualitative tracking and assessment of our measures.

Water consumption [E3-4]

2.27 WATER CONSUMPTION*

	2024
Total water withdrawal (thousands of m^3)	2,190
Total water consumption (thousands of m^3)	90
Total water consumption in areas of high-water stress (thousands of m^3)	33
Total water consumption in areas at water risk (thousands of m^3)	2
Intensity of water consumption (m^3/€ million)	11.5

* Total water recycled and reused metric is classified as not material for Knorr-Bremse.

Water consumption is calculated using the water withdrawals less the water outflows. Water consumption is recorded Group-wide and relates solely to direct operational activities. The available data is based on the direct measurements of water meters and on invoices from water service providers. Areas with water risks were identified using the Aqueduct Water Risk Atlas, which rates regions' water stress and danger.

Resource use and circular economy [E5]

The efficient use of materials has gained substantially in importance in the business value chain. This is due to the increasingly limited local resources and the ecological challenges associated with their extraction. The minimizing of waste through largely closed loops has also become a key concern for companies. Knorr-Bremse is also continuously working to optimize the use of resources and, where possible, to reduce the consumption of (primary) materials. Furthermore, we promote recycling and reuse, both in the use of materials and in our products.

Material impacts, risks, and opportunities [SBM-3]

2.28 RESOURCE USE AND CIRCULAR ECONOMY: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Negative impact (short-term)	Resource inflows	Procurement of primary raw materials and of products and materials from non-renewable resources in the upstream value chain has an impact on the availability of global resources
		The use of non-reusable materials and packaging leads to burdens on the environment in the downstream value chain
Positive impact (short-term)		Reduction in the use of primary raw materials and of products and materials from non-renewable resources in the upstream value chain through the implementation of measures in the areas of the circular economy, the optimization of the use of materials, and supplier collaboration
		Strengthening and optimizing resource use and circular economy through the expansion of the use of recycled materials and the remanufacturing of products to extend the product life cycle
Positive impact (short-term)	Product and materials	Development, provision and/or use of product solutions/packaging with circular economy capability together with the corresponding cooperation with stakeholders
Negative impact (short-term)	Waste	Waste generation in the upstream value chain through resource and material procurement
		Waste generation in our own operations during production and manufacturing processes
		Waste generation in the downstream value chain during the product use phase and at the end of the life cycle

Knorr-Bremse is increasingly focusing on actions to promote the circular economy. In production we aim to minimize the use of primary raw materials where possible and make increasing use of recyclable materials. Furthermore, we seek to avoid waste or, if it is inevitable, to reuse it in an environmentally friendly way as far as possible. A high percentage of the production waste is already transferred to external recycling processes.

In the product life cycle we are careful to increase the useful life of products wherever possible, e.g., through repairs and remanufacturing. In this connection, through the EcoDesign approach we are integrating the principle of circularity already in the early phase of our product development. The focus is on factors including optimization of the environmentally friendly selection of production material, environmental impact accounting, and the preparation of products for industrial remanufacturing. Remanufacturing (CVS) / overhauling (RVS) is now a strategically important line of business of Knorr-Bremse. Through the recyclables and product life cycles and the associated new business models we want to create added value for our company, our business partners, and the environment.

Policies on resource use and circular economy [E5-1]

Knorr-Bremse has set down its claim to sustainable handling of resources and the strengthening of the circular economy in binding directives.

The Group-wide HSE Policy describes our commitment to environmental protection through the sustainable use of natural resources, the increasing use of renewable and secondary resources, and application of recycling methods. In waste management we are committed to the extensive avoidance of waste and are guided in its implementation by the principles of a circular economy and waste hierarchy. In addition, we integrate environmental matters into both our production processes and our product design by developing and promoting safe, environmentally friendly and energy-efficient technologies. Further information on the HSE Policy can be found in the appendix to the Sustainability Statement Table → 2.53.

The internally developed EcoDesign assessment form supplements our requirements and targets for ecological product design in both divisions. In addition to various internal requirements, regulatory stipulations, standards, and customer expectations. The form also provides assessment tools such as supportive standards and methods for evaluating potential environmental impacts. Further details are described in the Management approach and actions for resource use and circular economy [5-2] chapter.

Our Supplier Code of Conduct requires our suppliers to comply with all relevant laws and international environmental standards, which also includes the sparing and responsible handling of all natural resources. We also require them to minimize the negative impacts of their operations on the environment and to push ahead with the development and spreading of energy-efficient and environmentally friendly technologies.

Management approach and measures for resource use and circular economy [E5-2]

A key element of our circular economy activities is ecological product design, which creates important requirements for the recycling of materials and the remanufacturing/reworking of products for a further product life cycle. In particular, the industrial remanufacturing of our products forms a major part of our business model with a 12.0% share of the Group's revenues (including labor and spare part demand) in the reporting period. Moreover, we want to close the raw material cycles through effective waste management. All subsequently stated measures are implemented continuously and across the company by the responsible departments.

ENVIRONMENTAL PRODUCT DESIGN

With our EcoDesign approach we aim to develop products, processes, and services that have improved environmental impacts with regard to longevity, the conservation of resources, and the avoidance of emissions across the entire product life cycle. Accordingly, we have integrated sustainability aspects into our innovation and development processes. This also includes the assessment of the potential of upcoming projects and product ideas with regard to sustainability.

Thus in the RVS division's innovation projects, EcoDesign is one of five different assessment criteria in the planning process. In the reporting period, 69 projects were classified using our EcoDesign criteria; 4 of the projects were completed and 43 active projects were prioritized. The management has discussed and adapted the resulting ranking and signed off on the project portfolio.

When developing new products and solutions, we want to take account of and minimize their environmental impact from the start. We therefore analyze and evaluate them according to EcoDesign criteria along the product life cycle and, on this basis, identify improvements. Both divisions have introduced a binding evaluation process that takes account of the following EcoDesign criteria:

- Material extraction and production phase: hazardous substances, weight (CVS division), choice of materials

(incl. proportion of secondary material), origin of materials (conflict minerals)
- Use phase: weight (RVS division), energy efficiency, longevity, direct emissions
- End of product life: recyclability

In the RVS division the development teams are obliged to analyze and evaluate both innovation projects and complex customer projects using the EcoDesign assessment form. It defines our requirements for sustainable product design and provides assessment tools for the evaluation of the environmental impacts. For example, the recyclability analysis of the materials used helps us to identify and reduce their potential environmental impact (see the Resource outflows [E5-5] chapter). For example, in 2024, the EcoDesign assessment form was used for an air dryer to create a design with an environmental footprint that is as small as possible.

The CVS division has set down its EcoDesign requirements and targets in the product development and commercialization (PDC) process. The requirements apply to new products and products that have undergone material changes and, accordingly, are already considered during project planning and in product and process development. Specific directives and concrete tools and methods support this process. They include, for example, the International Material Data System (IMDS) for identifying hazardous and materials requiring labeling, comparative analyses of material-specific environmental impacts, and the EcoDesign assessment form. In 2024, in a project for a desiccant cartridge for an air dryer it provided important findings for an optimized ecological product design.

In addition, we also carried out life cycle assessments (LCAs) during the reporting period to calculate product-related environmental impacts. In the RVS division, analyses regarding the best possible friction pairing combinations were performed and, in the CVS division, regarding pneumatic disk brakes and brake pads. The LCAs were conducted in accordance with standards such as ISO 14040 and/or the UNIFE Product Category Rules. The analysis results deliver valuable insights on the use of materials and energy in production and on impacts in the product use phase through to disposal.

Ongoing training of engineering and Research & Development employees in the past few years has given them a shared understanding of EcoDesign standards for evaluating product development. A further goal is the closer integration of Purchasing into EcoDesign as a supplier interface. For example, the global purchasing organization received training again in RVS in 2024 on environmental law requirements and their implementation, and the potential for improvement was discussed in a workshop at the internal Global Purchasing Conference.

REMANUFACTURING OF PRODUCTS

Our remanufacturing (Knorr-Bremse TruckServices, CVS division) and overhauling (Knorr-Bremse RailServices, RVS division) business units process used Knorr-Bremse products industrially so that they can subsequently be used in vehicle operation with identical functionality. The extended product life cycles result in reduced material usage and energy savings, which influence both our and our customers' life cycle assessment positively. As a necessary requirement, with our EcoDesign approach we are designing the products for industrial remanufacturing already at the development and construction stage.

Knorr-Bremse TruckServices offers around 500 different remanufactured products in the Europe/Africa region under the EconX® brand, including disc brake clamping units, compressors, EBS modules, and electronic clutch actuators. The refurbished products are installed in trucks again and/or individual parts and commodities are recycled directly. LCAs enable us to determine the CO_2 reduction for each part. In all, in 2024 as part of the investigated products 3,850 tons of CO_2e, 1,350 tons of material and around 21 MWh of energy were saved as a result of industrial refurbishing. Our Europe-wide repair services for electronic control units in trucks, buses, off-highway, and agricultural vehicles offer our customers a low-cost alternative to new vehicles while at the same time reducing the amount of electronic waste. Bendix refurbishes air dryer cartridges for trucks at the location in Acuña, Mexico. By using a mixture of 80% remanufactured desiccant and 20% new desiccant, the location was able to avoid approximately 130 tons of material and 680 metric tons of CO_2 in 2024.

RailServices offers our rail vehicle customers overhauling and repair services in the over 50 global service centers. The fitting of overhauled components, for example compressors, aims to enable their use and functional capability up to the end of the train's useful life. The exchange of components or addition of new functionalities can also be part of a comprehensive upgrade or modernization project that extends the useful life of the entire train. In the RVS division, Knorr-Bremse refurbished approximately 980,000 products of extremely different types across all product groups through the global service center network in 2024. These products included compressors, brake calipers, braking system valves, door controls, entrance system actuators and door leaves; ventilators, cables, and electronics for air conditioning systems.

WASTE MANAGEMENT

As part of our environmental management we want to reduce our amounts of waste continuously. In terms of the waste pyramid we pursue three key targets: the avoidance of waste through the deliberate and optimized use of resources, the substitution of materials with more environmentally friendly alternatives, and the promotion of the circular economy for the reuse or recovery of materials.

To avoid waste, we adapt processes directly to our locations. Our company-specific production system (KPS) helps us reduce the volume of waste in production. Using value stream analyses, we can identify and eliminate various types of waste such as overproduction and avoidable reject products.

In the reporting period, we implemented waste-reducing measures at various locations. For example, we were able to partly reduce electrical waste at our Brazil location by reusing goods. At Knorr-Bremse RailServices in Manchester (UK) we pass on personal protective equipment that cannot be reused to a specialized partner for textiles recycling. In North America we systematically continued the Zero Waste Initiative at Bendix. The aim of this initiative is to eliminate landfill waste altogether. Eight production locations and the Group headquarters have achieved this target again by keeping waste from landfill through reuse, recycling, composting, and other forms of waste prevention, such as energy harvesting.

We are also work to ensure that the packaging material for the transport of purchased parts and our products is reduced. The focus here is on the use of reusable materials and containers in particular. We are looking at the use of returnable load carriers and other packaging materials at various locations in cooperation with our suppliers and customers. In Florence (RVS), Italy, we have been using recyclable heavy-duty cardboard boxes instead of plastic packaging to send original-parts kits for overhauling since 2024. The cardboard design provides special protection for critical components and is easier to handle during the work.

Waste disposal is organized locally, taking statutory provisions into account. To allow appropriate disposal, we are working with licensed service providers that are certified at regular intervals. Our locations are obliged to obtain documented proof of the method used for the disposal of production waste from the service providers.

Targets on resource use and circular economy [E5-3]

By adding value in a circular way, we want to contribute to the conservation of natural resources and a reduction in our environmental footprint. To this end, we identify potential for optimization along the value chain; in addition, we assess the implementability of best practices in our business model. The measures subsequently implemented are regularly reviewed and subjected to a qualitative assessment on a regular basis. Their number and the relevance of their contribution to resource conservation additionally provide us with findings on the progress made in our circular added value. We work on quantitative targets that we want to report in future as part of our commitment to the circular economy.

Resource inflows [E5-4]

In 2024, we mainly procured castings, processed parts, and aluminum, iron, and steel sheets from suppliers for our production processes. Moreover, electronic components, friction materials, and plastics in particular were used in the manufacture of our products. The following table shows the weight shares of the primary and secondary materials used. Table → 2.29

2.29 RESOURCE INFLOWS

	2024
Total weight of products and technical and biological materials used (t)	402,900
Weight of the secondary components, products, and materials used, reused, or recycled in the manufacture of products (t)	129,300
Share of the weight of the secondary components, products, and materials used, reused, or recycled in the manufacture of products (%)	32

The aggregate weight data is collected globally in our internal data systems and includes all materials purchased directly in both divisions. The data regarding the shares of primary and secondary raw materials is based on estimates of industry averages, materials, and supplier locations. This method provides us with an overview of our resource inflows although the availability of consistent and reliable information from the upstream value chain is currently limited. We have initiated measures such as closer cooperation with suppliers and requests for primary data with a view to improving data quality.

Resource outflows [E5-5]

In both divisions we offer a broad portfolio of innovative products that are aligned with the principles of the circular economy in many aspects and are geared to longevity, easy maintenance, reparability, reusability, and overall optimization.

In the RVS division we equip rail vehicles for local and long-distance transportation with highly developed systems and solutions that are critical to safety and business operations. They include braking, entrance and air conditioning systems, power electrics, sanitary systems, automatic coupling systems, wiper and wash systems, and stationary and mobile testing equipment. Furthermore, Knorr-Bremse RailServices provides services and innovative solutions in the Rail aftermarket across the entire life cycle of a vehicle.

In the CVS division, braking systems for trucks, buses, trailers, and agricultural machinery form part of the portfolio. The focus here is on electronic brake control, driver assistance, and air supply systems, all of which make a material contribution to transportation safety. CVS also produces drive systems including torsional vibration dampers for diesel engines that guarantee robust and reliable performance. The products are characterized by longevity and are easy to disassemble, making it easy for them to be repaired, recycled, and reused.

We strive to maximize the expected lifetime of our products, taking into account legal and customer-specific requirements. The expected lifetime is the period during which the product is expected to perform its intended function reliably under normal conditions of use. It varies for our products on the market, depending on the division.

At RVS, products are designed for an expected service life of up to 30 years, depending on the specific product and project requirements. Due to the project business, no usual industry averages on lifetime are available for a direct comparison.

At CVS, the average product life cycle is up to 15 years. This estimate is based on the assumption that after this period we may no longer have access to the vehicle to provide services. This may be due to the fact that the vehicle has reached the end of its operational lifetime or because we do not offer an aftermarket service on a local market. Because all components used in our products must meet the requirements for the system lifetime, in general no additional specific information on the lifetime are defined.

Whereas we derive the expected lifetime in the RVS division from individual project specifications and requirements, our estimates in the CVS division are based on market observations across the vehicle's entire lifecycle. This methodology is based on internal data and assumptions regarding vehicle use and maintenance practices. Limitations result from the variability of the individual product application cases and the lack of publicly available averages, typical of the industry, for a direct comparison.

We promote the longevity of our products and systems by making available repair options for them. In both divisions, the design of our products and components for reparability together with a comprehensive offer of repair services provide the prerequisites for this.

Most Knorr-Bremse products and systems in both divisions can be repaired. The only exceptions are wear parts, consumables, individual components, and small parts where repairs are not economically viable. Accordingly, we offer repair sets for a large number of our products whose use allows workshops and operators to extend the life cycle of products. The available information was collected and validated in-house because there is as yet no established external assessment system for the quantification of reparability.

In both divisions we analyze the recyclability of our products. In 2024, 44 projects were audited in RVS on the basis of a recyclability analysis according to the ISO 22628 and/or ISO 21106 standards. The average recyclability of these projects was above 95%. The calculation methodology is based on a detailed assessment of the materials used in our products. We assumed a uniform material composition for all products and uniform recycling opportunities.

In the CVS division, the recyclability was calculated as totaling over 80% of the total weight of the produced products. This percentage is based on an analysis of the total weight and the material composition of our product portfolio using averages. This means that the recyclable share of a product is estimated on the basis of this average data without performing specific measurements.

In waste management, Knorr-Bremse favors the recovery of substances and energy in waste to landfill wherever possible. Waste at Knorr-Bremse consists of residual waste as well as, in particular, steel and iron materials (scrap metal), light metals, polymers, consumables, and packaging materials. Additionally, electroplating sludge is produced during the surface treatment of metallic materials. Table → 2.30

2.30 WASTE

	2024	2023
Total amount of waste generated (t)	**65,500**	**68,800**
Waste transferred from disposal (t)	**56,500**	**55,600**
Hazardous waste (t)	5,600	5,600
Preparation for reuse	1,200	1,200
Recycling	2,000	2,100
Other recovery operations	2,400	2,300
Non-hazardous waste (t)	50,900	50,000
Preparation for reuse	300	1,300
Recycling	44,800	44,000
Other recovery operations	5,800	4,700
Waste destined for disposal (t)	**9,000**	**13,200**
Hazardous waste (t)	3,000	3,000
Incineration	1,400	1,300
Landfill	200	300
Other disposal operations	1,400	1,400
Non-hazardous waste (t)	6,000	10,200
Incineration	3,300	5,300
Landfill	2,400	4,400
Other disposal operations	300	500
Non-recycled waste (t)	**9,000**	**13,200**
Non-recycled waste (%)	13.8	19.2
Total hazardous waste (t)	**8,600**	**8,600**

The calculation basis for the reported waste is usually the invoices received from waste recipients. Where information on the disposal type is not available, the volumes of waste are allocated to the “waste for landfill” category.

Own workforce [S1]

There are 32,549 people (including contingent workers) around the world who work for Knorr-Bremse, at over 100 locations in more than 30 countries. They make a decisive contribution to our business success. We see the international nature and broad range of skill sets and perspectives of our workforce as enriching our interactions and as an important driver of creativity, innovative power, and cultural competence. We want to offer all our employees a professional environment that enables them to develop their personal capabilities. This includes a safe work environment, health care measures, opportunities for training and development, and offers to improve work–life balance for all employees.

Material impacts, risks, and opportunities [SBM-3]

2.31 OWN WORKFORCE: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Negative impact (short-term)	Health and safety in the workplace	Damage to the body, mind, and life of employees due to work-related accidents in our own operations
Positive impact (short-term)		The occupational health and safety management system ensures a healthy and safe workplace for all employees
		Effective emergency strategies and training programs for unplanned events such as fires or accidents, e.g., involving chemicals
Positive impact (short-term)	Personnel development	Provision of training and development opportunities in our own operations, such as expanding the knowledge and skills of employees and thereby enhancing performance, innovation, and staff retention
		Processes that promote a performance-oriented career, enhance employee satisfaction, support talent development, and create a fair and inclusive working environment
Positive impact (short-term)	Diversity, equity, and inclusion	Fair and unbiased recruitment processes in our own operations that ensure equal access to opportunities for all applicants and that diversity and inclusion is promoted within the company
		Equality of female and male employees leads to pay equality, access to opportunities for all qualified talent, a more balanced gender distribution, and a more inclusive, non-biased, and fairer work environment for all
		A work environment that reflects different perspectives and backgrounds and improves cooperation and the resilience of Knorr-Bremse
Positive impact (short-term)	Working conditions	Flexible working times in our own operations can reduce work-related health problems and increase the general satisfaction and productivity of employees
		Health care programs improve the general well-being and productivity of employees
		Programs to improve the work-life balance increase motivation and productivity at work and reduce employee turnover
		Provision of training and development opportunities that expand the knowledge and capabilities of employees and thereby potentially enhance performance, innovation, and staff retention
		Processes that lead to performance-oriented career growth and enhance employee satisfaction, promote talent development, and create a fair and inclusive work environment
Positive impact (short-term)	Adequate wages	Securing the livelihoods of our employees and contributing to economic stability in various regions through adequate wage practices
		Ensuring both genders receive the same wage for the same work
		Alignment with inflation and cost-of-living trends during pay negotiations
Negative impact (medium-/long-term)	Human rights	Human rights violations in our own operations as a result of a failure to comply with human rights due diligence

As an innovation driver in the mobility sector, we rely on highly qualified and motivated employees. To ensure that Knorr-Bremse can continue its successful development going forward it is essential that we increase our attractiveness as an employer further. In the BOOST corporate strategy published in 2023, we therefore defined "people" as one of three overarching action areas. It set out four material key goals: We want to develop our corporate culture, further expand our talent management, further optimize and digitalize our human resources (HR) organization, and become an employer of choice. The global HR strategy specifies the "people" area of action and initiates corresponding measures that were pushed ahead with in the reporting period. It is only in this way that we are able to recruit first-rate talent, develop and foster it, and retain our qualified specialist and executive staff in the company.

Our reporting takes into account the following groups of our workforce:

- Employees are all persons who are on the Knorr-Bremse payroll and are fully subject to a duty to follow our instructions. There is a direct employment relationship between Knorr-Bremse and its employees.
- Contingent workers (= non-employees according to ESRS/CSRD) are persons from an external agency or institution ("agency") who are available to Knorr-Bremse on a temporary basis. They follow Knorr-Bremse's instructions but are not on our payroll. Contractual relationships only exist between the agency and Knorr-Bremse (temporary agency work contract) and between the agency and the contingent worker (usually an employment contract).

The measures and processes described in this chapter generally relate to the Knorr-Bremse employees. Where these measures and processes also include contingent workers, the term "own workforce" is used.

The assessment of the potentially negative impacts includes the composition of employees and the existence of vulnerable groups (persons with a disability, children, and pregnant women). This was done in the context of our human-rights risk analysis for our own operations.

It is extremely important for Knorr-Bremse to meet its human rights due diligence. We examined our own operations for risks with regard to the violation of human rights, both in the materiality assessment and in our risk analyses pursuant to the German Supply Chain Due Diligence Act. For the year 2024, in our own workforce we identified such risks that may have particularly serious consequences for the physical and mental health and for life, namely health and safety in the workplace, and forced labor and child labor. We prioritize these risks in all companies around the world, independently of the likelihood of occurrence.

The transition plan for climate change mitigation does not result in any material impacts on our own workforce.

The content structure of the Own workforce [S1] chapter deviates from the structure of the European Sustainability Reporting Standard (ESRS) in the following aspects. We describe the contents required by law on our principles, measures, targets, and metrics in individual subject-specific sub-chapters: Principles and employee participation, Employment conditions and personnel development, Diversity, equal opportunities, and inclusion; and Occupational health and safety.

Principles and employee participation

Knorr-Bremse has set down its expectations for the fair treatment of employees in various directives and is bound by them. If there are complaints in connection with violations, we systematically follow up on them. We also attach great importance to regular exchange with employees. There are various dialog formats through which we receive their feedback, and this feedback, for example, is incorporated into the development of our corporate culture.

POLICIES RELATED TO OWN WORKFORCE [S1-1]

We set out our claim to be a responsible employee in the Knorr-Bremse Code of Conduct and in our Human Rights Policy, which also serves as a declaration of principles within the meaning of the German Supply Chain Due Diligence Act. Both policies are available in the intranet and on our Group website. Within the Knorr-Bremse organization they form the basis for daily interactions and set out the expectations for human rights and the environment that Knorr-Bremse has of its own workforce.

The Knorr-Bremse Code of Conduct, which applies throughout the Group, sets out key principles and rules for the respect for human rights and to promote a work environment that is based on dignity, trust, and respect and free from discrimination. The code is binding on all employees and forms part of the employment contract (see appendix to the Sustainability Statement **Table → 2.53**).

Our Human Rights Policy specifies these human rights requirements, including labor rights and safety at work. It prohibits human trafficking, forced labor, and child labor and describes how we want to protect the human rights of all persons who work for us either directly or indirectly. We implement the Human Rights Policy by means of a human rights risk management system and conduct a human rights risk analysis of own operations yearly or on a case-by-case, as-needs basis. We evaluate this policy and our processes at least annually on the basis of our risk assessment, whistleblowing reports, and further information such as measures implemented. Our Human Rights Policy also explicitly includes our suppliers and sets out certain requirements for them in conjunction with our Supplier Code of Conduct. They relate to aspects including safety at work, precarious employment, human trafficking, and forced and child labor. Further information on our supplier management can be found in the Workers in the value chain [S2] chapter.

These policies are in accordance with international agreements on the protection of human rights and labor rights:

- We have signed the United Nations (UN) Global Compact.
- We are guided by the UN Sustainable Development Goals (SDGs).
- We comply with national laws, the Declaration of the International Labor Organization (ILO) on Fundamental Principles and Rights at Work, and the UN's Universal Declaration of Human Rights.
- We orient our processes on the UN Guiding Principles on Business and Human Rights and the German Supply Chain Due Diligence Act (LkSG).

To implement our human rights-related requirements in our own operations we rolled out a Human Rights Due Diligence Guideline in 2024. It defines the various due diligence obligations to avoid human rights violations, including child labor and forced labor. The policy also stipulates minimum standards, e.g., regarding the selection and monitoring of employment agencies, the design of employment contracts, and age verification.

We have reaffirmed our requirements for diversity, equal opportunities and inclusion in the Group-wide Diversity, Anti-Discrimination & Anti-Harassment Policy that was drafted in the reporting period. It supports the goal to create and maintain an inclusive and open working environment free from discrimination and harassment. The policy ensures the equality of all people, regardless of their visible and invisible characteristics, such as ethnic origin, skin color, gender, gender identity, sexual orientation, disability, age, beliefs, political views, national origin, social origin, and other characteristics. Moreover, it describes possible forms of discrimination and harassment, explains the individual co-responsibility of employees, executives, and HR for respectful interactions in the workplace, and spells out the collective obligation to report incidents observed or party to using the described complaint channels and whistleblowing systems. The responsibility for implementation of the policy lies at the top level with the Executive Board. The member of the regional Management Board of the location in question is responsible for the operational implementation of the policy.

Our process of engagement is supported by specific resources, including the HR teams Culture & Talent Development and HR Business Partnering, which enter into dialog in cooperation with the executives and teams. The resources are adjusted annually based on the priorities of the engagement, thereby ensuring flexible allocation in order to tackle any newly emerging problems of employees and enhance the impact of the engagement.

Our key guideline for occupational health and safety is the Health, Safety, and Environment (HSE) Policy that applies throughout the Group and has been published on the intranet and on our website. It defines, among other things, binding commitments to the avoidance of work-related accidents. Further information on the HSE Policy can be found in the appendix to the Sustainability Statement, **Table → 2.53**.

INVOLVEMENT OF EMPLOYEES [S1-2]

The involvement of employees provides us with important additional perspectives when making decisions on social and human rights issues. These include key topics such as health and safety in the workplace, personal development opportunities, diversity and equal opportunities, working conditions, and fair wages. For this, Knorr-Bremse relies on direct communication and feedback. In addition, we know how important it is to work together with workers' representatives in an objective and trusting manner. We respect employees' right to freedom of association and assembly and to collective bargaining, wherever these are legally permitted and possible.

The Global Head of Human Resources bears the overall responsibility for measures aimed at direct involvement of employees and reports regularly to the Executive Board member for Integrity, Legal, IP, Data Protection, and Human Resources. Employees are involved through various globally standardized formats:

- The annual Staff Dialogue process (from November 2024: Performance & Growth) is used to assess performance, promote skills, and evaluate the potential and individual development of each employee. The results of the appraisal form the basis for defining development goals and the resulting measures such as training sessions. In November 2024, we rolled out the annual employee appraisal via a newly introduced IT tool called Performance & Growth. We will use this platform to offer additional functions for an exchange between managers and employees throughout the year.

- The Leadership Feedback initiative provides important insights about the individual professional development that managers require. In it, managers responsible for at least three employees are given feedback on the various aspects of their leadership. Leadership Feedback is obligatory and must be conducted within a period of two years. The aim is to jointly develop measures to improve collaboration on the basis of the results, strengthen dialog between managers and team members, and establish an open feedback culture.
- The Global Employee Survey (GES) is conducted approximately every two years using an external tool. In this employee survey, employees worldwide have the opportunity to answer questions on a range of topics. They can explain their feedback and make specific suggestions for improvement in free-text input fields. The survey results are presented centrally by management and discussed at team level between managers and their employees. The pulse check is a shortened survey that takes place in the interim years, whereby the effectiveness of measures resulting from the GES is reviewed. The entire process is actively monitored by the Executive Board.
- Other local and global exchange formats between the Executive and Management Boards as well as employees include town hall meetings and employee meetings. They take place at different intervals and in different formats depending on the requirements of the respective country. Questions from employees to the management are a fixed item on the agenda.

In addition, Knorr-Bremse involves employees through trusting cooperation with the Works Councils, where these exist at the locations. The Works Councils represent the interests of the employees before the employer on the premises (local Works Council), in the company (Central Works Council), and in the Group (Group Works Council) by exercising their statutory participation rights. Management, the Human Resources department, and the Works Councils meet regularly several times a year and on specific occasions – for example, at economic committee meetings or to conclude works agreements. There is also a European Works Council, which acts as a forum for dialog between Knorr-Bremse and employee representatives on cross-border issues.

Knorr-Bremse takes employee feedback seriously and takes it into account in its strategy, its processes, and in the individual development path of each employee. We consider our exchange formats to be effective tools for incorporating the views of our employees into decisions and activities. In particular, the findings from our employee survey prove to be an important indicator of the effectiveness of our measures and the satisfaction of our employees. The results help us to further develop our corporate culture by enabling us to recognize our strengths and identify future areas for development. Targeted workshops and action plans at our locations worldwide are also based on the evaluations. The most recent global employee survey took place in February 2025.

In addition, Knorr-Bremse supports the creation of Employee Resource Groups (ERGs), which are voluntary networks led by employees to promote a sense of belonging. The ERGs allow Knorr-Bremse to gain deeper insights into the views and needs of different employment groups. The focus of the groups is country-specific and all employees are welcome to participate in each group for their location. The largest network is Women@KB. Initially founded in Munich in 2022, the women's network has now established itself in eight international locations. Other groups combine topics such as veterans and intergenerational exchange. The ERGs work closely with Knorr-Bremse's Diversity Office, propose measures to improve working conditions, and increase the visibility of the groups within the company.

REMEDIATING NEGATIVE IMPACTS ON OWN WORKFORCE [S1-3]

We have implemented a whistleblower and complaints system to identify and mitigate negative impacts on the workforce. It enables all company employees and external parties to report violations of human rights, laws, and internal guidelines and to submit information and complaints about potential violations. Our employees can contact the Compliance department, the Works Council, and, at German locations, the complaints office in accordance with the General Equal Treatment Act. We also use our publicly accessible whistleblower system to receive and confidentially process information – anonymously on request – about potential negative impacts on members of our own workforce. Rules of procedure for dealing with whistleblower information and complaints have been agreed by the Executive Board and govern the process, responsibilities, and rights of whistleblowers and the individuals concerned. The Compliance department follows up on every suspicious activity report or forwards it on to the competent departments for further investigation. If there is an initial suspicion, investigations are carried out, if necessary with external assistance, and a final report is drawn up. When rules are found to be violated, the causes are remedied; penalties apply when there is proven misconduct. This is decided by local management.

Further explanations of the individual process steps can be found in the Corporate culture and business conduct policies [G1-1] chapter, specifically in the Grievance management section and in the Protection of whistleblowers, and Incident investigation procedures section.

We use various channels and formats to inform our employees about the grievance procedures. These include onboarding, internal information and training events, the intranet, Knorr-Bremse guidelines, and notices. In addition, mandatory e-learning courses on the Code of Conduct describe possible reporting channels. The Compliance department monitors the development of reports in terms of type, number, and geographical distribution. This provides information on the level of awareness of the system and the trust placed in it by employees. In our employee survey, which takes place approximately every two years, we ask our employees to assess whether they can raise critical issues without fear of discrimination.

EMPLOYEE CHARACTERISTICS [S1-6]

2.32 AVERAGE NUMBER OF EMPLOYEES BY GENDER

	2024	2023
Total number of employees*	**29,051**	**29,487**
Male	22,604	22,639
Female	6,350	6,249
Unknown	97	599

* See in order to exclude fractional shares with the subscription rights..

2.33 NUMBER OF EMPLOYEES BY COUNTRY

	2024	2023
Germany	5,115	5,591
China	3,576	3,576
US	3,512	3,638
Hungary	3,052	3,025
Mexico	2,043	2,115
India	1,882	1,770
Czech Republic	1,815	1,855
Spain	1,398	1,309
Austria	1,108	1,105
UK	712	695
Brazil	694	673
Italy	638	632
France	590	609
Japan	554	627
Denmark	442	389
Poland	438	330
Australia	424	438
South Africa	272	262
Switzerland	187	219
Canada	120	115
Turkey	110	88
Sweden	105	116
Hong Kong	78	80
Thailand	58	66

2.34 NUMBER OF EMPLOYEES BY EMPLOYMENT CONDITIONS AND GENDER

	2024	2023
Permanent employees	**27,139**	**27,289**
Male	21,212	21,031
Female	5,830	5,663
Unknown	97	595
Temporary employees	**1,912**	**2,198**
Male	1,392	1,608
Female	520	586
Unknown	0	4
Employees without guaranteed working hours	**156**	**175**
Male	88	96
Female	68	78
Unknown	0	1
Full-time employees	**27,407**	**27,615**
Male	21,634	21,512
Female	5,677	5,518
Unknown	96	585
Part-time employees	**1,644**	**1,855**
Male	970	1,113
Female	673	728
Unknown	1	14

2.35 NUMBER OF EMPLOYEES BY EMPLOYMENT CONDITIONS AND REGION

	2024	2023
Total number of employees	**29,051**	**29,487**
Asia/Australia	6,628	6,613
Europe/Africa	16,054	16,333
North America	5,675	5,868
South America	694	673
Permanent employees	**27,139**	**27,289**
Asia/Australia	5,462	5,347
Europe/Africa	15,346	15,476
North America	5,643	5,794
South America	688	672
Temporary employees	**1,912**	**2,198**
Asia/Australia	1,166	1,266
Europe/Africa	708	857
North America	32	74
South America	6	1
Employees without guaranteed working hours	**156**	**175**
Asia/Australia	1	1
Europe/Africa	154	170
North America	1	4
South America	0	0
Full-time employees	**27,407**	**27,615**
Asia/Australia	6,619	6,596
Europe/Africa	14,461	14,528
North America	5,633	5,818
South America	694	673
Part-time employees	**1,644**	**1,855**
Asia/Australia	9	11
Europe/Africa	1,593	1,795
North America	42	49
South America	0	0

2.36 EMPLOYEE TURNOVER*

	2024	2023
Number of employees who have left Knorr-Bremse (number)	3,458	3,793
Employee turnover rate (%)	11.7	13.2

* Turnover reasons included: voluntary resignation, dismissal, retirement, and death

All figures are head count figures and refer to the end of the reporting period – that is, December 31, 2024. The figures on staff turnover are an exception. These apply to the entire reporting period – namely, from January 1, 2024, to December 31, 2024.

Permanent and temporary employees are differentiated according to whether they have a permanent or fixed-term employment contract. Employees without guaranteed working hours refer to people who work, for example, to cover seasonal requirements or other additional needs. They may be employed on a permanent or fixed-term basis.

INCIDENTS, COMPLAINTS, AND SEVERE HUMAN RIGHTS IMPACTS [S1-17]

We investigate complaints about potential human rights violations and take appropriate action where necessary. There were no serious human rights violations in connection with our employees during the reporting period. Table → 2.37

2.37 INCIDENTS AND COMPLAINTS

	2024	2023
Reported violations in the areas of social and human rights concerns (total number)	90	47
Reported cases of discrimination including harassment (number)	46	32
Complaints submitted to the OECD National Contact Point for Multinational Enterprises (number)	0	0
Total amount of material fines, sanctions, and compensation payments in connection with the incidents and complaints described above (€)	0	0

Employment conditions and personnel development

We want satisfied employees who value their working environment at Knorr-Bremse. Attractive working conditions promote the motivation and satisfaction of our employees, while targeted personnel development measures support their professional development and retain talent in the company in the long term.

MANAGEMENT APPROACH AND ACTIONS [S1-4]

We are convinced that we can create a productive and sustainable working environment for our employees and strengthen our competitiveness by making targeted investments in the areas of employment conditions and personnel development. When selecting and designing measures, we are guided by our global HR strategy, which is based on the targets defined in the BOOST strategy. In addition, dialog and feedback formats with our employees provide us with important insights for targeted measures to implement our HR strategy (see the Engaging with employees [S1-2] chapter). We also take external trends and changing developments in the HR market into account.

The Group's Human Resources department plans, manages, and monitors all overarching cross-company activities at Knorr-Bremse regarding our employees. The Global

Head of Human Resources bears the overall global HR responsibility and reports regularly to the Executive Board member for Integrity, Legal, IP, Data Protection, and Human Resources. Regional HR officers are responsible for implementing and supervising the measures in their respective regions. Local HR experts implement the central guidelines at their locations, taking local conditions into account.

The following measures help us to achieve positive impacts and mitigate material risks arising from the impacts on employees:

Adequate wages

Knorr-Bremse ensures that its employees around the word receive fair pay in line with the market. Salaries should be based exclusively on qualifications and performance. At the same time, we strive for internationally comparable remuneration. We intend to evaluate all job profiles according to a globally standardized system and compare them with benchmarks. We have currently implemented this for 79.8% of all employees. To help protect human rights, we are developing a Group-wide minimum wage register. All locations have confirmed in a survey that they comply with the local minimum wage. However, we pay the majority of our employees above the applicable minimum wage due to the qualifications required.

With the project “Balance”, we are introducing a new remuneration system at our German locations, the implementation of which started at the Berlin location in 2024 and is to be completed by 2026. Depending on the job position, it includes a variable salary component as well as optional, location-dependent additional benefits. Greater transparency and better comparability are to ensure performance-based remuneration in line with the market. With the introduction of the new remuneration system, we are reducing the standard working hours to 40 hours per week.

In addition to the regular remuneration, our employees can also receive additional benefits. These are paid voluntarily by Knorr-Bremse – in the form of financial payments or benefits in kind. These include, for example, quick financial support for employees in difficult life situations.

Another offer for employees is the Heinz Hermann Thiele share program, which was launched in September 2021. Once a year, eligible employees have the opportunity to purchase shares in Knorr-Bremse AG up to a fixed amount. The purchase is financially subsidized by the company. At the end of 2024, around 28,300 employees in 24 countries with at least six months’ service were eligible to participate. In the reporting period, 11% of eligible employees took part in the program.

Training and skills development

Qualified employees are a competitive advantage and an important basis for a company’s success. The strategic personnel development program at Knorr-Bremse is therefore aimed at promoting the continuous professional development of employees. The range includes qualification and training measures, primarily in the areas of social skills, languages, project and quality management, and technology and IT applications. With this diverse and comprehensive toolbox, we can tailor further development measures for employees to their individual needs, development requirements, and interests.

In the reporting period, we introduced our new global learning platform myLearning. It offers our employees a personalized training experience through a central access point. The learning platform offers around 2,000 courses, including e-learning and classroom training. We now combine all mandatory training and optional courses in one place.

Our own training courses are supplemented by the external self-learning tool LinkedIn Learning, which offers more than 20,000 courses on a wide range of work-related topics. In 2024, around 24,000 of our employees took advantage of the offering. They used a total of around 1,500 learning programs and received over 25,000 hours of training.

The results of the annual employee performance review (Staff Dialogue; from November 2024: Performance & Growth) are relevant for the professional and personal development of employees, among other things. The result of this annual review is an assessment of the employee’s individual performance and potential by their manager and a plan of development and possible further training measures. The format also provides insights into company-wide training needs, which are taken into account in the internal training program.

Another important task in the area of personnel development is to expand and strengthen the skills and abilities of managers. Good leadership is crucial for motivated, high-performing employees. All of our management development measures are based on the Leadership Principles introduced in 2023. They demand a strong role model function, open and inclusive leadership style, the ability to motivate and develop employees, expertise in cross-disciplinary collaboration, and a clear assumption of responsibility. A total of 339 people took part in our management training courses during the reporting period.

Leadership Feedback, in which team members evaluate their managers, provides insights into the leadership culture in practice within the company. The results serve as a basis for jointly developing measures to improve cooperation, to foster a more effective exchange between managers and team members, and to create a more open culture of feedback.

To generate a competent pool of managers and ensure forward-looking succession planning, we rely on potential analysis procedures (Development Center) and Group-wide management development programs (Management Potential Groups). In addition, Knorr-Bremse offers supplementary global and regional development programs.

A new component in personnel development is the Expert Career, the rollout of which began in Germany in 2024. It was developed as an equivalent alternative to the management career path in terms of an excellence model. With the Expert Career, we want to secure technical expertise in the company, strengthen innovative power, and promote sustainable growth. The visible recognition of outstanding expertise is also intended to strengthen employees' ties with the company.

Knorr-Bremse continues to place high value on training its own young professionals. This applies particularly to the specialist fields that are important for our company, such as industrial mechanics, machining technology, electronics, mechatronics, and IT. In 2024, a total of 291 young people completed an apprenticeship at Knorr-Bremse (2023: 294). In the area of academic training, especially in work-study programs, we cooperate closely with German and international universities.

Work–life balance

A good work–life balance is a decisive factor for the satisfaction of our employees. We take this into account in our New Work concept, which encourages agile and collaborative working. This includes comprehensive options for mobile working, flexible working hours, and online training opportunities. Supportive family and health programs complement this offering. Special financial assistance and contributions to health care and health insurance are also possible. Our locations implement the measures on their own responsibility and are guided by local requirements and the legal framework.

Six out of seven locations in Germany have been certified according to a *berufundfamilie* ("job and family") audit. This seal of quality stands for family-friendly working conditions and a family-conscious HR policy that also takes into account employees' different phases of life.

TARGETS [S1-5]

Our aim is to be an attractive employer. An important indicator of this is the "engagement index." This is determined regularly as part of the global employee survey. It is made up of responses on the topic of job satisfaction and the willingness to recommend Knorr-Bremse as an employer. Since 2024, the engagement index has been part of the target agreements for the long-term variable remuneration of managers at the top two management levels (see Compensation Report).

The target value for 2024 was 71 (target value 2022/2023: 71). The employees and workers' representatives were not involved in the target-setting process. The index was defined internally on the basis of benchmarks, taking industry trends into account. This value is reviewed annually and adjusted if necessary. Beyond this, we have not currently defined any other measurable, results-oriented targets for employment conditions and personnel development.

ADEQUATE WAGE METRICS [S1-10]

As part of our corporate responsibility, we are committed to ensuring fair and equitable pay for all our employees worldwide. Salaries should be based exclusively on qualifications and performance. Above and beyond our alignment with statutory minimum wage regulations, we strive to ensure that our employees receive an income that rewards their work and their contribution to the company appropriately.

In a separate survey, all locations have confirmed compliance with local minimum wages in accordance with local legal requirements. In all countries, the respective minimum level is already reached with the basic remuneration. If no local minimum wage is prescribed, we remunerate our employees at least in line with the peer group in other companies in the industrial sector. We ensure this wage level on the basis of regular market studies. However, we pay the majority of our employees above the applicable minimum wage due to the qualifications required. In addition, we regularly review whether our remuneration policy is in line with the current cost of living and market standards in currently 30 countries.

SOCIAL PROTECTION METRICS [S1-11]

For the most part, Knorr-Bremse employees are insured against loss of income due to sickness, unemployment, employment injury, acquired disability, parental leave, and retirement. In countries where this is regulated by law, cover is provided through state programs. In countries without corresponding statutory regulations, Knorr-Bremse has set up its own company programs. The following table lists countries in which our employees have limited social protection for the above-mentioned loss of income. Table → 2.38

2.38 COUNTRIES WITH LIMITED SOCIAL PROTECTION IN 2024

Loss of income from	Country
Sickness	-
Unemployment	India
Employment injury	-
Acquired disability	-
Parental leave	India
Retirement	-

TRAINING AND SKILLS DEVELOPMENT METRICS [S1-13]

2.39 PERFORMANCE REVIEW COVERAGE RATE

in %	2024
Performance review coverage rate*	**85.1**
Female	86.8
Male	84.9
Unknown	8.2

* Corresponds to the information on the proportion of performance reviews per employee. The coverage rate is influenced by the purchase of new companies (delayed system rollout) and new recruits in the second half of the year, as performance reviews are not held during an employee's first year. The relevant categories of people are not part of the performance review process, though they are included in the total number of employees.

The data basis for this information is the global performance management system. Employees who are to be involved in the regular performance review process receive a form assignment here. The coverage rate is calculated as follows: number of employees according to the S1-6 definition who have at least one form assigned; divided by the number of employees according to S1-6. The figures refer to the end of the reporting period (reporting date December 31, 2024).

WORK–LIFE BALANCE METRICS [S1-15]

All employees are entitled to family-related leave in certain situations (e.g., maternity leave, paternity leave, parental leave, leave to care for relatives). Table → 2.40

2.40 FAMILY-RELATED LEAVE ENTITLEMENT COVERAGE

in %	2024
Employees entitled to special family-related leave	90.9
Employees* who have taken special leave for family reasons	8.0
Female**	12.0
Male**	6.8

* Australia was not included due to legal limitations. The coverage rate includes 29 countries.
** As a percentage of the total number of eligible women/men

Diversity, equity, and inclusion

Diversity, equity, and inclusion (DEI) not only contribute to a better, non-biased working environment but are also key factors for global business success. This is underlined by objectives such as a more balanced gender distribution as well as concepts for intergenerational knowledge transfer and international exchange.

MANAGEMENT APPROACH AND ACTIONS [S1-4]

We have summarized our principles for diversity, equity, and inclusion in our Group-wide DEI strategy, which was approved by the Executive Board and Supervisory Board at the end of 2023. We began implementing it in 2024. The strategy defines three global focus topics: gender diversity, age and generations, as well as internationality. Further topics that are of local importance for the locations are defined and processed at the regional level. Our global DEI programs and their implementation are subject to compliance with the respective local laws and regulations of the countries in which our subsidiaries and branches operate and are reviewed on an ongoing basis.

The Diversity Office is responsible for implementing the DEI strategy. We have appointed six regional diversity champions for the regional implementation of the diversity measures. They also serve as points of contact for the approximately 78 local diversity champions who coordinate and implement activities at the locations.

Knorr-Bremse aims to further strengthen the culture of diversity and also to raise awareness among employees to advocate for employment equity for all employees. To this end, we offer training, conduct campaigns, organize events, and promote exchange among all employees. We provide training to ensure that all employees are aware of the importance of inclusion, equal opportunities and know how to recognize and respond to discrimination. In the reporting period, three training courses on Inclusive Collaboration and three on Inclusive Leadership were conducted worldwide. In 2024, we also rolled out a global e-learning program on inclusive collaboration, which is available in four languages (German, English, French, and Spanish). A total of 1,424 employees have taken part in these training programs so far. The Employee Resource Groups, whose establishment is supported by Knorr-Bremse, are a further initiative for equal opportunities and inclusion in the company. Our established HR processes also contribute to this topic with inclusive and equitable recruitment practices, flexible working hours and locations, and the promotion of open and transparent communication within the company:

- In 2024 we began analyzing the gender pay gap. The analysis serves as a basis for counteracting the gender pay gap and establishing equal opportunities and equal pay between genders (see the Compensation metrics [S1-16] chapter).
- In our hiring processes we always promote the best candidate. To further foster gender equality in our workforce, we aim to include at least one qualified female applicant for consideration in the final interview stage for management positions at levels 2 to 4. This is not a quota or final slate requirement. Rather, we are operating at the top of the talent pool and setting targets to ensure qualified female talent is considered for these management positions where applicable.
- Founded in Munich in 2022, the Women@KB women's network has now established itself in eight locations. All local networks are connected through an international community. In addition to training and development opportunities, the women's networks in Germany offer a mentoring program and networking events.
- Mentoring programs at the locations bring together employees with different professional, cultural, and personal backgrounds. These programs promote cross-departmental exchange, learning from colleagues, and the strengthening of internal networks.
- We want to expand our talent pool for technical professionals by collaborating with various initiatives and universities. For example, we participate in the mentorING program at the Technical University of Munich, in which female students of science and technology courses can participate.

To ensure Knorr-Bremse's future success, we need to promote the exchange of knowledge between generations and actively develop new talent. Our goal is to attain a healthy balance between younger and older employees. We wish to achieve this with the following measures focusing on the topic of age and generations:

- To retain older employees, we rely, for example, on partial retirement models or special further training offers.
- We want to use AI-based platforms to support the transfer of knowledge in succession processes and onboarding. In 2024, we started testing appropriate tools that store both formal and informal knowledge and can pass this on to our employees.
- By strengthening the employer brand, we want to remain attractive for both internal and external talent. An important component is the external approach to young professionals – for instance, at career fairs or through cooperation with universities and sponsorships with educational institutions. In addition, we invite potential talent to local events. An example of this is the annual Girls Day.
- Internal employer branding measures promote the engagement of our employees and strengthen their loyalty to the company. During the year under review, for instance, a two-day global hackathon was held, in which 56 colleagues from 11 countries participated. In this event, mixed teams from different fields tackled specific issues. Under the guidance of innovation experts, they developed and tested innovative solutions. They presented their results to a panel of Knorr-Bremse managers, who selected the best concepts for further development.
- In June 2024, employees founded the Generations@KB network. The members of the network work on a voluntary basis and ensure that younger and older employees in Munich can exchange ideas and network with each other in a targeted manner. The program is based on the needs and requirements of people in different phases of life. It offers activities such as reverse mentoring, discussion formats, network meetings, and job shadowing.

Internationality is the third focus of our DEI strategy and a central strength of our globally active Group. Accordingly, cultural diversity is deeply rooted in the corporate culture of Knorr-Bremse and represents an important success factor that we would like to continue to promote and expand in a targeted manner. In 2024, 83.9% of our workforce was employed at locations outside Germany. People with 117 different nationalities work for Knorr-Bremse worldwide. We promote international cooperation through intercultural training, language courses, cross-location projects, and stays abroad. For example, international exchange is an integral part of our Management Evolution Program (MEP). Here, trainees gain experience in international projects and work at a foreign location for at least six months. As a global player, Knorr-Bremse also sends employees on international assignments on a regular basis. These expatriates can work abroad for a period ranging from six months to five years in the process. There were 39 employees posted abroad in 2024 (2023: 52).

TARGETS [S1-5]

Our specific goal is to promote gender equality within our organization and therefore to increase the percentage of women in both the workforce and management. To this end, in 2022 we set global targets for the Knorr-Bremse Group: 25% of employees and 20% of management levels 1 to 4 by the end of the third quarter of 2027. The objective stated here is subject to local regulations and is reviewed on an ongoing basis. In 2021, when targets were set, the proportion of women among employees was 20.3% and 14.1% at management levels 1 to 4. In the latter case, we take into account both female managers and female employees who have embarked on an equivalent career path as experts (without their own management responsibility).

The targets defined in 2022 were set together with the Executive Board. Once a quarter, the Diversity Office reports to the Executive Board member for Integrity, Legal, IP, Data Protection, and Human Resources on the status of target achievement and the measures to achieve targets with regard to the proportion of women. The employees and workers' representatives were not involved in the target setting.

DIVERSITY METRICS [S1-9]

2.41 GENDER DISTRIBUTION AT THE TOP MANAGEMENT LEVEL (MANAGEMENT LEVELS 1 AND 2)

	2024		2023	
	Number	In %	Number	In %
Men	98	86.0	94	88.7
Women	16	14.0	12	11.3
Unknown	0	0.0	0	0.0

2.42 AGE STRUCTURE

Number	2024	2023
<30 years	4,213	4,299
30–50 years	17,761	17,597
>50 years	6,983	7,003
Unknown	94	588

The average age in 2024 at Knorr-Bremse was 41.8 (2023: 41.7). This will further increase due to demographic change in industrialized countries.

INCLUSION ON THE JOB METRICS [S1-12]

Employees with disabilities or health restrictions are a relevant part of the workforce at Knorr-Bremse. We have implemented various inclusion measures to provide accommodation and equitable access for people with disabilities. The disabled persons' delegation helps people with disabilities to find the right workplace for them in the company that is equipped according to their needs. The share of our employees who had a disability during the reporting period was 2.1% (of whom 0.6% were female and 1.5% male).

This data was collected and analyzed using a separate, manual query. The respective definitions of the countries were used. The countries Australia and Sweden were not included due to legal restrictions. Beyond that, the provision of this information is voluntary in other countries. The coverage rate includes 28 countries.

COMPENSATION METRICS [S1-16]

Salaries at Knorr-Bremse should only differ on the basis of employees' qualifications and performance. In 2024, the unadjusted gender pay gap at Knorr-Bremse worldwide was 10.3%. The average gross hourly earnings of male employees were thus above those of female employees by this percentage. The unadjusted gender pay gap does not consider structural factors such as age, job, function family, qualification, value of the function (grading), or location of the employees. The unadjusted gender pay gap thus provides no information on the extent to which equal work is paid unequally.

Knorr-Bremse has conducted a more in-depth analysis as part of its own fair pay project at German locations. This has identified the influencing factors of location, function family, and value of the function as additional remuneration drivers. The econometric model used produces an adjusted gender pay gap of <1% in Germany[9]. This figure was validated externally and supports Knorr-Bremse's fundamentally gender-neutral compensation policy.

The ratio of the total annual compensation of the highest-paid person in the company to the median total annual compensation of all employees (excluding the highest-paid person) at Knorr-Bremse is 83.6.

The data was collected using the local HR information systems.

Occupational health and safety

Key goals of our sustainability strategy are to create a safe working environment and to protect and promote the health of our employees. We consider this to be our responsibility toward each and every individual who works for us. Our measures and processes are designed with preventative occupational safety and effective health

[9] This is a voluntary disclosure calculated according to general standards.

management in mind and help to avoid work-related accidents. We also provide our employees with medical care.

MANAGEMENT APPROACH AND ACTIONS [S1-4]

Occupational health and safety management is defined in our HSE Policy and internal HSE processes, and is firmly anchored within our organizational structures. All processes and standards conform to the applicable laws as well as international standards such as ISO 45001, ISO 14001, and ISO 9001. System and process audits, HSE safety audits, facility acceptance audits, and regular location inspections help ensure that all of these requirements are met. In the Rail Vehicle Systems division, 50 production and service locations around the world are certified on occupational health and safety in accordance with ISO 45001 (2023: 50). This corresponds to a coverage of 37% of our workforce. At locations that are not externally certified but have implemented our corporate management systems (Rail Excellence [REX] at RVS, Truck Excellence [TEX] at CVS)[10], we verify compliance with our internal processes and standards through internal audits.

Overall responsibility for occupational health and safety lies with the Executive Board. The central HSE departments of our divisions develop strategic guidelines and coordinate them with all locations. At the local level, HSE specialists see to all activities related to occupational health and safety and assist management with their implementation.

They define location-specific emergency preparedness and response plans that regulate procedures in the event of potential emergencies. In addition, the local HSE officers manage the occupational safety processes at the location and, in particular, assess the risk of injury and accident posed by production facilities, workplaces, and processes. Incidents are followed up by a cause analysis by our HSE specialists, who implement suitable processes or safety and protective measures to remedy the situation. For example, incidents and accidents involving forklifts were significantly reduced at our location in Bowling Green (US) during the reporting period. This was achieved by reorganizing the transport system and the routing within the production area.

We are continually working to improve occupational health and safety across the Group. Regular activities and measures help to heighten our employees' safety awareness. These include internal training, location-specific safety activities, informational campaigns, regular occupational safety meetings, and specially prepared reports. Divisional global HSE meetings are held annually to facilitate a Group-wide exchange. They are supplemented by cross-divisional events and meetings at a national and regional level.

In the CVS division, the European safety@work program to assess the safety culture was continued in the reporting period and specific improvement measures were implemented at the locations in Aldersbach (Germany), Kecskemét (Hungary), and Liberec (Czech Republic). The program's goal is to evaluate management, organization, and processes regarding their contribution to the safety culture by means of employee surveys as well as on-site audits and to implement resulting local action plans. It is to be gradually expanded at our European locations.

Our occupational health management encompasses the areas of mental risk assessment, ergonomics management, workplace health promotion, employee support programs, and health protection. To guide us in our occupational health management activities, we have introduced the Health Performance Index (HPI). This index defines minimum requirements for the individual measures and assesses how well they have been implemented. On this basis, we are able to identify areas for improvement and define best practice examples that can be shared between locations. The index, initially only used in Germany, has also been used by other European locations since 2024.

Our locations offer a variety of illness prevention and health promotion measures in line with local requirements. Among these are seminars, sports programs, and medical care services. For example, employees in the Americas region can take courses on health-conscious behavior and receive a discount on their health insurance. In addition, we offer gyms at all American locations and hold regular health days with various activities such as health checks. In the UK, trained individuals known as Mental Health First Aiders are on hand to provide first aid in the event of mental health issues and crises. At our German locations and in the Americas region, the program *mein EAP* (Employee Assistance Program) offers support and advice in personal crisis situations. Both employees and their family members can turn to this psychosocial counseling service in phases of crisis caused by either work or health issues. Various internal communication channels provide information about *mein EAP*. Based on the number of users, it is clear that the program has been well received by employees. In addition, the autonomous learning tool LinkedIn Learning offers a series of courses on health protection, resilience, and stress prevention.

[10] Coverage rate among employees around 90%.

TARGETS [S1-5]

Our goal is to prevent work-related accidents as far as possible. To this end, we measure the number of work-related accidents per 200,000 contractual working hours. The Group-wide target for 2024 is 0.8. This metric is also a factor in our variable management remuneration (see Compensation Report). In addition, the HSE management systems at our various locations comprise individual targets for improving occupational health and safety.

The Group's occupational health and safety targets are set by the global HSE officers and the Executive Board. The locations are also involved in this process through regular subject-specific discussions. Our global targets are broken down to the individual locations and communicated to the local HSE managers, who first assess the current occupational health and safety status at their location and then define specific measures needed to achieve these targets. Location managers are involved in both the review and the target-setting process and are supported in all matters by the local HSE organization.

OCCUPATIONAL HEALTH AND SAFETY METRICS [S1-14]

2.43 OCCUPATIONAL SAFETY

	2024	2023
People in own workforce who are covered by Knorr-Bremse's health and safety management system based on legal requirements and/or recognized standards or guidelines (%)	100	100
Fatalities as a result of work-related injuries and work-related ill health among Knorr-Bremse's own workforce (number)	0	0
Fatalities as result of work-related injuries and work-related ill health among other workers working on Knorr-Bremse's locations (number)	0	0
Recordable work-related accidents (number)	249	216
Number of reportable work-related accidents per 200,000 contractually agreed hours of work	0.7	0.7
Number of reportable work-related accidents per 1 million contractually agreed hours of work	3.5	3.3

Workers in the value chain [S2]

Knorr-Bremse also aims to fulfill its human rights and occupational safety obligations when it comes to workers in the upstream and downstream value chain. Based on a risk-based approach, we verify that our partners ensure fair working conditions, treat all employees equally and offer them equal opportunities, and also respect their employees' other labor-related rights. Wherever possible, we support them in implementing optimization measures in these areas. We also actively raise awareness of sustainability among our suppliers and business partners.

Material impacts, risks, and opportunities [SMB-3]

2.44 WORKERS IN THE VALUE CHAIN: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Negative impact (medium-term)	Human rights	Poor working conditions can adversely affect the human rights of employees in the upstream value chain and violate legal regulations
Positive impact (short-term)		By actively implementing a supplier standard in the upstream value chain, we can help ensure that suppliers respect human and labor rights in their operations and promote the well-being of workers in the supply chain – for example, through fair labor practices and safe working conditions
		Establishment of long-term business relationships that contribute to sustainable economic development in the supply regions and promote job creation and public welfare while reducing risks in the supply chain
Risk (medium-term)		Possibility of fines or exclusion from tenders as a result of ignoring violations or breaching human rights due diligence obligations in the upstream value chain

Knorr-Bremse is aware that its business activities along the value chain can have both potential negative impacts and actual positive impacts on workers. Part of our strategy and business model is therefore to integrate sustainability aspects into the supply chain with the aim of minimizing the risk of human rights violations and promoting fair working conditions for workers in the supply chain. To this end, we have defined clear sustainability requirements that are based on our internal commitments as well as legal requirements such as the German Supply Chain Due Diligence Act (LkSG). The processes and measures we have in place enable us to monitor and evaluate compliance with these requirements, thus also helping our partners to fulfill their due diligence obligations. This allows us to build long-term business relationships that contribute to sustainable economic development in the supply regions while also reducing risks in the supply chain. In addition, our management approach minimizes business risks for us, such as the risk of being fined or excluded from tenders due to a violation of human rights due diligence obligations.

As part of its analysis of potential impacts, risks, and opportunities, Knorr-Bremse includes employees in its upstream and downstream value chain. In addition, workers who do not belong to our own workforce but who work at our locations are considered, as well as those who work for joint ventures in which Knorr-Bremse is involved.

We learn about potential human rights-related risks in the supply chain in particular from the risk analyses we conduct in accordance with the LkSG. In these analyses, we assess potential risks associated with our direct suppliers based on external sources of information on procurement categories, country risks, and the potential extent of damage. We take a particularly close look at raw material supply chains or geographic areas where there is a widespread or systemic risk of child or forced labor. On this basis, Knorr-Bremse has identified a heightened potential risk in the reporting period in the regions of Africa (South Africa), Asia (China, India, and Vietnam), Latin America, and eastern Europe, including Poland, Romania, and Turkey. Metal processing and electronics have been identified as particularly risk-prone areas, meaning that these countries and industries expose blue-collar workers and employees at the lower levels of the value chain to greater potential risks. By comparing this data with our suppliers' sustainability ratings, we create risk profiles and derive risk mitigation measures. One example of this is the conflict minerals management system that we introduced for a particularly vulnerable group (see the Management approach and actions on value chain workers [S2-4] chapter). No material negative impacts related to individual incidents or specific business relationships were identified.

Policies related to value chain workers [S2-1]

Knorr-Bremse has outlined its expectations regarding fair working conditions, equal treatment, and equal opportunity, as well as compliance with other labor-related rights, in a set of binding policies. The following policies apply to all employees in the upstream and downstream value chain.

The Supplier Code of Conduct sets out our requirements with regard to working conditions, human rights, environmental protection, safety, business ethics, and compliance. Not only do we expect our suppliers to comply with this code themselves, we also require them to implement it in their upstream supply chain. Furthermore, the code describes how Knorr-Bremse intends to ensure compliance with the outlined principles and which whistleblower and complaints mechanisms suppliers can use in the event of violations (see the Remediating negative impacts and channels [S2-3] chapter). The Human Rights Policy sets out in detail the principles and expectations regarding respect for human rights. The policy explicitly covers the topics of forced labor, modern slavery, human trafficking, and child labor.

It is supplemented by the Responsible Minerals Sourcing Policy (until 2024 known as the Conflict Minerals Policy), which governs how we deal with conflict materials. This policy is binding for all our suppliers who process or market relevant materials. The appendix to the Sustainability Statement includes a table summarizing relevant details of Knorr-Bremse's policies in accordance with the ESRS Table → 2.53.

Involvement of workers in the value chain [S2-2]

Knorr-Bremse's processes for minimizing the impact of its business activities also take into account the perspectives of workers along the value chain. Some of the ways in which we gather their input include direct communication, regular supplier audits conducted by Knorr-Bremse or external experts, as well as training programs. We decide on the best way to engage with workers on a case-by-case basis. Such engagement can take place while we are onboarding new suppliers or in the course of our existing supplier relationships. The supplier risk profile that we create plays a crucial role in this context (see the Management of relationships with suppliers [G1-2] chapter). Moreover, Knorr-Bremse has established grievance mechanisms to record and systematically process worker concerns regarding human rights due diligence. Overall responsibility for measures aimed at direct engagement with our suppliers' workers lies with the global purchasing organization, while the Sustainable Purchasing department is responsible for implementing these measures. The Group Human Rights Officer and the Compliance department also help investigate incidents reported via our grievance management system.

We evaluate the effectiveness of our engagement on the basis of metrics such as the number of reported incidents as well as improvements in our audit results and direct feedback from suppliers.

On-site visits to suppliers provide us with direct insights into the situation of vulnerable groups in the value chain. In the course of these visits, independent experts conduct special sustainability audits during which they interview employees of our suppliers or their representatives to verify that workers' rights are being respected. Moreover, Knorr-Bremse has integrated sustainability aspects into the company's own supplier visits. Knorr-Bremse auditors are trained to check for and identify sustainability risks on site with the help of checklists.

Through our project work in industry associations, we gain further insights into systemic human rights violations in the supply chain. As active members of industry initiatives such as the Responsible Minerals Initiative, Railsponsible (RVS supply chain), Automotive Industry Dialog (AG), and Drive Sustainability (CVS supply chain), we work together with customers, competitors, and other stakeholders to improve sustainability standards in the supply chain.

Remediating negative impacts and channels [S2-3]

Knorr-Bremse wants to ensure that suppliers follow the principles set out in our Supplier Code of Conduct. Our Supply Chain Management team therefore screens and rates suppliers with regard to their human rights due diligence obligations – for instance, by means of audits, media analyses, and assessments and by incorporating sustainability risks into the supplier selection process (see the Business conduct [G1] chapter). We also take active action against policy violations that are reported to us via the channels provided. Any negative impacts of our business activities identified as a result will be minimized or remedied by means of targeted measures.

Our expectations with respect to grievance procedures are set out in the Supplier Code of Conduct. Suppliers are required to provide their employees and stakeholders with the opportunity to report concerns or violations of our policy without fear of retaliation. To this end, we advise suppliers to set up their own whistleblower system or to join an industry-wide system. We also ask them to inform their employees about the Knorr-Bremse whistleblower and grievance system.

Knorr-Bremse's publicly accessible whistleblower system can be used to report possible human rights violations anonymously. In addition, violations of the Code of Conduct may also be reported to our compliance contact persons by email. Details of these complaints channels are provided in our Code of Conduct, our Human Rights Policy, and on our website. There is no systematic review at Knorr-Bremse to determine whether supplier employees are familiar with our whistleblower system. The reporting process and the relevant procedural rules, such as rules on the protection of whistleblowers, are described in more detail in the Corporate culture and business conduct policies [G1-1] chapter.

We expect our suppliers to immediately report to Knorr-Bremse any violations of the standards set out in the Code of Conduct, as well as to document and subsequently remedy such violations. Should our business activities have harmed or contributed to harming an employee of a supplier, we offer our support in determining effective remedial action. Knorr-Bremse reserves the right to review suppliers or to carry out audits to ensure that remedial action has been taken. If the supplier does not adequately address the issue within a reasonable period of time, Knorr-Bremse will consider terminating the business relationship.

Management approach and actions relating to value chain workers [S2-4]

We are systematically expanding our processes for the observance and protection of human rights in the supply chain. At Knorr-Bremse, the Executive Board and the management teams of the subsidiaries share responsibility for the implementation of human rights due diligence. Upon the LkSG coming into force, the Executive Board specified the responsibilities for human rights risk management and delegated them to the competent departments. The Human Rights Officer in the Compliance department monitors compliance with the requirements of the LkSG in the Group and reports regularly on this to the Executive Board. At the operational level, measures are implemented by the departments. The strategy for continuously improving sustainability performance in the value chain is integrated into Knorr-Bremse's global purchasing processes. We ensure that our suppliers implement and apply the sustainability standards through various measures, including assessments, audits and training, as well as contractual obligations. For details, see the Management of relationships with suppliers [G1-2] chapter.

In the reporting period, we continued to analyze human rights risks in our supply chain and in our own business areas in accordance with legal requirements (see the Material impacts, risks, and opportunities [SBM-3] chapter). On this basis, we identify suppliers with a potentially elevated risk profile and derive appropriate measures. For example, in the reporting period, we asked 496 suppliers to sign our updated Supplier Code of Conduct and to have their sustainability performance reevaluated. This equates to 20% of suppliers. For selected, high-risk suppliers, we develop customized improvement plans based on their sustainability ratings. Our aim is to train and actively involve suppliers in sustainability issues. The effectiveness of our measures is determined by improving external sustainability ratings. In 2024, the average sustainability score of our at-risk suppliers increased by 8.2%.

We also carried out ad hoc risk analyses in the reporting period. We review media reports, for instance to find out whether fines or penalties have been imposed on our business partners, or whether environmental breaches or human rights violations have been committed at their locations. If any breaches or violations relevant to our company or our business are identified, we determine to what extent our direct or indirect suppliers are involved. In 2024, none of the reports reviewed in this way revealed any involvement or contribution on the part of Knorr-Bremse to the violations or breaches in question. Further measures to counteract these risks or adjust our risk management were therefore not deemed necessary. We also follow up on reports made. During the reporting period, one case of an alleged link between Knorr-Bremse and human rights violations in the downstream value chain was reported. However, this could not be confirmed by Knorr-Bremse.

We have implemented a special due diligence process for the protection of human rights in the area of conflict minerals. The central tools for managing and reporting conflict materials are our company-wide Responsible Minerals Sourcing Policy and supplier questionnaires. As recommended by the Responsible Minerals Initiative, we ensure transparency in the procurement process for minerals from conflict or high-risk areas, such as tin, tantalum, tungsten, and gold ("3TG"). In an annual survey, we ask direct suppliers with 3TG relevance for information on the origin of the minerals used using the Conflict Minerals Reporting Template (CMRT). More than 85% of our purchasing volume was covered by the most recent survey. It identified 38 (2023: 38; 2022: 24) smelting plants that were classifiable as critical. These companies do not meet the requirements of the list of compliant smelting plants and refineries, which is why we have asked them to undergo an independent audit and join the Responsible

Minerals Assurance Process (RMAP). RMAP audits establish whether a supplier's business practices, management systems, and values align with the key principles of responsible sourcing. In 2024, we asked those suppliers who do not carry out an RMAP audit to divest themselves of high-risk smelters or refineries. To ensure due diligence in the cobalt and mica supply chain, we collect relevant information with the aid of the Extended Minerals Reporting Template (EMRT). During the 2024 campaign, we asked 1,314 suppliers to complete the questionnaire. Table → 2.45

2.45 REPORTING OF CONFLICT MINERALS*

	2024	2023
Number of suppliers invited to take the CMRT survey	1,314	2,160
Response rate of surveyed suppliers in relation to number of suppliers (%)	60.0	68.0
Share of purchasing volume from surveyed suppliers in procurement expenditure (%)	87.4	74.4
Response rate of surveyed suppliers in relation to procurement expenditure (%)	74.8	87.4

* The figure for 2023 relates to the percentage of suppliers who have provided us with information on the use and origin of conflict minerals in the June 2023-April 2024 reporting period. The figures for 2024 represent an interim status for the period from August 2024 to February 2025. The current data collection process will end in April 2025.

Targets related to value chain workers [S2-5]

Knorr-Bremse has defined targets with the aim of continuously improving its suppliers' sustainability performance. For example, we aim to steadily increase the share of suppliers that have a sustainability rating and, in collaboration with our suppliers, to gradually improve their individual assessment results and thus their risk profiles (see the Management of relationships with suppliers [G1-2] chapter). When setting targets, we take into account findings from previous supplier assessments, feedback from industry initiatives, and exchanges with relevant stakeholders. With a view to achieving our targets, we explain the relevance of a sustainability assessment to our suppliers, encourage them to participate, and support them throughout the process. We also use the findings gained from these ratings to continuously optimize and enhance the process. Knorr-Bremse has not defined any further quantitative targets regarding workers in the value chain.

Business conduct [G1]

Knorr-Bremse implements responsible business practices and principles in its corporate governance. A trustworthy corporate culture is just as important as comprehensive compliance management in this context. We take responsibility along the value chain by integrating sustainability aspects in our supplier and customer management.

Material impacts, risks, and opportunities [SMB-3]

2.46 BUSINESS CONDUCT: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Positive impact (short-term)	Corporate culture and business conduct	Promoting a high level of transparency, accountability, an ethical corporate culture, and integrity at all levels in our own operations to ensure compliance with laws, regulations, and standards
		An innovative company that encourages and empowers employees to design creative solutions. This is particularly important in the mobility industry given the large steps it takes in development and customer requirements
		A resilient company capable of overcoming challenges with flexible solutions
		A diverse company that embraces a variety of cultures and characters as well as different perspectives and ways of thinking. This is a key requirement for being an employer of choice and achieving a high level of innovation
		An attractive employer that gives all employees a sense of purpose, from the young generation to experienced professionals
Risk (medium-term)	Compliance	Fines, exclusion from tenders, confiscation of assets, or compensation payments as a result of corruption, money laundering, or other compliance violations
Negative impact (medium-term)	Corruption and bribery	Loss of trust in the rule of law and in state institutions due to bribery of public officials or undue influence on them
		Obtaining unfair competitive advantages and damage to competitors through corruption and bribery
Positive impact (short-term)	Protection of whistleblowers	Active promotion of a vibrant speak-up culture in which grievances, criticisms, and complaints can be expressed freely without fear of reprisals
Positive impact (short-term)	Management of relationships with suppliers	Prioritization of suppliers committed to sustainability, quality, ethical business practices, clear and transparent communication between the company and its suppliers, as well as long-term relationships, results in a more resilient supply chain, lower procurement risks, and better collaboration with suppliers
Positive impact (short-term)	Payment practices	Proactive compliance with contractual payment terms and stringent risk management promote financial stability, support ethical conduct, and strengthen sustainable practices among suppliers
Risk (medium-term)	Human rights	Potential fines or exclusion from tenders in the company's own area of business due to ignorance or breach of human rights due diligence obligations

Business conduct policies and corporate culture [G1-1]

Knorr-Bremse focuses on good and sustainable corporate governance in its activities, adhering to applicable law and ethical rules and strengthening the reputation of the company. We aim to create trust in Knorr-Bremse among our employees, customers and business partners, shareholders, in the capital market and in the public sphere. It is extremely important to us to live the principles of integrity and respect. We expect this from our managers, as well as from all employees, business partners, and suppliers.

Our targets and activities are always aligned with our corporate values: entrepreneurship, technological excellence, reliability, passion, and responsibility. These five values guide our daily actions and dealings with our various stakeholders.

We align our business activities with the requirements of our compliance management, guided by our aspiration to comply with laws, internal regulations, and voluntary commitments. The Code of Conduct applicable to employees throughout the Group includes our compliance requirements regarding the entire value chain. It is based on our corporate values and the principles of the UN Global Compact and defines our maxim of responsible business conduct – within the company and with our external stakeholders. In addition, the Code of Conduct prohibits all forms of corruption. The principles and rules contained therein are binding for all employees of the Group. They are accessible within the company and to the public and are a component of the written employment contracts for new employees around the world. Our requirements are set out more specifically in our compliance guidelines, which cover the following topics we consider important: handling gifts, invitations, donations and sponsoring, preventing corruption, dealing with conflicts of interest, screening business partners, preventing money laundering, meeting human rights due diligence obligations, and ensuring fair competition.

The principles and expectations regarding respect for human rights laid down in the Code of Conduct are set out in more detail in the Human Rights Policy. The main themes of this policy are the ban on child and forced labor, equal treatment of all employees, the right to health and safety in the workplace, and freedom of association. Our Human Rights Policy is based on the Internation Bill of Human Rights, the UN Guiding Principles on Business and Human Rights (UNGPs), the Ten Principles of the UN Global Compact, the ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up, the OECD Guidelines for Multinational Enterprises and the OECD Due Diligence Guidance. It simultaneously serves as a statement of principle as required by the German Supply Chain Due Diligence Act. Detailed information can be found in the Role of the administrative, management, and supervisory bodies [GOV-1] chapter.

Corporate culture is a key mainstay of responsible conduct, and is subject to constant refinement by Knorr-Bremse. It is intended to help employees to identify more closely with the company and thus contribute to its business success. A motivated, dedicated team helps Knorr-Bremse maintain its innovative edge, respond flexibly to challenges, incorporate a wide range of perspectives, and remain an attractive employer for employees of all generations.

Establishing our vision of leadership newly defined in 2023 was a focal point of Knorr-Bremse's cultural change in the reporting period. The vision was reformulated and laid down in Leadership Principles applicable worldwide. One core aspect is employee empowerment, which means reinforcing our employees' independence and promoting autonomous decisions and actions. The requirements for this include fostering a speak-up culture based on trust. It is important to us to create a working environment that allows our employees to address sensitive issues – safe in the knowledge that their feedback is appreciated and will be treated with respect. We are communicating our new leadership vision to our managers through workshops and refining their skills using a 'leading by example' approach. Further information can be found in the Management approach and actions [S1-4] chapter.

In pursuing its aim of constantly advancing cultural change and creating a pleasant working environment for staff, it is important for Knorr-Bremse to know how employees perceive the corporate culture in their day-to-day work. To glean this information directly from our employees, we have introduced platforms and dialog formats such as Leadership Feedback, the annual performance review, and regular global employee surveys. The results obtained from these platforms and formats drive our efforts to implement targeted improvements (see the Engaging with own workforce [S1-2] chapter).

The high value we place on employee satisfaction at our company is also reflected in its inclusion in senior management objectives. As of 2024, target achievement for long-term variable remuneration (long-term incentive, LTI) for management levels 0 to 2 (Executive Board, Management Boards, heads of department) at Knorr-Bremse also depends on employee satisfaction.

COMPLAINT MANAGEMENT AND WHISTLEBLOWING SYSTEM

Knorr-Bremse's compliance management seeks to ensure compliance with laws, internal regulations, and voluntary commitments. Thanks to its established complaint management system, Knorr-Bremse can record possible compliance breaches and pursue them systematically. Employees, business partners, and external individuals can report information on any possible compliance breach to the compliance organization through various channels: email, directly through the compliance organization, or online through an independent and anonymous whistleblower system. This globally accessible portal is provided by an external service provider and allows information on potential compliance violations to be submitted in 31 countries and 20 languages. The system also enables protected communication for whistleblowers who prefer not to reveal their identity.

In addition, the internal Incident Notification and Alarm Services (INAS) system is used for personalized reporting of time- and safety-critical events and incidents from the areas of data protection, information security, and Group security. Events classifiable as critical reach the responsible area of the Group directly via the system.

PROTECTION OF WHISTLEBLOWERS AND INTERNAL INVESTIGATION PROCEDURES

Both our Code of Conduct and the rules of procedure on internal investigations agreed by the Executive Board contain express requirements on the protection of whistleblowers. The rules of procedure govern not only the course of action and the responsibilities involved, but also the rights of whistleblowers and the persons implicated. Key principles include the protection of whistleblowers from disadvantages, the fairness and confidentiality of the process, the independence of investigations and the safeguarding of data privacy. The involvement of stakeholders was set out and described in an agreement with the Group Works Council which anchors information and details on employee surveys, analysis of electronic media, and involvement of the Works Council.

These provisions are in line with the statutory requirements, specifically Directive (EU) 2019/1937 and the national implementing legislation, as well as the German Whistleblower Protection Act. Any retaliation against the whistleblower as a result of submitting a report in good faith is expressly prohibited, even if the report or complaint is ultimately unfounded. This antidiscrimination policy applies to the company's own employees and external parties. It does not apply if a report or complaint is made against better judgement or in gross negligence with the objective of bringing another person into disrepute, subjecting them to criminal prosecution, or otherwise inflicting damage. Nor does it apply if the complaint or report is made against better judgement with the aim of averting any pending and justified disciplinary action. The antidiscrimination policy does not provide protection from criminal prosecution by the authorities, either.

In practical terms, the whistleblower is additionally protected by the option to submit anonymous reports via the online portal.

We provide details on complaint management and the whistleblowing system through internal information and training events, on the Group-wide intranet, and in the e-learning courses on our Code of Conduct. The Knorr-Bremse website additionally provides clear and readily understandable information on how to access the whistleblowing system as well as on responsibilities and the complaints process. The internal rules of procedure are also available on the website. The complaints procedure is explained directly on the whistleblowing system platform under "FAQ" (frequently asked questions).

We follow up on every report as quickly as possible and forward it to the relevant departments for further clarification. Where an initial suspicion is substantiated, investigations are carried out. Legally permissible sanctions are taken if a breach of rules is determined or misconduct is proven.

The internal rules of procedure set out that nobody who has or could appear to have a vested interest in a certain outcome of the process is permitted to be involved in an investigation or decision concerning the consequences. The reasons for this may be close relationships to the persons affected by the investigations or allegations affecting the party's own area of responsibility. Potential conflicts of interest must be disclosed without delay. Where conflicts of interest are suspected, the affected persons must not receive any information on the progress of the process in case this puts the investigation at risk.

The persons tasked with the investigation are functionally independent in accordance with our rules of procedure. They are not subject to any general or specific instructions that may exclude or hamper independent determination and analysis of the facts. They determine both the objective of the investigation and the procedure independently.

To ensure that the whistleblowing and complaints system is independent and unbiased, responsibility for it lies with the Group Compliance department.

The Executive Board receives regular information on reports received, the results of investigations, and the actions taken.

PREVENTION THROUGH TRAINING AND COMMUNICATION

To prevent compliance breaches, Knorr-Bremse relies on transparent communication and training. In the context of leadership development, for example, the new leadership guidelines illustrate how a well-developed speak-up culture can strengthen compliance throughout the company (see the Management approach and measures [S1-4] chapter). We developed a global e-learning course in 14 languages on our Code of Conduct for employees with Internet access, which must be completed every two years.

A further e-learning course on corruption prevention is aimed at employees in purchasing and sales and at managers, as we see an increased risk in these areas due to contact with external business partners and the responsibilities involved. Employees from these divisions are also required to complete these courses every two years. In December 2024, around 90% (2023: 98%) of the 16,000 employees with access to e-learning platforms (approximately 47% of the entire workforce) had a valid certificate for the training on the Code of Conduct. For anti-corruption training, 3,497 employees were identified as being in at-risk functions and enrolled in the training. Of them, roughly 94% (3,296) had obtained a valid certificate by the end of December 2024.

In addition to e-learning courses, live training (in person and webinars) is held for employees on specific compliance content and our guidelines and tools, such as the whistleblower system. In 2024, 75 such compliance training courses were held globally (2023: 77).

Management of relationships with suppliers [G1-2]

To live up to our self-image as a sustainable company, we are committed to assuming responsibility along the entire value chain. Strategic Purchasing seeks to lay the foundation for reliable, efficient, and sustainable Knorr-Bremse products by selecting the right suppliers and materials.

As a global group, we work with a large number of predominantly local suppliers. Each year, we purchase products and services from approximately 30,000 suppliers in 67 countries. They include roughly 6,500 partners for the manufacturing and production of parts, components, and materials for our products; just by themselves, they account for 73% of procurement spending. The purchased products primarily contain metals, friction components, electronic components and plastics, with the proportion of raw materials purchased by us being low.

Our strategy for sustainable procurement is embedded in purchasing processes across the Group. The purchasing managers for direct and indirect materials are responsible for its implementation. Compliance with and optimization of sustainability standards in the supply chain are supported by experts at Group level. The Sustainable Procurement Steering Committee – comprising the heads of our global purchasing units and the Sustainability department – discusses and decides on strategic and current sustainability topics several times a year. Our procurement is associated with significant impacts on the environment and society in production countries, so we aim to work with our suppliers to improve sustainability in the supply chain and minimize risks. Our approach is based on three pillars: determining our sustainability requirements, evaluating and assessing them, and training suppliers and purchasing employees.

GUIDELINES AND SUSTAINABILITY REQUIREMENTS

Knorr-Bremse set out its commitment to sustainability in the supply chain in its Group-wide Code of Conduct. We also expect our suppliers to act in line with our values and international environmental and human rights standards. These include the principles of the UN Global Compact, the International Labour Organization (ILO) conventions, and the UN Universal Declaration of Human Rights. These principles are specified and defined in our Code of Conduct for Suppliers, our Human Rights Policy, the Conflict Minerals Policy, and our Quality Guidelines.

Our Group-wide Code of Conduct for Suppliers is intended to promote and require the systematic inclusion of sustainability aspects in the production methods and conduct of our suppliers. It sets out the standards our suppliers are required to meet with respect to working conditions, human rights, environmental protection, safety, business ethics and compliance. We expect our suppliers to comply with the code and implement it in their upstream supply chain. The binding code is available in 16 languages and is an integral component of all supplier contracts. The Knorr-Bremse Human Rights Policy additionally sets out our expectations in terms of respect for human rights.

Process descriptions and guidance provide an overview of the sustainability criteria and management approaches that we incorporate into the global purchasing processes. Internal guidelines specify the extent to which sustainability aspects are to be taken into account in purchasing decisions for various categories, including renewable energy, business travel, energy-efficient products, equipment, and services.

SUPPLIER SCREENING AND EVALUATION

We use various measures such as assessments, audits, training and contractual commitments to ensure that our suppliers implement and apply the sustainability standards. For instance, external service providers with industry experience carry out sustainability assessments on a continuous basis and evaluate the suppliers' sustainability management. The criteria for the selection of suppliers for this assessment are purchasing volume, classification as a new or preferred supplier, and the ESG risk profile. We determine our suppliers' ESG risk profiles by means of the external CSR Risk Check tool, which assesses potential sustainability-related risks associated with certain business activities. We currently have a valid sustainability assessment for roughly 3,500 suppliers. This equates to a coverage rate of 76% of our global purchasing volume. Our target rate is 75% in 2025, as numerous existing certificates will expire in this year and need to be reassessed. Table → 2.47

2.47 SUSTAINABILITY ASSESSMENT OF SUPPLIERS

	2024	2023
in % of purchasing volume	75.9	70.7

We use the findings from the sustainability assessments to categorize our suppliers. Based on the individual assessment results, we classify our suppliers into fixed categories. We have restructured the classification levels and rating ranges from the previous ABC spread to ABCD, to ensure a measurable continuous improvement of our supplier's sustainability practices. Category D represents the level with the potentially highest sustainability-related risks, with the respective upper score level for the D range now higher than it was for C in previous years. We aim to continually reduce the share of suppliers in category D. To this end, we draw up action plans for improving sustainability performance with the suppliers in question. Knorr-Bremse sees two options for suppliers in category D: either they demonstrably improve their sustainability performance, or we gradually relocate the purchasing volume allocated to them to other suppliers. The new classification is also linked to our Sustainability-linked Supplier Early Payment Program (S.E.P.P.).

As a supplement to these sustainability assessments, we conduct risk analyses of our suppliers in the areas of human rights (see the Remediating negative impacts and channels [S2-3] chapter) and physical climate risks (see the Material impacts, risks, and opportunities [E1-SBM-3] chapter).

We also audit and assess suppliers' sustainability performance in supplier visits and external audits. Our Supplier Development department uses a specific checklist to assess sustainability-related risks when visiting suppliers (On-Site Risk Checker). During these supplier visits, Knorr-Bremse employees are required to evaluate and document sustainability matters such as human rights, occupational health and safety, and environmental management. Since 2024, this checklist has also included questions about suppliers' decarbonization strategies. The results help us to decide whether additional local audits or other further investigations are necessary. Independent experts also perform sustainability audits of suppliers, which include determining the extent to which they comply with international social and environment standards. These are based on guidance from the Responsible Business Alliance, Initiative Together for Sustainability and the UN Global Compact. A total of 18 on-site audits were conducted in 2024, of which 4 were follow-up audits. The selection criteria for these audits include the purchasing volume at each location and the results of human rights risk analyses and relevant sustainability assessments. If an audit or a sustainability assessment reveals breaches or improvement potential, Knorr-Bremse develops and implements action with its suppliers and conducts follow-up audits. The audit results also help us identify potential sources of risk that we need to pay particular attention to in our supplier management in the future.

CONSIDERATION OF SUSTAINABILITY CRITERIA WHEN SELECTING SUPPLIERS

We take account of suppliers' sustainability assessments in our contract award process. In the CVS division, the sustainability assessment and signing of the Supplier Code of Conduct are also taken into account by the Sourcing Board, the review and decision-making body for supplier orders. In the RVS division, preference is given to suppliers with "preferred" or "potential preferred" supplier status. To achieve the highest supplier status in this division, we also require a valid sustainability assessment or proof that one is in progress. In addition, we expect our suppliers to have a certified environmental management system in place that meets the requirements of the international ISO 14001 standard. At present, 45% of our direct purchasing volume is sourced from suppliers with a valid ISO 14001 certification.

FURTHER DEVELOPMENT AND QUALIFICATION

To meet our sustainability requirements in the long term, we offer training programs to support our suppliers in the further development of their sustainable orientation, competencies, and activities. We also cooperate with service providers responsible for sustainability assessments to offer relevant webinars and additional support in the area of sustainability. For example, we provide training materials on the subject of conflict minerals. We continued our approach in 2024 of actively training and developing suppliers on the topic of sustainability. The core aspects were sustainability assessments, conflict minerals and decarbonization.

One of the incentives Knorr-Bremse offers for suppliers to continue with their sustainability activities and systematically pursue their sustainability targets are its sustainability-linked financing programs. The Sustainability-linked Supply Chain Finance (SSCF) program enables suppliers to obtain money from the bank early, i.e., as soon as they receive an order and long before it is paid for. A sustainability component was added to the program in 2022, enabling suppliers who reach certain sustainability targets to receive loan disbursements faster and with better terms. The prerequisite is that they undergo an evaluation by an ESG rating agency: This can be either Ecovadis or NQC, which is well established in the automotive industry. In collaboration with Deutsche Bank, the entire SSCF process has been designed to be very simple and accessible in order to deliberately appeal to smaller suppliers as well.

We also see training and awareness raising for purchasing employees as another key requirement for sustainable supplier management. We aim to provide our purchasing employees worldwide with the necessary skills to properly assess, advise, and review suppliers. We provided our purchasing employees with ongoing information about sustainability in procurement at events, workshops, and webinars in the reporting period. Some of the main topics included the on-site risk checklist, a CO_2 data collection tool, and, through an internal podcast series, the Carbon Border Adjustment Mechanism (CBAM), the German Supply Chain Due Diligence Act, and geopolitical risk assessment. Our e-learning courses on sustainable procurement processes and practices were utilized by 81% of purchasing employees globally in 2024.

Payment practices [G1-6]

It is important to us to maintain long-term partnerships with our suppliers based on trust. We also aim to be a reliable partner ourselves and therefore endeavor to ensure that we reliably meet our payment obligations. We are aware that payment delays on our part may have serious impacts on small and medium-sized enterprises (SMEs) in particular. The payment terms between Knorr-Bremse and its suppliers are set out in the relevant written agreements. Knorr-Bremse respects any local laws that may, in certain cases, limit payment periods to a set number of days.

On average, Knorr-Bremse settles invoices from suppliers after 59 days – counted from the start of the contractual or statutory payment period. For instance, pursuant to our general terms and conditions, the standard term of payment for purchases made by German companies is 90 days. We make exceptions on a case-by-case basis, such as for smaller suppliers.

Of our payments, 88% were made within the agreed payment periods, while 12% of our invoices were paid at a later date. These values are based on projections from existing data in our internal data systems. Based on these projections, there are no material differences between SMEs and larger corporations.

There were no outstanding legal proceedings for late payments in the 2024 reporting period in which Knorr-Bremse was the defendant.

Prevention and detection of corruption and bribery [G1-3]

Combating corruption and bribery is an important part of Knorr-Bremse's corporate responsibility and one of the key topics in the area of compliance management. We do not tolerate any form of corruption or other unfair business practices and expect the same of our business partners. Conflicts of interest, including and especially in dealing with our business partners, must be avoided. We have established appropriate compliance policies (see the Corporate culture and business conduct policies [G1-1] chapter).

The structure of our compliance management system (CMS) is based on the requirements of audit standard 980 of the Institute of Public Auditors in Germany (IDW). Relevant compliance risks are compiled and assessed in the CMS. The main goal of the CMS is to effectively anchor compliance in business processes. For example, we aim to ensure that employees comply with the law and internal regulations, prevent systematic misconduct, and detect and remedy breaches.

The main topics covered by our CMS include preventing corruption, ensuring fair competition, and avoiding conflicts of interest, fraud, and embezzlement. These subjects were determined based on a compliance risk analysis which involves selected business units and markets. As part of a worldwide compliance risk analysis, possible compliance risks were compiled and assessed on the basis of risk scenarios.

The Chief Compliance Officer is responsible for implementing the CMS and reports to the member of the Executive Board responsible for Integrity, Legal, IP, Data Protection, and Human Resources. The entire Executive Board received anti-corruption training during the reporting period. Compliance topics are also a regular agenda item at Executive Board meetings. The Supervisory Board and the Audit Committee are also regularly informed about the status of the CMS and new compliance requirements. Furthermore, the Chief Compliance Officer is a member of the Compliance Committee, which is headed by the member of the Executive Board responsible for Integrity, Legal, IP, Data Protection, and Human Resources. The committee advises on initiatives and strategies for developing the CMS, as well as on current compliance topics, and monitors the focuses of compliance activities.

In the Knorr-Bremse regions, regional compliance officers take on the role of advising and training employees, processing compliance cases, and identifying local risks. Business activities in Europe, Brazil, China, India, and the US are overseen by full-time compliance coordinators. In addition, almost all Knorr-Bremse companies have designated, in some cases local, compliance officers who are involved in the local implementation of the CMS.

The Group audit department supports the Executive Board in its monitoring function through independent and objective audit procedures. These are geared toward improving business processes and uncovering any breaches of laws or internal rules or guidelines. The internal control system (ICS), which comprises compliance-specific controls, additionally serves to verify compliance with compliance guidelines. Knorr-Bremse locations must also conduct spot checks to prove that they are effectively implementing the guideline requirements.

In addition, the audit firm PwC was engaged to review the adequacy and effectiveness of the CMS in terms of corruption prevention pursuant to IDW audit standard 980 for the period from May 1 to October 31, 2023. An unqualified certificate was issued for this audit on March 7, 2024.

Further information on our anti-corruption and anti-bribery procedures can be found in the Corporate culture and business conduct policies [G1-1] chapter.

Incidents of corruption or bribery [G1-4]

2.48 INCIDENTS OF CORRUPTION AND BRIBERY

	2024
Convictions for violation of anti-corruption and anti-bribery laws (number)	0
Fines for violation of anti-corruption and anti-bribery laws (€)	0
Total number of confirmed incidents of corruption or bribery (number)	2
Confirmed incidents in which employees were dismissed or disciplined for corruption or bribery (number)	2
Confirmed incidents relating to contracts with business partners that were terminated or not renewed due to violations related to corruption or bribery (number)	0

The figures are taken from the internal whistleblowing system, where incoming reports are recorded with a time stamp and then evaluated and followed up.

During the reporting period, neither Knorr-Bremse nor any of its employees acting in the course of their duties for Knorr-Bremse were subject to public legal proceedings or convictions for corruption-related offenses.

Product and system safety

We consider it our primary responsibility to continuously improve transportation safety for people and goods. This commitment to safety guides us every step of the way as we develop new products and services for commercial and rail vehicles and enhance existing ones. We have therefore embedded this commitment in our processes throughout the entire product life cycle.

Material impacts, risks, and opportunities [SBM-3]

2.49 PRODUCT AND SYSTEM SAFETY: OVERVIEW OF IMPACTS, RISKS, AND OPPORTUNITIES

Impact/risk/opportunity	Sub-topic	Description
Positive impact (short-term)	Product/system safety	Definition of product safety standards as well as regular and strict quality control procedures in the downstream value chain to minimize the risk of accidents and injuries (caused by product defects) and the resulting legal obligations, while also strengthening the reputation of the brand
		Prompt and effective response to safety incidents, including recalls, for greater consumer safety

With its products, systems, and services, Knorr-Bremse contributes substantially to safe, efficient, and connected rail and commercial vehicle transportation. Our portfolio not only includes braking systems as our core products, but also intelligent entrance systems, air conditioning and auxiliary power supply systems for rail vehicles, and electronic control and driver assistance systems for commercial vehicles. Many of our products and systems are safety-critical, meaning that reliability and quality are key criteria in our customers' decision to purchase products from us.

Our products, systems, and services are subject to stringent safety requirements, which arise from both customer and statutory requirements as well as from industry standards. We monitor compliance with these requirements very carefully by means of comprehensive quality planning, quality assurance, and testing procedures. Despite these extensive quality assurance measures, however, there will always be a risk that products supplied by us may have quality defects or may not be properly installed. In such cases, we work closely with our customers to find a solution quickly. We also recognize provisions based on our best estimate for the overall risk in the area of quality and product liability.

Policies on product and system safety

Product safety and quality have the highest priority throughout the Knorr-Bremse Group – as emphasized in the Group's vision, corporate values, and Code of Conduct. As a signatory to the European Railway Safety Culture Declaration, the RVS division further demonstrates its commitment to promoting a culture of safety in the industry.

In addition, both divisions have their own special safety and quality policies that their locations are required to implement. Our requirements for RVS are set out in the Safety Policy and the Quality Policy, which can be accessed on our corporate website, while those for CVS are set out in the Quality First Policy. The permanent improvement of our product and system quality along the entire supply chain is a core topic here, along with the safe production and work processes that must be implemented by employees.

The Product Safety and Product Conformity Organizational Policy lays down the organizational framework for implementing our requirements for product safety. It documents the responsibilities and tasks in the organization. Overall responsibility for compliance with product safety and product conformity lies with the Executive Board of Knorr-Bremse AG; the Executive Board involves the companies of the RVS and CVS divisions for this. The Product Safety Committee (PSC) has to ensure that product safety and product conformity are implemented.

Knorr-Bremse's quality management systems are based on international standards. In the RVS division, these are the quality standards ISO 9001 and ISO 22163 (formerly IRIS, International Railway Industry Standard). The rail-specific requirements included in ISO 22163 are firmly anchored in the division's processes and manuals and the Knorr-Bremse production system. For the CVS division, the IATF (International Automotive Task Force) 16949 quality standard applies. Table → 2.50

Management approach and actions related to product and system safety

Our processes for managing product and system safety are described in and steered by means of the Rail Excellence (REX) and Truck Excellence (TEX) management systems. We use a variety of methods to ensure continuous quality and safety at all stages of the value chain over which we can exert an influence. This includes the development process, product validation, the careful selection of suppliers, the Knorr-Bremse manufacturing process, and the delivery of our products. Among the methods and actions used are failure mode and effects analyses (FMEAs), product safety audits and reviews, supplier monitoring, our own production line audits, mandatory product safety training for employees, product testing, field testing, and in-depth market monitoring. Regular internal audits and assessments serve to verify and optimize the implementation of our process management system. As a quality control measure, we regularly conduct regional, global, and product-specific quality reviews. The reviews and strict escalation processes ensure that potential safety-critical incidents are assessed and resolved at an early stage.

Knorr-Bremse seeks to fulfill its obligation to monitor products globally and identify potential risks in the use phase, and has implemented a product integrity process for this purpose. The regional quality managers are responsible for active product monitoring through market observation, media research, customer complaint analysis, and checks of accident/recall databases. Potential risks in product and system safety are reported to the Group Clearing board. After the matters have been investigated, which includes performing a risk assessment, Group Clearing decides on the recommended actions and involves the PSC if needed. If there are safety-critical incidents, the PSC decides on the final assessment and on suitable risk prevention measures to ensure the safety and conformity of the marketed products and systems.

To meet supplier management quality standards, both divisions monitor and audit their supplier base. In addition to a process audit for suppliers, the RVS division uses prior information suppliers have provided about themselves, including on quality certificates such as ISO 22163. Adherence to this standard is a requirement for attaining the status of preferred supplier at Knorr-Bremse. In the CVS division, every supplier must undergo a product safety audit and a review by the Sourcing Board, which includes representatives from the Purchasing, Quality, Logistics, and R&D departments.

Knorr-Bremse is constantly working to further improve the level of safety and quality in both of its divisions – with respect to both business processes and the product portfolio. With our high-quality and reliable products, systems, and services, we aim to make a substantial contribution to improving transportation safety. This self-imposed commitment, along with growing demands from society, means that transportation safety is a key focus of our research and development activities. Some of the safety-related products we have developed include braking systems for higher transportation capacity and safety, collision avoidance and object detection systems, and digital and electrified product solutions (see the About the Group chapter, Research and Development section).

Targets and metrics related to product and system safety

Our internal corporate guidelines create a binding framework for our safety and quality targets. The zero-defect philosophy and our product safety management system are designed to help us achieve the goals we have set for all our products and services: increased efficiency, maximum flexibility and productivity from production to vehicle operation, maximum delivery reliability and customer satisfaction, accident prevention, and improved infrastructure utilization.

We ensure that relevant quality metrics such as cost of poor quality, as well as functional test failures and product safety audit results, are monitored by providing a monthly report to the quality organization, the divisional Management Boards, and the Executive Board. Each year, we set global quality targets for suppliers, business processes, and customers. In both divisions, these targets are linked to senior management remuneration, weighing in at 10% of short-term variable remuneration. The performance criterion "quality" focuses on operating activities in the business units, with quality targets such as the "cost of poor quality" set for both divisions. In the reporting period, the quality targets for CVS were approximately 107% achieved and those for RVS approximately 120% (see Compensation Report).

The global quality officers and the Executive Board set the Group targets for product and system safety. The locations are also involved in this process through regular dialog with the relevant experts. In the CVS division, the regions and other global functions, such as Purchasing, participate as well. The global targets are broken down for the quality managers and their respective locations. To achieve the targets, we conduct a status analysis for each location to determine necessary actions. Location managers are involved in both the review and the target-setting process. They are supported in all matters by the local quality organization.

2.50 CERTIFIED COMPANY UNITS

	2024	2023
Locations with a certified quality management system in accordance with ISO 9001, ISO 22163, or IATF 16949 (number)	110	116
Coverage rate of employees (%)	91	94

Appendix to the Sustainability Statement

2.51 INDEX OF COVERED DISCLOSURE REQUIREMENTS

Chapter	ESRS standard	Disclosure requirement	Definition	Chapter in the report
General disclosures	ESRS 2	BP-1	General basis for preparation of sustainability statements	General disclosures [ESRS 2]
General disclosures	ESRS 2	BP-2	Disclosures in relation to specific circumstances	General disclosures [ESRS 2]
General disclosures	ESRS 2	GOV-1	The role of the administrative, management and supervisory bodies	General disclosures [ESRS 2]
General disclosures	ESRS 2	GOV-2	Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies	General disclosures [ESRS 2]
General disclosures	ESRS 2	GOV-3	Integration of sustainability-related performance in incentive schemes	General disclosures [ESRS 2]
General disclosures	ESRS 2	GOV-4	Statement on due diligence	General disclosures [ESRS 2]
General disclosures	ESRS 2	GOV-5	Risk management and internal controls over sustainability reporting	General disclosures [ESRS 2]
General disclosures	ESRS 2	SBM-1	Strategy, business model and value chain	General disclosures [ESRS 2]
General disclosures	ESRS 2	SBM-2	Interests and views of stakeholders	General disclosures [ESRS 2]
General disclosures	ESRS 2	SBM-3	Material impacts, risks and opportunities and their interaction with strategy and business model	General disclosures [ESRS 2]
General disclosures	ESRS 2	IRO-1	Description of the processes to identify and assess material impacts, risks and opportunities	General disclosures [ESRS 2]
General disclosures	ESRS 2	IRO-2	Disclosure requirements in ESRS covered by the undertaking's sustainability statement	General disclosures [ESRS 2]
Climate change	ESRS E1	E1-1	Transition plan for climate change mitigation	Climate change[E1]
Climate change	ESRS E1	ESRS 2 SBM-3	Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Climate change[E1]
Climate change	ESRS E1	E1-2	Policies related to climate change mitigation and adaptation	Climate change[E1]
Climate change	ESRS E1	E1-3	Actions and resources in relation to climate change policies	Climate change [E1]
Climate change	ESRS E1	E1-4	Targets related to climate change mitigation and adaptation	Climate change[E1]
Climate change	ESRS E1	E1-5	Energy consumption and mix	Climate change [E1]
Climate change	ESRS E1	E1-6	Gross Scopes 1, 2, 3 and total GHG emissions	Climate change [E1]
Climate change	ESRS E1	E1-7	GHG removals and GHG mitigation projects financed through carbon credits	Climate change [E1]
Climate change	ESRS E1	E1-8	Internal carbon pricing	Climate change [E1]
Climate change	ESRS E1	E1-9	Potential financial effects from material physical and transition risks and potential climate-related opportunities	Phase-in
Pollution	ESRS E2	ESRS 2 SBM-3	Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Pollution [E2]
Pollution	ESRS E2	E2-1	Policies related to pollution	Pollution [E2]
Pollution	ESRS E2	E2-2	Actions and resources related to pollution	Pollution [E2]
Pollution	ESRS E2	E2-3	Targets related to pollution	Pollution [E2]
Pollution	ESRS E2	E2-5	Substances of concern and substances of very high concern	Phase-in
Pollution	ESRS E2	E2-6	Anticipated financial effects from pollution-related impacts, risks and opportunities	Phase-in

Water	ESRS E3	ESRS 2 SBM-3	Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks and opportunities and their interaction with strategy and business model	Water resources [E3]
Water	ESRS E3	E3-1	Policies related to water and marine resources	Water resources [E3]
Water	ESRS E3	E3-2	Actions and resources related to water and marine resources	Water resources [E3]
Water	ESRS E3	E3-3	Targets related to water and marine resources	Water resources [E3]
Water	ESRS E3	E3-4	Water consumption	Water resources [E3]
Water	ESRS E3	E3-5	Potential financial effects from water and marine resources-related impacts, risks, and opportunities	Phase-in
Resource use and circular economy	ESRS E5	ESRS 2 SBM-3	Disclosure Requirement related to ESRS 2 SBM-3 – Material impacts, risks, and opportunities and their interaction with strategy and business model	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-1	Policies related to resource use and circular economy	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-2	Actions and resources related to resource use and circular economy	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-3	Targets related to resource use and circular economy	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-4	Resource inflows	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-5	Resource outflows	Resource use and circular economy [E5]
Resource use and circular economy	ESRS E5	E5-6	Anticipated financial effects from resource use and circular economy-related impacts, risks, and opportunities	Phase-in
Own workforce	ESRS S1	ESRS 2 SBM-2	Disclosure requirement related to ESRS 2 SBM-2 – interests and views of stakeholders	General disclosures
Own workforce	ESRS S1	ESRS 2 SBM-3	Disclosure requirement related to ESRS 2 SBM-3 – material impacts, risks, and opportunities and their interaction with strategy and business model	Own workforce [S1]
Own workforce	ESRS S1	S1-1	Policies related to own workforce	Own workforce [S1]
Own workforce	ESRS S1	S1-2	Processes for engaging with own workers and workers' representatives about impacts	Own workforce [S1]
Own workforce	ESRS S1	S1-3	Processes to remediate negative impacts and channels for own workers to raise concerns	Own workforce [S1]
Own workforce	ESRS S1	S1-4	Taking action on material impacts on own workforce, and approaches to mitigating material risks and pursuing material opportunities related to own workforce, and effectiveness of those actions	Own workforce [S1]
Own workforce	ESRS S1	S1-5	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	Own workforce [S1]
Own workforce	ESRS S1	S1-6	Characteristics of the undertaking's employees	Own workforce [S1]
Own workforce	ESRS S1	S1-7	Characteristics of non-employee workers in the undertaking's own workforce	Phase-in
Own workforce	ESRS S1	S1-9	Diversity metrics	Own workforce [S1]
Own workforce	ESRS S1	S1-10	Adequate wages	Own workforce [S1]
Own workforce	ESRS S1	S1-11	Social protection	Own workforce [S1]
Own workforce	ESRS S1	S1-12	Persons with disabilities	Own workforce [S1]
Own workforce	ESRS S1	S1-13	Training and skills development metrics	Own workforce [S1] Phase-in for "average number of training hours per employee"
Own workforce	ESRS S1	S1-14	Health and safety metrics	Own workforce [S1] Phase-in for "work-related ill health" and for "non-employees in the undertaking's own workforce"
Own workforce	ESRS S1	S1-15	Work–life balance metrics	Own workforce [S1]

Own workforce	ESRS S1	S1-16	Remuneration metrics (pay gap and total remuneration)	Own workforce [S1]
Own workforce	ESRS S1	S1-17	Incidents, complaints, and severe human rights impacts	Own workforce [S1]
Workers in the value chain	ESRS S2	ESRS 2 SBM-2	Disclosure requirement related to ESRS 2 SBM-2 interests and views of stakeholders	General disclosures Workers in the value chain [SBM3, S2-2]
Workers in the value chain	ESRS S2	ESRS 2 SBM-3	Disclosure requirement related to ESRS 2 SBM-3 material impacts, risks, and opportunities and their interaction with strategy and business mode	Workers in the value chain [S2]
Workers in the value chain	ESRS S2	S2-1	Policies related to value chain workers	Workers in the value chain [S2]
Workers in the value chain	ESRS S2	S2-2	Processes for engaging with value chain workers about impacts	Workers in the value chain [S2]
Workers in the value chain	ESRS S2	S2-3	Processes to remediate negative impacts and channels for value chain workers to raise concerns	Workers in the value chain [S2]
Workers in the value chain	ESRS S2	S2-4	Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions	Workers in the value chain [S2]
Workers in the value chain	ESRS S2	S2-5	Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities	Workers in the value chain [S2]
Business conduct	ESRS G1	ESRS 2 GOV-1	Disclosure requirement related to ESRS 2 GOV-1 – the role of the administrative, management, and supervisory bodies	Business conduct [G1]
Business conduct	ESRS G1	G1-1	Business conduct policies and corporate culture	Business conduct [G1]
Business conduct	ESRS G1	G1-2	Management of relationships with suppliers	Business conduct [G1]
Business conduct	ESRS G1	G1-3	Prevention and detection of corruption and bribery	Business conduct [G1]
Business conduct	ESRS G1	G1-4	Confirmed incidents of corruption or bribery	Business conduct [G1]
Business conduct	ESRS G1	G1-6	Payment practices	Business conduct [G1]
Product and system safety (entity-specific disclosure)				Product and system safety

2.52 INDEX OF DATA POINTS THAT DERIVE FROM OTHER EU LEGISLATION

Disclosure requirement	Data point	Description	SFDR reference	Pillar 3 reference	Benchmark Regulation reference	EU Climate Law reference	Chapter in the report
ESRS 2 GOV-1	21 (d)	Board's gender diversity	X		X		General disclosures [ESRS 2]
ESRS 2 GOV-1	21 (e)	Percentage of board members who are independent			X		General disclosures [ESRS 2]
ESRS 2 GOV-4	30	Statement on due diligence	X				General disclosures [ESRS 2]
ESRS 2 SBM-1	40 (d) i	Involvement in activities related to fossil fuel activities	X	X	X		Not material
ESRS 2 SBM-1	40 (d) ii	Involvement in activities related to chemical production	X		X		Not material
ESRS 2 SBM-1	40 (d) iii	Involvement in activities related to controversial weapons	X		X		Not material
ESRS 2 SBM-1	40 (d) iv	Involvement in activities related to cultivation and production of tobacco			X		Not material
ESRS E1-1	14	Transition plan to reach climate neutrality by 2050				X	Climate change [E1]
ESRS E1-1	16 (g)	Undertakings excluded from Paris-aligned Benchmarks		X	X		Not material
ESRS E1-4	34	GHG emission reduction targets	X	X	X		Climate change[E1]
ESRS E1-5	38	Energy consumption from fossil sources disaggregated by sources (only high climate impact sectors)	X				Climate change [E1]
ESRS E1-5	37	Energy consumption and mix	X				Climate change [E1]
ESRS E1-5	40-43	Energy intensity associated with activities in high climate impact sectors	X				Climate change [E1]
ESRS E1-6	44	Gross Scopes 1, 2, 3 and Total GHG emissions	X	X	X		Climate change [E1]
ESRS E1-6	53-55	Gross GHG emissions intensity	X	X	X		Climate change [E1]
ESRS E1-7	56	GHG removals and carbon credits			X		Climate change [E1]
ESRS E1-9	66	Exposure of the benchmark portfolio to climate-related physical risks			X		Phase-in
ESRS E1-9	66 (a); 66 (c)	Disaggregation of monetary amounts by acute and chronic physical risk; location of significant assets at material physical risk		X			Phase-in
ESRS E1-9	67 (c)	Breakdown of the carrying value of its real estate assets by energy-efficiency classes		X			Phase-in
ESRS E1-9	69	Degree of exposure of the portfolio to climate-related opportunities			X		Phase-in

ESRS E2-4	28	Amount of each pollutant listed in Annex II of the EPRTR Regulation (European Pollutant Release and Transfer Register) emitted to air, water, and soil	X				Not material
ESRS E3-1	9	Water and marine resources	X				Water resources [E3]
ESRS E3-1	13	Dedicated policy	X				Water resources [E3]
ESRS E3-1	14	Sustainable oceans and seas	X				Not material
ESRS E3-4	28 (c)	Total water recycled and reused	X				Not material
ESRS E3-4	29	Total water consumption in m^3 relative to net revenue from own activities	X				Water resources [E3]
ESRS 2- SBM 3 – E4	16 (a) i		X				Not material
ESRS 2- SBM 3 – E4	16 (b)		X				Not material
ESRS 2- SBM 3 – E4	16 (c)		X				Not material
ESRS E4-2	24 (b)	Sustainable land/agriculture practices or policies	X				Not material
ESRS E4-2	24 (c)	Sustainable oceans/seas practices or policies	X				Not material
ESRS E4-2	24 (d)	Policies to address deforestation	X				Not material
ESRS E5-5	37 (d)	Non-recycled waste	X				Resource use and circular economy [E5]
ESRS E5-5	39	Hazardous waste and radioactive waste	X				Resource use and circular economy [E5]
ESRS 2- SBM 3 – S1	14 (f)	Risk of incidents of forced labor	X				Own workforce [S1]
ESRS 2- SBM 3 – S1	14 (g)	Risk of incidents of child labor	X				Own workforce [S1]
ESRS S1-1	20	Human rights policy commitments	X				Own workforce [S1]
ESRS S1-1	21	Due diligence policies on issues addressed by the fundamental International Labour Organization Conventions 1 to 8			X		Own workforce [S1]
ESRS S1-1	22	Processes and measures for preventing trafficking in human beings	X				Own workforce [S1]
ESRS S1-1	23	Work-related accident prevention policy or management system	X				Own workforce [S1]
ESRS S1-3	32 (c)	Grievance/complaints handling mechanisms	X				Own workforce [S1]
ESRS S1-14	88 (b) & (c)	Number of fatalities and number and rate of work-related accidents	X		X		Own workforce [S1]
ESRS S1-14	88 (e)	Number of days lost to injuries, accidents, fatalities, or illness	X				Own workforce [S1] Phase-in for "work-related ill health" and for "non-employees in the undertaking's own workforce"
ESRS S1-16	97 (a)	Unadjusted gender pay gap	X		X		Own workforce [S1]

ESRS S1-16	97 (b)	Excessive CEO pay ratio	X				Own workforce [S1]
ESRS S1-17	103 (a)	Incidents of discrimination	X				Own workforce [S1]
ESRS S1-17	104 (a)	Non-respect of UNGPs on Business and Human Rights and OECD guidelines	X		X		Own workforce [S1]
ESRS 2- SBM 3 – S2	11 (b)	Significant risk of child labor or forced labor in the value chain	X				Own workforce [S1]
ESRS S2-1	17	Human rights policy commitments	X				Own workforce [S1]
ESRS S2-1	18	Policies related to value chain workers	X				Workers in the value chain [S2]
ESRS S2-1	19	Non-respect of UNGPs on Business and Human Rights and OECD guidelines	X		X		Workers in the value chain [S2]
ESRS S2-1	19	Due diligence policies on issues addressed by the fundamental International Labour Organization Conventions 1 to 8			X		Workers in the value chain [S2]
ESRS S2-4	36	Human rights issues and incidents connected to its upstream and downstream value chain	X				Workers in the value chain [S2]
ESRS S3-1	16	Human rights policy commitments	X				Not material
ESRS S3-1	17	Non-respect of UNGPs on Business and Human Rights and OECD guidelines	X		X		Not material
ESRS S3-4	36	Human rights issues and incidents	X				Not material
ESRS S4-1	16	Policies related to consumers and end-users	X				Not material
ESRS S4-1	17	Non-respect of UNGPs on Business and Human Rights and OECD guidelines	X		X		Not material
ESRS S4-4	35	Human rights issues and incidents	X				Not material
ESRS G1-1	10 (b)	United Nations Convention against Corruption	X				Business conduct [G1]
ESRS G1-1	10 (d)	Protection of whistleblowers	X				Business conduct [G1]
ESRS G1-4	24 (a)	Fines for violation of anti-corruption and anti-bribery laws	X		X		Business conduct [G1]
ESRS G1-4	24 (b)	Anti-corruption and anti-bribery standards	X				Business conduct [G1]

2.53 OVERVIEW OF POLICIES [MDR-P]

Policy	General objectives	Core content	Scope of application (geography, stakeholders, value chain)	Top-level responsibility	Referenced standards	Communication
Code of Conduct	Fair and sustainable business practices as well as ethical and responsible principles of action	• Compliance • Integrity and corporate governance • Human rights • Working conditions • Dealings with business partners • Protection of company property • Product safety and quality • Export control • Climate change mitigation and environmental protection • Social commitment • Whistleblower system	• Group-wide • Own workforce • Expectations of suppliers	• Executive Board • Compliance department	• UN Global Compact • Standards of the International Labour Organization (ILO)	• Internet • Intranet • Employment contracts • Direct communication • eLearning
Human Rights Policy	Respect for and protection of human rights	• Working conditions • Occupational safety • Forced labor, modern slavery, and human trafficking • Child labor • Equal opportunity and integration • Harassment • Freedom of association, freedom of assembly, and collective bargaining • Freedom of expression • Corruption • Privacy • Whistleblower system	• Group-wide • Own workforce • Persons working indirectly for Knorr-Bremse • Upstream and downstream value chain • Society and local communities	• Executive Board • Compliance department	• International Bill of Human Rights • UN Guiding Principles on Business and Human Rights • UN Global Compact • Standards of the International Labor Organization (ILO) • OECD Guidelines for Multinational Enterprises	• Internet • Intranet • Direct communication
HSE Policy	Internal principles for health, safety, and environmental protection	• Health protection • Occupational safety • Environmental protection • Energy efficiency	• Group-wide • Own workforce	• Executive Board • HSE department		• Internet • Intranet • Direct communication • eLearning
Diversity, Anti-Discrimination & Anti-Harassment Policy	Open and inclusive work environment free of discrimination and harassment	• Equality of all individuals regardless of visible and non-visible characteristics • Zero tolerance of discrimination and harassment • Whistleblower systems	• Group-wide • Own workforce	• Executive Board • HR department		Adopted by the Executive Board in December 2024 and to be made public in 2025 via • the intranet and • direct communication

Code of Conduct for Suppliers	Standards and expectations placed on suppliers	• Business ethics and compliance • Human rights (incl. conflict minerals) • Working conditions • Discrimination and harassment • Forced labor, child labor • Occupational safety • Environmental protection • Product safety and integrity • Data protection • Whistleblower system	• Worldwide • Suppliers of direct and indirect materials	Purchasing department	UN Global Compact	• Internet • Intranet • Direct communication • Contracts
Responsible Minerals Policy	Handling of conflict minerals	• Due diligence in the supply chain • No raw materials from conflict areas • Annual disclosure of sources of supply by suppliers • Immediate reporting of changes • Compliance with quality guidelines • Consequences of non-compliance	• Worldwide • Suppliers that use conflict minerals	Purchasing department	• Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance) • SEC's Disclosure Requirements for Companies that use "conflict minerals" • RMI Conflict Minerals Reporting Template	• Internet • Intranet • Direct communication • Contracts
RVS Safety Policy	Product safety	• Safe products and services • Legally prescribed safety requirements • Process and product improvement	• RVS division • Own workforce • Upstream and downstream value chain	Quality department		• Internet • Intranet • Direct communication
RVS Quality Policy	Product quality	• Product and service quality • Quality management system • Process and product improvement	• RVS division • Own workforce • Upstream and downstream value chain	Quality department		• Internet • Intranet • Direct communication
CVS Quality First Policy	Product safety and quality	• Quality of products and services • Safe products and systems • Process and product improvement	• CVS division • Own workforce • Upstream and downstream value chain	Quality department		• Internet • Direct communication

Implementation of the policies is monitored by the responsible departments through regular reviews. Progress is regularly reported to the responsible department heads, with adjustments made as needed to ensure alignment with policy objectives.

2.54 TABLES PURSUANT TO FOOTNOTE C) COMMISSION DEL. REG. 2023/2486 ANNEX V

Revenue share/total revenues

	Taxonomy alignment per objective	Taxonomy eligibility per objective
Climate change mitigation (CCM)	31.1%	49.8%
Climate change adaptation (CCA)	-	-
Water and marine resources (WTR)	-	-
Circular economy (CE)	0.1%	0.2%
Pollution prevention and control (PPC)	-	-
Biodiversity (BIO)	-	-

CapEx share/total revenues

	Taxonomy alignment per objective	Taxonomy eligibility per objective
Climate change mitigation (CCM)	16.5%	51.2%
Climate change adaptation (CCA)	-	-
Water and marine resources (WTR)	-	-
Circular economy (CE)	1.0%	2.1%
Pollution prevention and control (PPC)	-	-
Biodiversity (BIO)	-	-

OpEx share/total revenues

	Taxonomy alignment per objective	Taxonomy eligibility per objective
Climate change mitigation (CCM)	6.2%	12.5%
Climate change adaptation (CCA)	-	-
Water and marine resources (WTR)	-	-
Circular economy (CE)	0.1%	0.1%
Pollution prevention and control (PPC)	-	-
Biodiversity (BIO)	-	-

2.55 TEMPLATE: NUCLEAR AND FOSSIL GAS RELATED ACTIVITIES

	Nuclear energy related activities	
1.	The undertaking carries out, funds, or has exposures to research, development, demonstration, and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2.	The undertaking carries out, funds, or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	NO
3.	The undertaking carries out, funds, or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	NO
	Fossil gas related activities	
4.	The undertaking carries out, funds, or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5.	The undertaking carries out, funds, or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
6.	The undertaking carries out, funds, or has exposures to construction, refurbishment, and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

Business Report[11]

General economic and industry-related conditions

Economic activity and industry environment

UNEVEN GLOBAL ECONOMY AFTER PANDEMIC[12]

Due to the approach taken by central banks, inflation went down from its peak in mid-2022 and came increasingly closer to the banks' target values. The economy proved to be resilient. Economic forecasts were exceeded in the United States and a number of emerging economies and middle-income countries in particular, although there were major differences between countries. Medium-term growth is under the historical (2000–2019) average of 3.7%, with growth of 3.3% being forecast for 2025.

In the US, GDP growth was revised up by 0.2 percentage points to 2.8% thanks to strong consumption and investment in non-residential construction in 2024. This increase is based on a robust increase in real wages.

In Europe, GDP growth for 2024 is projected to be 0.8% due to improved exports. The low point seen in 2023 therefore appears to have passed.

In Asia, a decline in its GDP growth was recorded for 2024, as the demand driven by the post-pandemic recovery is ebbing, especially in India with a decline of 1.7 percentage points to 6.5%. In China, GDP growth went down slightly to 4.8%. Although the real estate sector continues to be vulnerable, net exports are increasing more than expected.

The slowdown in growth, combined with greater debt and higher interest rates, is resulting in declining financing for public services and important investments. IMF research findings indicate that long periods of stagnation push up inequality.

Four years on from the outbreak of the Covid-19 pandemic, budget deficits and debt levels are exceeding pre-pandemic projections.

One reason, among others, for the slower growth track is the increasing geopolitical fragmentation. This bases the trade and investment decision making on geopolitical considerations. The global economy is already being reshaped by a reversal of trade, capital, and investment flows. This could nullify the benefits of globalization. Global conflicts such as wars in Ukraine and the Middle East and the consequent increase in political instability are the main causes of the economic fragmentation.

The increasing use of artificial intelligence (AI) potentially has severe impacts, too. Firstly, AI can be used to boost productivity and global growth, although AI may also replace jobs and, in doing so, increase inequality. According to a recent IMF paper, roughly 60% of jobs in advanced economies may be affected by AI. In emerging markets and low-income countries, this figure might be 40% and 26% respectively.

FINANCIAL MARKETS MARKED BY WEAK ECONOMY AND GEOPOLITICAL CRISIS

The global financial markets saw a stable start to 2024, with inflation increasingly nearing the targets sought by central banks. Over the course of the year, inflation declined further due to the measures taken – especially those in connection with the key inflation components of energy and raw materials – which had a positive effect. However, the ongoing wars in Ukraine and the Middle East led to investors and companies acting more cautiously, which in turn resulted in volatility and uncertainty on the financial markets. The yields of long-term government bonds in Germany and the US recorded an increase in 2024. The equity markets were stable. Looking at the year as a whole, the MDAX saw little movement while the DAX had gains of more than 16%. (source: Refinitiv).

In 2024, the USD/EUR exchange rate moved in the range of 1.04 to 1.12, ending the year at 1.04 (source: Refinitiv).

RAIL VEHICLE MARKET

In a highly competitive market environment, Knorr-Bremse is one of the world's leading companies in the key markets for, among other things, braking, entrance and HVAC systems for rail vehicles. The main competitor in the relevant product segments is Wabtec Corporation although, as a vehicle manufacturer, its overlap with Knorr-Bremse's product segments is limited. Knorr-Bremse is active in multiple regions, including Europe/Africa, North and South America, and the Asia–Pacific. Our position as a leading supplier of components for rail vehicles in our traditional European markets represents a strong foundation for our future business development.

In spite of the prevailing geopolitical tension, the ongoing Russian invasion of Ukraine, and continued supply chain shortages, stable market growth was recorded in 2024.

[11] None of the disclosures in this Combined Management Report regarding the categorization of revenues as OE or aftermarket or regarding order intake, order books, book-to-bill ratios, and forward order books are audited. These disclosures are not the subject matter of the auditor's conclusions.

[12] The information presented in this chapter is based on analyses and findings of the International Monetary Fund (IMF) as outlined in its latest report.

Compared with 2023, passenger volumes increased in both regional and local transportation, again exceeding pre-Covid levels.

For rail freight, it is expected that transport volumes increased further in 2024.

The following market assessments are based on leading industry studies and internal market research.

Europe/Africa
A further increase to above pre-Covid levels was observed in passenger transportation in 2024.

Freight market volumes increased again in 2024 following a decline in 2023, though they remain moderately below the numbers seen in 2021 and 2022.

North America/South America
Passenger transportation in the Americas continued to recover but had still not returned to pre-Covid levels. Freight market volumes grew when compared with 2023.

Asia–Pacific
Passenger transportation in China rose further year over year.

The freight market also grew in 2024, New vehicle procurement in 2024 increased strongly year over year for high-speed trains and declined slightly for metro trains. The aftermarket saw greater demand for spare parts and maintenance jobs.

India is still the second-largest rail vehicle market in Asia behind China, which defended its position as the world's largest market.

COMMERCIAL VEHICLE MARKET

Competitive situation and market position
With the product portfolio offered by the Commercial Vehicle Systems division, Knorr-Bremse is one of the global leaders in this sector. Alongside smaller vendors, Knorr-Breme's principal competitor is Wabco Holdings, Inc., which was acquired by ZF Friedrichshafen in 2020. Wabco is in direct competition with Knorr-Bremse in the development of future trends such as driver assistance, automated driving, and e-mobility. In our core markets, North America and Europe, Knorr-Bremse has a market-leading position for air brake systems. Its leading position in highly regulated markets for disk brakes and driver assistance systems represents a strong foundation with much potential for further growth in the Asia–Pacific region. These assessments are based on internal market analyses for the 2024 fiscal year.[13]

The following market data relates to truck production rates in each region as published by various organizations (e.g., GlobalData UK Ltd, formerly known as LMC Automotive Ltd.) in February 2025 as well as the company's estimates.

The global commercial vehicle market fell by a significant 8% year over year in 2024 when measured by the truck production rate. In 2024, we experienced an unfortunate regional mix due to the stronger decline in production in Europe, which is our market with a large share per vehicle. Although the Chinese market's decline was less strong, our share per vehicle in that high-volume market is not as large.

Europe/Africa
After the catch-up effects of previous years, vehicle production in western Europe fell strongly by 23% to roughly 407 thousand units in 2024. In eastern Europe, production decreased by 19% from 2023 and reached approximately 57 thousand units.

North America/South America
Commercial vehicle production in North America, after experiencing a recovery effect in 2023, went down by 2% to 422 thousand units. In South America, truck and bus production rose by 41% to 141 thousand units after a challenging 2023.

Asia–Pacific
After a strong 2022 and 2023, Chinese truck production in 2024 went down by 4% to 985 thousand units. In India, commercial vehicle production fell by 11% from 2023, and in Japan by 14%. Overall, commercial vehicle production in the Asia region saw a 7% fall to roughly 1.5 million units.

General statement by the Executive Board and achievement of objectives

The Executive Board of Knorr-Bremse AG is very satisfied with the business performance in 2024, a year which was marked by a further decrease in inflation and by geopolitical challenges. Knorr-Bremse proved its resilient and crisis-proof business model once again and achieved a stable revenue level and record order book. The raised revenue guidance from the quarterly report for January through September 2024 was met. Operating EBIT is in the middle of the target range projected in the 2024 half-year financial report and was supported by efficiency measures. Free cash flow significantly exceeded the

[13] Not audited; not subject to auditor's opinion.

forecast presented in the 2023 Combined Management Report and was therefore able to achieve a very strong level again. The company reached a new high in its order book, partly due to the acquisition of KB Signaling, while order intake was at the previous year's level. . (**Table → 2.56**)

,

2.56 ACHIEVEMENT OF OBJECTIVES (TARGET-ACTUAL COMPARISON)

		2024 actual	Quarterly Report, January 1 to September 30, 2024	2024 Half-Year Financial Report	2023 Combined Management Report	2023 actual
Most significant financial performance indicators						
Revenues	in € million	7,883	7,800–8,100	7,700–8,000	7,700–8,000	7,926
Operating EBIT margin (as % of revenues)	%	12.3	11.5–13.0	11.5–13.0	11.5–12.5	11.3
Free cash flow	in € million	730	550–650	550–650	550–650	552

In the last fiscal year, Knorr-Bremse attained **revenues** of € 7,883 million, equivalent to a slight fall of roughly 0.5% compared to the previous year (previous year: € 7,926 million). Knorr-Bremse thus reached the revenue guidance of € 7,700 million to € 8,000 million presented in its 2023 Combined Management Report as well as the revised forecast of € 7,800 million to € 8,100 million in its quarterly report for January 1 to September 30, 2024. The year 2024 included € 101 million of revenues from the purchase of KB Signaling while the previous year still included February to December 2023 revenues of € 142 million from the Kiepe Group, which was deconsolidated at the end of January 2024. Due to the opposing development of OE and aftermarket sales, the aftermarket share of total sales at Group level increased from 39.5% to 43.1% compared to the previous year.

The revenue downturn resulted from the **Commercial Vehicle Systems division** as a consequence of significant declines in OE business in all regions. The Commercial Vehicle Systems division attracted revenues of € 3,842 million, representing a moderate decline of 8.1% compared to the previous year. As a result, the "slight decline" predicted in the 2023 Management Report was not realized.

The **Rail Vehicle Systems division**, on other hand, saw € 4,044 million and was able to eclipse the previous year's level by 7.9%, especially through its increased aftermarket business, so it was largely able to offset the falling revenues in the Commercial Vehicle Systems division. It also meant that the division's "slight increase" forecast in the 2023 Management Report was exceeded.

The **operating EBIT margin** came to 12.3% of revenues and therefore also fell within the 11.5% to 12.5% margin forecast in the 2023 Combined Management Report, which was raised to 11.5% to 13.0% in the Half-Year Financial Report. A moderate increase of 100 base points from the previous year (11.3%) was attained.

The **Rail Vehicle Systems division** increased its operating EBIT margin by a moderate 130 base points year over year due to a more profitable aftermarket business, improved pricing in new contracts, and successes gained from structural measures, achieving a level of 15.6%. The "solid increase" that was forecast for the operating EBIT margin of Rail Vehicle Systems division in the 2023 Management Report was achieved.

The **Commercial Vehicle Systems division** was able to increase its operating EBIT margin to 10.4% and was thus up a slight 40 base points year over year, reaching the guidance issued in the 2023 Management Report.

Operating EBIT for the Group was € 966 million and thus moderately above the prior-year level by 8.2% (€ 893 million). Compared with the recognized EBIT of € 911 million, there were adjustments in particular for € 26 million in connection with M&A activities, concerning mainly impairments of € 18 million for the planned disposal of GT Emissions Systems in the Commercial Vehicle Systems division, as well as € 8 million depreciation from purchase price allocation in connection with the acquisition of KB Signaling in the Rail Vehicle Systems division. Furthermore, there was an adjustment for € 18 million of expenses in connection with restructuring (including restructuring consultancy services and severance payments). There were also expenses of € 16 million in the Commercial Vehicle Systems division in connection with an off-period recall campaign associated with a software update in the North American market. This stood against an adjustment for an off-period income of € 4 million in connection with customer contracts in the Rail Vehicle Systems division. In the previous year, the operating EBIT had been calculated by adjusting mainly for € 14 million of expenses in connection with expected expenses on non-warranty remedies in Asia in the Rail Vehicle Systems division and € 4 million of income from the withdrawal from the Russian market in both divisions. In addition, the Commercial Vehicle Systems division adjusted for € 4 million of losses on disposal as part of M&A activities in North America as well as € 6 million for restructuring expenses in connection with the combination of businesses in Japan.

Free cash flow amounted to € 730 million, which significantly exceeded the € 550 million to € 650 million range forecast in the 2023 Combined Management Report and a very significant amount above the prior-year level (€ 552 million). The improved net working capital in particular had a positive effect on free cash flow.

Corporate management indicators

The most significant financial key performance indicators at Knorr-Bremse in the 2024 fiscal year were revenues, operating EBIT, operating EBIT margin, and free cash flow. See the Value management chapter for further details.

We report operating return on capital employed (ROCE) as an other performance metric at Knorr-Bremse. We are using these changes to take account of the capital market's requirements and to place greater emphasis on the metrics predominantly used in this context. Table → 2.57, 2.58

2.57 MANAGEMENT INDICATORS

	2024	2023
Revenues (€ million)	7,883	7,926
EBIT (€ million)	911	870
EBIT margin (as % of revenues)	11.6	11.0
Operating EBIT (€ million)	966	893
Operating EBIT margin (as % of revenues)	12.3	11.3
Operating ROCE (%)*	20.8	19.5
Net working capital in days' sales	59	51
Employees (as of Dec. 31, incl. temp. staff)	32,549	33,319

*The calculation of the operating ROCE has used operating EBIT (previously EBIT) in relation to the adjusted capital employed since the 2024 fiscal year; the adjusted value for 2023 was 20.0%, whereby operating EBIT was set in relation to reported capital employed for 2023.

2.58 DIVISIONAL REVENUES AND (OPERATING) EBIT MARGIN

	2024	2023
Rail Vehicle Systems		
Revenues	4,044	3,748
EBIT margin (as % of revenues)	15.5	14.2
Operating EBIT margin (as % of revenues)	15.6	14.3
Commercial Vehicle Systems		
Revenues	3,842	4,180
EBIT margin (as % of revenues)	9.1	9.5
Operating EBIT margin (as % of revenues)	10.4	10.0

Non-financial performance indicators are not primarily used to control the company. They are more useful as a means of gaining deeper insight into the situation within the Group and making decisions based on this information. Further information on non-financial factors can be found in the Group Sustainability Statement chapter.

Operating ROCE shows whether we generate a desired return for the Group on adjusted capital employed in operations, thus providing a benchmark for efficient capital allocation. The adjusted capital employed includes the sum of all property, plant, and equipment; intangible assets, and net working capital, adjusted for the effects of the assets of KB Signaling identified as part of the purchase price allocation. It should additionally be noted that KB Signaling is only included in operating EBIT for 4 months.

As a result of the improved operating EBIT, the reported operating ROCE in the 2024 fiscal year was 20.8% and moderately above the corresponding, comparable prior-year level (20.0%).

Operating ROCE (in %) is calculated as follows:

(operating EBIT/adjusted capital employed[14] as at December 31) × 100.

The number of employees as at December 31, 2024, was 32,549 (including leased personnel) and slightly down on the corresponding prior-year figure (33,319). The change is mainly the result of inorganic effects (company acquisition and disposal).

Events of material importance to business performance

The following events of material importance should be highlighted in the 2024 fiscal year:

BOOST/GREENFIELD/BROWNFIELD

The BOOST (Knorr-Bremse Operational Optimization Strategy and Transformation) program was launched in the 2023 fiscal year to safeguard Knorr-Bremse's sustainable growth and increase its sustainability. BOOST is divided into brownfield (housekeeping) and greenfield (expansion) activities. Since then, the first few actions for optimizing the product and investment portfolio have been implemented and already made a significant contribution to a continuous and lasting increase in profitability in 2024.

The acquisition of KB Signaling in August 2024 formed part of the greenfield activities. More information about this is listed in the following section.

Brownfield activities are divided into "fix it" and "sell it" actions. In terms of the first category, the organizational structure of the Commercial Vehicle Systems division has been simplified so that decisions can be made faster and more efficiently. Consequently, capital expenditure can be distributed better, and more profitable growth is made possible. In the Rail Vehicle Systems division, several areas such as warehousing, pricing, and the further expansion of aftermarket business in China have been identified and are planned to be optimized in the near future. In the "sell it" category, actions in the Commercial Vehicle Systems division have included the sales of the Safety Direct business unit, R.H. Sheppard, and the Ohio campus of Bendix Commercial Vehicle Systems LLC, Elyria, Ohio, US. Alongside that, the Kiepe Group was disposed of from the Rail Vehicle Systems division.

ACQUISITION OF KB SIGNALING

Through a purchase agreement dated April 19, 2024, and the subsequent closing of the transaction on August 30, 2024, Knorr Brake Holding Corporation, Watertown, New York, US acquired 100% of Alstom Signaling Inc., West Henrietta, New York, US, which was renamed KB Signaling Inc. at the time of closing and comprises the subsidiaries KB Signaling Operation LLC, Grain Valley, Montana, US and B&C Transit Inc., Oakland, California, US.

The acquisition sees Knorr-Bremse in North America stepping into the signaling technology business (control, command, and signaling; CCS), which the company wishes to enhance and internationalize decisively with new and digital solutions.

In the 2024 fiscal year, KB Signaling Inc. and its subsidiaries added revenues of € 101 million and a profit of € 10 million to consolidated earnings.

The preliminary purchase price for KB Signaling was € 621 million, which was paid in full in cash as of December 31, 2024. The final purchase price depends on the agreed closing accounts, which had not yet been conclusively agreed by the contracting parties by the time the consolidated financial statements were being prepared.

ISSUE OF A TWO-TRANCHE BOND

Knorr-Bremse AG issued a bond of a total amount of € 1,100 million in September 2024. The first green tranche from Knorr-Bremse, with a term of eight years, raised € 500 million and has a 3.250% coupon rate. The proceeds of this tranche are intended to be allocated to suitable green projects described in our Green Financing Framework, which was published on August 23, 2024. The projects are spread across four green categories: clean transportation, renewable energies, energy efficiency, and green buildings. Moody's Investor Services (Moody's) evaluated the framework and delivered a second-party opinion. Moody's assigned an SQS2 Sustainability Quality Score (very good), which confirms that the framework is in line with ICMA Green Bond Principles and LMA Green Loan Principles and also that it demonstrates a significant contribution to sustainability.

The further five-year tranche raised € 600 million and has a 3.000% coupon rate. The proceeds from this tranche are earmarked for general business purposes, including partial financing of the acquisition of the rail signaling technology business from Alstom Signaling North America. Moreover, part of the proceeds is being used to refinance debt maturing in 2025.

[14] Results from the reported capital employed in the amount of € 5,011 million reduced by the assets of KB Signaling.in the amount of € 356 million identified as part of the purchase price allocation.

DISPOSAL OF RUSSIA-BASED BUSINESS

In connection with the Russian invasion of Ukraine, Knorr-Bremse made the decision to dispose of Knorr-Bremse Systems for Commercial Vehicles OOO, Moscow, Russia, which is part of the Commercial Vehicle Systems division. Knorr-Bremse signed a sale agreement for the disposal group on November 29, 2023. The transaction was successfully completed in early July 2024, with the purchase price coming to € 1 million and the transaction producing a € 4 million loss on deconsolidation.

SALE OF THE KIEPE GROUP

The Kiepe Group companies allocated to the Rail Vehicle Systems division were disposed of as part of a portfolio adjustment which closed in late January 2024. The Kiepe Group comprises Kiepe Electric GmbH, Düsseldorf, Germany; and the subsidiaries Kiepe Electric Schweiz AG, Niederbuchsiten, Switzerland; Kiepe Electric S.r.l., Cernusco sul Navigilio, Italy; Kiepe Electric Corporation, Vancouver, Canada; Kiepe Electric LLC., Alpharetta, US; and Heiterblick Projektgesellschaft mbH, Leipzig, Germany. The buyer of the Kiepe Group is Heramba GmbH, Düsseldorf, Germany, for Kiepe Electric GmbH, Düsseldorf, and Heramba Holdings, Inc., Newark, US, for Kiepe Electric LLC., Alpharetta, US.

The sale price for 85 % of the shares was € 55 million. Knorr-Bremse maintains a put option to tender the remaining 15% interest to the buyer until December 31, 2025. Similarly, the buyer maintains a call option to acquire this interest until that same point in time. There was a € 5 million loss on deconsolidation that was recognized in the other financial result. € 1 million of the purchase price went to the Group in late 2023 and € 3 million in early 2024. The remaining purchase price receivable resulting from the sale of the company was written down in full as of December 31, 2024.

SALE OF R. H. SHEPPARD

R. H. Sheppard, allocated to the Commercial Vehicle Systems division, was disposed of as part of a portfolio adjustment which closed on December 20, 2024. R.H. Sheppard comprises R.H. Sheppard Co., Inc., Hanover, US and the associated company China Source Engineered Components Trading Corporation Ltd., Shanghai, China.

The sale price was € 16 million, which was paid in full in cash as of December 31, 2024. There was a € 58 million loss on deconsolidation that was recognized in the other financial result.

Business performance

As a rule, the charts and tables in the combined management report show IFRS figures. Operating EBIT is defined as earnings before interest, other financial result, and income taxes, adjusted for one-off effects.

Financial performance

2.59 GROUP AND DIVISIONAL KEY INDICATORS

in € million	Rail Vehicle Systems	Commercial Vehicle Systems	Other segments and consolidation	Group
				2024
Key figures				
Order intake	4,440	3,748	(2)	8,186
Order book (Dec. 31)	5,352	1,832	(2)	7,182
Capital expenditure (before IFRS 16 and acquisitions)	138	199	13	350
R&D costs	276	292	0	568
Condensed Statement of Income				
Revenues	4,044	3,842	(2)	7,883
Changes in inventory and own work capitalized	86	67	4	157
Cost of materials	(1,703)	(2,093)	(7)	(3,803)
Personnel expenses	(1,095)	(837)	(123)	(2,055)
Other operating income and expenses	(543)	(430)	93	(879)
Depreciation, amortization, and impairment	(164)	(199)	(29)	(392)
Earnings before interest and taxes (EBIT)	**625**	**350**	**(64)**	**911**
M&A activities	8	18	–	26
Restructuring expenses	1	17	–	18
Other expenses and income from one-off effects, e.g., in connection with litigation	(4)	16	–	12
Operating EBIT	**630**	**401**	**(64)**	**966**
Operating EBIT margin (as % of revenues)	15.6	10.4	–	12.3

in € million	Rail Vehicle Systems	Commercial Vehicle Systems	Other segments and consolidation	Group
				2023
Key figures				
Order intake	4,043	4,212	(3)	8,252
Order book (Dec. 31)	5,132	1,952	(2)	7,082
Capital expenditure (before IFRS 16 and acquisitions)	116	241	11	368
R&D costs	238	306	0	544
Condensed Statement of Income				
Revenues	3,748	4,180	(2)	7,926
Changes in inventory and own work capitalized	42	57	4	103
Cost of materials	(1,595)	(2,412)	(6)	(4,013)
Personnel expenses	(1,025)	(830)	(115)	(1,970)
Other operating income and expenses	(489)	(424)	88	(825)
Depreciation, amortization, and impairment	(149)	(173)	(29)	(351)
Earnings before interest and taxes (EBIT)	**532**	**398**	**(60)**	**870**
M&A activities	2	4	–	6
Restructuring expenses	–	6	–	6
Other expenses and income from one-off effects, e.g., in connection with litigation	2	9	–	11
Operating EBIT	**536**	**417**	**(60)**	**893**
Operating EBIT margin (as % of revenues)	14.3	10.0	–	11.3

The Knorr-Bremse Group's **order intake** was € 8,186 million and a slight 0.8% down year over year (€ 8,252 million). The strong demand in the rail vehicle market was largely able to offset the shrinking intake of commercial vehicle orders. The **book-to-bill ratio**, representing the ratio of incoming orders to revenues, came to 1.04 in fiscal 2024, just as it was in the previous year, representing a solid basis for 2025 and beyond. The **order book** as at December 31, 2024, amounted to € 7,182 million (previous year: € 7,082 million) and also grew to a new record level due to the robust order situation and to the acquisition of KB Signaling. This results in a forward order book[15] of 10.9 months. **Consolidated revenues** fell due to the sale of the Kiepe Group (€ 142 million) and the tense commercial vehicle market situation as well as exchange rates effects. KB Signaling's revenue of € 101 million had an offsetting effect. Consolidated revenue therefore fell slightly by 0.5% compared to the previous year (€ 7,926 million) to € 7,883 million. Currency-adjusted to actual rates in 2023, revenues would have been a slight 0.7% higher. Table → 2.59

While revenues in the Asia–Pacific and South America rose year over year, revenue developed slightly downward in Europe and North America. The Rail Vehicle Systems division recorded a moderate 7.9% rise in revenues year over year and increased its revenues in almost all regions. Revenues in the Commercial Vehicle Systems division were moderately down on the previous year by 8.1%. Table → 2.59; Table → 2.60

For the Group as a whole, the share of aftermarket revenues in total revenues increased very significantly from 39.5% to 43.1% due to rising aftermarket revenues alongside falling OE revenues (revenues categorized as OE and aftermarket as per management reporting).

Regional revenues developed as follows: Table → 2.60

[15] The forward order book is calculated by dividing the order book by the Group's average monthly revenues.

2.60 CONSOLIDATED REVENUES BY GROUP COMPANY LOCATION

in € million	2024	%	2023	%
Europe/Africa	3,751	47.6	3,886	49.0
North America	1,987	25.2	1,993	25.1
South America	176	2.2	149	1.9
Asia–Pacific	1,969	25.0	1,898	24.0
	7,883	**100.0**	**7,926**	**100.0**

The **cost of materials** was € 3,803 million (previous year: € 4,013 million) and decreased by a moderate 5.2% year over year particularly as a result of lower expenses in the Commercial Vehicle Systems division. This, as well as the reduction in the share of revenues accounted for by the Commercial Vehicle Systems division, , resulted in a **material cost ratio** of 48.2%, a significant 240 base points under the prior-year level (previous year: 50.6%). **Personnel costs** increased by a slight 4.3% to € 2,055 million (previous year: € 1,970 million), which was mainly the result of the first-time consolidation of KB Signaling and inflation-related adjustments of wages and salaries. With revenues declining slightly, the **personnel costs ratio** increased moderately from the previous year (24.9%) to 26.1% of revenues. The total net **other operating expenses and income** fell by € 55 million to € -879 million (previous year: € -825 million), in particular due to increased legal and consulting costs.

Research and development (R&D) costs in 2024 were € 568 million and thus a slight € 24 million higher than the previous year's level of € 544 million, underscoring the Group's long-term innovation priorities. Relative to revenues, the R&D ratio of 7.2% was also slightly up on the previous year (6.9%) due to revenues.

Operating **EBIT** of € 966 million increased moderately by € 73 million or 8.2% compared with the previous year. The operating EBIT margin improved moderately from the previous year (11.3%) to 12.3% and was therefore within the forecast of 11.5% to 12.5% in the 2023 Combined Management Report and the adjusted forecast of 11.5% to 13.0% in the September 30, 2024, quarterly report.

Adjustments were made when calculating the operating EBIT (see the chapter General statement by the Executive Board and achievement of objectives).

The negative **financial result** increased by a very significant € 169 million to € 266 million in the 2024 fiscal year compared to the previous year (€ 97 million). Higher interest income and improved net investment income were only partly able to offset greater currency translation and long hedge expenses as well as other non-recurring items associated with M&A activities.

The Knorr-Bremse Group's **income before taxes** therefore went down by 16,6% in 2024 and amounted to € 645 million (previous year: € 773 million).

The **tax rate** increased moderately in the 2024 fiscal year to 26.0% (previous year: 25.4%). In a year-over-year comparison, this increase is the result of higher non-deductible operating expenses due to deconsolidation.

This resulted in **earnings after taxes** of € 477 million or 6.1% of revenues in the 2024 fiscal year, compared with € 576 million or 7.3% of revenues in 2023. After deduction of non-controlling interests, earnings per share reached € 2.76 (previous year: €3,43).

Our **proposed dividend** for the 2024 fiscal year comes to € 1.75 per share. The desired payout ratio is, accordingly, around 60% of consolidated net earnings after taxes (previous year: 46%) and therefore outside the long-term range of 40% to 50%. Knorr-Bremse wishes to include its shareholders in the company's pleasing operational developments which have been diluted by the non-recurring, negative effects of M&A activities. Knorr-Bremse AG's (Individual Financial Statement) remaining unappropriated retained earnings of € 312 million (previous year: € 252 million) will be carried forward.

SEGMENT REPORT FOR DIVISIONS

Rail Vehicle Systems division

Order intake in the **Rail Vehicle Systems** division experienced robust year-over-year growth of 9.8%, from € 4,043 million to € 4,440 million. This positive development is primarily due to increased demand in the Asian and North American markets. The **order book** as at December 31, 2024, was worth € 5,352 million and up slightly on the prior-year level of € 5,132 million despite the sale of the Kiepe Group. The new orders from KB Signaling's books contributed an additional increase to this. Table → 2.58

The Rail Vehicle Systems division was able to record a robust **revenue increase** of 7.9% to € 4,044 million from the previous year (€ 3,748 million), although the prior-year revenues still included € 142 million of revenues for February to December 2023 from the Kiepe Group, which was deconsolidated at the end of January 2024. KB Signaling's revenue of € 101 million had an offsetting effect. The "slight increase" forecast for this division in the previous year's Management Report was therefore exceeded. The rise in revenues was primarily due to significantly increased aftermarket business in all regions as well as significant OE business growth in North America. In Europe, falling OE revenues in the area of light rail vehicles was more than able to be offset by greater OE revenue increases in nearly all other business areas as well as by higher aftermarket revenue. In North America, OE business profited from the newly acquired signaling business as well as from growth in the locomotive, metro, and passenger categories, which likewise was more than able to offset the declines in freight in particular as well as in light rail vehicles. The increased revenues in Asia were significantly benefited by growth and pull-forward effects in China's high-speed OE business and its aftermarket business. Thanks to the bigger increase in aftermarket business, its share of the division's total revenues rose to 54.0% (previous year: 51.6%) while the share of OE business came to 46.0% (previous year: 48.4%).

In 2024, the Rail Vehicle Systems division's **operating EBIT** rose by € 94 million to € 630 million due to volume and mix factors (previous year: € 536 million). The **operating EBIT margin** of 15.6% of revenues was moderately above the previous year's level of 14.3%, with a "solid increase" having been expected for this division by the forecast in the previous year's Management Report and was therefore achieved. Adjustments were made when calculating the operating EBIT (see the chapter General statement by the Executive Board and achievement of objectives as well as **Table → 2.59**).

The Rail Vehicle Systems division's **capital expenditure** of € 138 million in 2024 (previous year: € 116 million) went toward items such as automation projects that expand capacity, location optimization, and replacement investments. At € 164 million, **depreciation, amortization, and impairment** was significantly up on the previous year's level of € 149 million. The year-over-year increase in depreciation, amortization, and impairment is due in particular to exceptional depreciation and amortization for development projects and also due to increased capital expenditure.

R&D costs in 2024 came to € 276 million, thus increasing by a significant € 38 million, or 16.0%, from the previous year (€ 238 million). The R&D-to-revenue ratio of 6.8% was slightly higher than the previous year (6.4%), with revenues having seen a robust boost. Development activities concentrated on the industry trends derived from megatrends. These activities include, among other things, solutions for increasing transportation capacity, eco-friendliness, availability, life cycle management, and digitalization.

Commercial Vehicle Systems division

Order intake in the **Commercial Vehicle Systems** division in the 2024 fiscal year was € 3,748 million, a significant € 464 million decrease on the previous year (€ 4,212 million). The larger number of orders in South America was only partly able to compensate for the declining orders in other regions. The **order book**, at € 1,832 million as at December 31, 2024, saw a moderate € 120 million decline from the previous year (€ 1,952 million). **Table → 2.58**

Revenues, at € 3,842 million, were a moderate € 338 million down year over year (previous year: € 4,180 million), whereas the previous year's Management Report expected only a "slight decline." This decline is mainly due to lower truck production in Europe, Asia, and North America as well as significantly diminishing OE business, while aftermarket revenues remained slightly above the prior-year level. Owing to this development, the share of aftermarket revenues in the division's total revenues rose to 31.6% from 28.6% the year before. This increase resulted in a slight year-over-year decline of 3.0% in the OE share of total revenues. The categorization of revenues as OE or aftermarket is based on the management reporting.

Operating EBIT in the Commercial Vehicle Systems division was down a slight € 16 million, or 3.9%, year over year and came to € 401 million in 2024 (previous year: € 417 million). Nevertheless, the **operating EBIT margin** was able to increase from the previous year (10.0%) by a slight 40 basis points to 10.4%, which corresponds to the forecast in the previous year's Management Report. Adjustments were made when calculating the operating EBIT (see the chapter General statement by the Executive Board and achievement of objectives as well as **Table → 2.59**).

Capital expenditure in the Commercial Vehicle Systems division in 2024 decreased by a significant € 42 million year over year to € 199 million due to a generally lower level of investment. Key capital expenditure continued to go to the global provision of supplier tools as well as to equipment for the production of next-generation products and to footprint projects. **Depreciation, amortization, and impairment** in the Commercial Vehicles Systems division was € 199 million and thus a significant € 26 million higher than the previous year (€ 173 million). Despite capital expenditure going down from 2024, depreciation, amortization, and impairment increased in the 2024 fiscal year mainly as a result of exceptional depreciation and amortization in connection with the reclassification of GT Emissions Systems under assets held for sale and corresponding liabilities.

The division's **R&D costs** decreased slightly during the 2024 fiscal year to € 292 million (previous year: € 306 million). With a bigger decrease in revenues, the R&D-to-

revenue ratio went up slightly from 7.3% in the previous year to 7.6% in 2024. Research and development activities focused on the megatrends of road safety, automated driving, emission reduction, e-mobility and connectivity.

Financial position (financial development)

FINANCIAL AND LIQUIDITY MANAGEMENT

Our centralized financial and liquidity management system aims to fulfill two key objectives: the optimization of earnings and costs, and the reduction of financial risks. In addition, it makes the Group's financing and liquidity requirements more transparent. In our liquidity management, we adhere to the principle of always maintaining sufficient liquid funds to be able to meet our payment obligations at all times, while also being in a position to act whenever M&A opportunities arise.

Our most important source of finance is cash flow from operating activities. As a rule, external funds are raised by Knorr-Bremse AG – or, where required by financial law, by our respective holding companies in Asia and North America – and made available to Group companies as required. Liquidity management is also the responsibility of Knorr-Bremse AG and our respective holding companies in Asia and North America. Among other things, the latter organize a cash pooling system that – as far as legally possible – manages all the Group's cash and cash equivalents. Companies in countries with legal restrictions on the movement of capital (such as China, India and Brazil) finance themselves largely from local resources.

The investment of excess liquidity is governed by a Financial Asset Management policy and is the responsibility of the Group Treasury department. Our partners are exclusively banks and financial service providers with an investment-grade rating. Cash and cash equivalents, at € 2,263 million at year-end, was a significant 75.2% above the previous year's figure of € 1,291 million, which was mainly due to the issue of a bond in two tranches of a total amount of € 1,100 million. Their share of total assets was thus 23.5% after 15.7% at the end of the previous reporting period.

We strengthen our internal financing power and funds tied up in working capital by applying systematic net working capital management, including liquidity-optimizing instruments such as a sustainability-linked Supply Chain Finance Program and factoring. This boosts our metrics. Information on our utilization of financial instruments can be found in the Currency, interest rate, and liquidity risks and Financial instruments for risk minimization section of the Risk Report chapter.

KNORR-BREMSE GROUP'S FINANCING STRUCTURE

A € 750 million bond with an annual coupon of 1.125% and seven-year term was issued in June 2018. Rating agency Moody's has given this bond an A2 rating. The bond is being used to finance the Knorr-Bremse Group's growth while simultaneously optimizing our financing structure between equity and debt. The existing Debt Issuance Program (DIP) was updated as early as September 2020 and increased to € 3,000 million. The DIP expands our room to maneuver, allowing us to respond quickly to crises and fluctuation. At the same time, we are proactively increasing the Group's flexibility in order to also take advantage of growth opportunities.

In January 2022, a € 750 million syndicated loan linked to a sustainability rating (an ESG-linked loan) was taken out to safeguard long-term financing. The syndicated line of credit has a term of five years and can be extended by one year up to two times. Both extension options have now been exercised, taking the term to January 2029. The existing debt issuance program (DIP) was updated again in September 2023. A € 700 million corporate bond linked to sustainability criteria has been issued with a coupon of 3.25%, with the main purposes of financing the acquisition of Cojali S. L. and paying for the Bosch put option for the acquisition of the minority interests in Knorr-Bremse Systeme für Nutzfahrzeuge GmbH and Knorr-Bremse Commercial Vehicles Systems Japan Ltd. Rating agency S&P has given this bond an "A" rating.

Following a further update of the existing Debit Issuance Program (DIP) Knorr-Bremse AG issued an additional two-tranche bond of a total amount of € 1,100 million in September 2024. The first green bond from Knorr-Bremse, with a term of eight years, raised € 500 million and has a 3.250% coupon rate. The proceeds from this bond are going to appropriate green projects in the categories of clean transportation, renewable energies, energy efficiency, and green buildings in accordance with the Green Financing Framework of Knorr-Bremse AG. Moody's Investor Services evaluated the bond and issued a sustainability quality score of SQS2 (very good), which is confirmation of the framework's conformance to the ICMA Green Bond Principles and LMA Green Loan Principles and, moreover, of a significant contribution to sustainability. The five-year bond raised € 600 million and has a 3.000% coupon rate. The proceeds from this bond are earmarked for general business purposes, including partial financing of the acquisition of the rail signaling technology business from Alstom Signaling North America. Moreover, part of the proceeds is being used to refinance debt maturing in 2025.

Knorr-Bremse invested € 150 million of cash into a special fund in November 2020 to avoid negative interest and make use of excess liquidity. The special fund was dissolved in the third quarter of 2024. Table → 2.61

2.61 FINANCIAL LIABILITIES (DEC. 31)

in € million	December 31, 2024	December 31, 2023
Bonds and debt instruments	2,553	1,457
Lease liabilities	555	528
Liabilities resulting from options on minority interests	115	76
Liabilities towards credit institutions	66	74
Derivative financial instruments	47	8
Purchase price liabilities	45	63
Other financial liabilities	565	554
	3,946	**2,760**
Current	1,391	587
Non-current	2,555	2,173

CASH FLOW

Cash flow from operating activities

The cash inflow from operating activities in 2024 increased by a significant € 128 million year over year to € 1,042 million. Net income for the period decreased by a significant € 99 million year over year to € 477 million. The increase in operating cash flow is primarily due to non-cash expenses such as increased depreciation and amortization, non-cash changes in financial derivatives and other non-cash expenses and income, which reduced the net income for the period but have no impact on operating cash flow. This is mainly due to the fact that after gains from foreign currency valuation in the previous year, significant losses from foreign currency valuation were incurred in this financial year. The very significant change in interest income of € 22 million is mainly due to increased interest income from investments in the short-term money market. In line with the decreased pre-tax earnings, the income tax expense fell by a significant € 28 million. The significant € 55 million reduction in income tax payments in 2024 is based on capital gains tax paid on intragroup dividends that were received in the previous year. Table → 2.62

2.62 ABBREVIATED CASH FLOW STATEMENT

in € thousand	2024	2023
Consolidated net income (including minority interests)	477	576
Adjustments for		
Depreciation, amortization, and impairment losses on intangible assets and property, plant, and equipment	392	351
(Gain)/loss on the sale of consolidated companies and other business units	65	19
(Gain)/loss on the disposal of fixed assets	1	3
Non-cash changes in the measurement of derivatives	48	(37)
Other non-cash expenses and income	68	(24)
Interest result	47	69
Investment result	18	20
Income tax expense	168	197
Income tax payments	(204)	(259)
Changes of		
Inventories, trade accounts receivable, and other assets that cannot be allocated to investing or financing activities, including impairment of them	(56)	(120)
Trade accounts payable, provisions, and other liabilities that cannot be allocated to investing or financing activities	18	120
Cash flow from operating activities	**1,042**	**915**
Cash flow from investing activities	**(750)**	**(411)**
Cash flow from financing activities	**630**	**(398)**
Cash flow changes	**922**	**106**
Change in cash funds resulting from exchange rate and valuation-related movements	25	(35)
Change in cash funds resulting from changes to the group structure	-	1
Change in cash funds	**947**	**72**
Free cash flow	**730**	**552**

Cash flow from investing activities

The cash flow from investing activities in the 2024 fiscal year rose very significantly by € 339 million to € 750 million.

The cash outflows for the acquisition of consolidated entities, mainly due the acquisition of KB Signaling in the Rail Vehicle Systems division, amounted to € 636 million during the 2024 fiscal year.

The cash outflows for capital expenditure on intangible assets and property, plant and equipment fell by a moderate € 29 million to € 346 million.

The proceeds from the sale of financial assets in the 2024 fiscal year rose by a very significant € 148 million to € 193 million, which was mainly caused by the dissolution of a special fund launched in the 2020 fiscal year.

Cash flow from financing activities

The cash inflow from investing activities in the 2024 fiscal year rose by € 1,028 million to € 630 million.

The cash inflow in the 2024 fiscal year mainly results from the corporate bond issued in September for a total amount of € 1,100 million. Alongside that, the dividend disbursement of € 264 million was significantly higher than in the previous year (€ 234 million). The settlement of derivatives allocated to financing activities produced a cash outflow of € 34 million in the 2024 fiscal year, after a cash inflow of € 10 million in the previous year.

Free cash flow

Free cash flow[16] amounted to € 730 million and was therefore a very significant € 178 million higher than the previous year's figure of € 552 million. This is mainly attributable to the significant improvement in the cash flow from operating activities, which was up € 128 million on the previous year. Furthermore, capital expenditure on property, plant and equipment went down by € 26 million.

LIQUIDITY

The very significant increase in cash and cash equivalents to € 2,230 million (previous year: € 1,283 million) was primarily the result of the positive balance of cash inflow from operating activities (€ 1,042 million), cash outflow from investing activities (€ 750 million), and cash outflow from financing activities (€ 630 million). Net liabilities[17] amounted to € 912 million in 2024 after € 627 million compared to previous year. Table → 2.63

2.63 CASH FUNDS (DEC. 31)

in € million	2024	2023
Cash and cash equivalents (Jan. 1)	1,283	1,211
Cash flow from operating activities	1,042	915
Cash flow from investing activities	(750)	(411)
Cash flow from financing activities	630	(398)
Other	25	(34)
Cash funds (Dec. 31)	**2,230**	**1,283**

The ratio of the Group's net debt to equity was 29.2% (previous year: 21.6%). The year-over-year development is the result of a € 284 million increase in net debt, while equity rose moderately. The Group has access to approved credit facilities totaling € 2,633 million (including a syndicated and ESG-linked credit facility of € 750 million), of which 74.7% remained undrawn at the end of the fiscal year. Interest rates on liabilities conform with prevailing market terms, according to maturity.

The other financial obligations as at year-end 2024 were mainly comprised of obligations for capital expenditure projects (€ 36 million) as well as other obligations (€ 162 million). The other liabilities item includes loan commitments and bank guarantees. For further details, see also chapters H.7 and H.8 of the Notes to the Consolidated Financial Statements.

With our ability to generate cash flows from operating activities, our cash and cash equivalents, undrawn credit facilities, and our existing credit ratings at year-end, we are confident that we have sufficient flexibility to cover our capital requirements for achieving sustainable organic growth and making strategic acquisitions.

Rating

Two external rating agencies, Standard & Poor's and Moody's, have been rating the Knorr-Bremse Group's financial standing since 2000. The ratings were investment grade from the outset. The ratings from S&P (A- with a stable outlook) and Moody's (A3 with a stable outlook), received in 2023, were affirmed in 2024. Both agencies maintained a stable investment-grade rating in acknowledgment of the Group's continuing stable liquidity and strong competitive position, notably through high levels of research and development spending.

[16] Free cash flow is calculated by deducting disbursements for capital expenditure on property, plant, and equipment and intangible assets from the cash flow from operating activities, and by adding proceeds from the sale of property, plant, and equipment and intangible assets to the cash flow from operating activities.

[17] This is the result of offsetting (netting) cash and cash equivalents against bank loans, bonds, notes, lease liabilities, and non-current bills of exchange.

ASSETS AND CAPITAL STRUCTURE

The Group's **total assets** increased a significant 16.5% to € 9,614 million from their December 31, 2023, level (€ 8,249 million), which was mainly due to the issue of a bond of a total amount of € 1,100 million. As of the end of 2024, committed assets represented 121.9% of revenues. Table → 2.64

2.64 BALANCE SHEET RATIOS

in € million	2024	2023
Net debt/(cash) (Dec. 31)	912	627
Gearing (Dec. 31)*	0.3	0.2
Net working capital (NWC) (Dec. 31)	1,296	1,131
Net working capital in days' sales	59.2	51.4
Turnover rate – inventories**	6.5	6.9
Receivables/days' sales outstanding***	63.2	61.7
Equity ratio (Dec. 31)	32.5%	35.2%
Total assets (Dec. 31)	**9,614**	**8,249**

* Indicates the ratio of net debt to equity.
** Indicates how often inventories are turned over each year; the turnover rate is calculated by dividing annualized sales revenues by inventories.
*** The number of days that elapse between the invoicing date and the date of payment receipt.

Net working capital, defined as the sum of inventories, trade accounts receivable and contract assets less trade accounts payable and contract liabilities as well as current bills of exchange recognized in the other financial assets/liabilities, stood at € 1,296 million as at December 31, 2024, and was thus higher than the previous year (€ 1,131 million). Measured in terms of days' sales, this corresponds to a commitment of 59.2 days (previous year: 51.4 days). The increase was mainly due to the calculation logic for the acquisition of KB Signaling, as only 4 months of revenue were included here.

The Knorr-Bremse Group reported an **equity ratio** of 32.5% as at December 31, 2024, very significantly below the previous year's level of 35.2%, which was mainly due to the issue of a bond of a total amount of € 1,100 million. Table → 2.65

2.65 EQUITY

in € million	2024	2023
Subscribed capital	161	161
Other equity	2,884	2,675
Equity attributable to the shareholders of Knorr-Bremse AG	**3,045**	**2,836**
Non-controlling interests	82	68
Total equity	**3,127**	**2,904**

As for the **other balance sheet items**, the non-current assets increased by a total of € 468 million to € 4,198 million. The other financial assets decreased, whereas deferred tax assets increased very significantly, which is mainly due to the acquisition of KB Signaling. Current assets increased by a significant € 897 million to € 5,416 million. This is mainly the result of the € 972 million increase in cash and cash equivalents to € 2,263 million from the issue of a bond of a total value of € 1,100 million. The two tranches of this bond are the main reason for the € 383 million increase in the non-current financial liabilities to € 2,555 million, with a countereffect from the reclassification of the € 750 million bond issued in 2018, maturing in June 2025, to the current financial liabilities. These current financial liabilities increased by € 804 million to € 1,391 million.

Assets of € 16 million (previous year: € 221 million) and liabilities of € 10 million in connection with assets held for sale (previous year: € 153 million) were removed from the balance sheet line items. This is the result of the sale of the disposal group consisting of GT Emissions Systems companies.

CAPITAL EXPENDITURE

The Knorr-Bremse Group's capital expenditure on property, plant and equipment and intangible assets reflected the Group's growth and innovation priorities. **Capital expenditure on property, plant, and equipment** decreased year over year by a moderate € 18 million to € 233 million, thus representing 3.0% of revenues (previous year: 3.2%). Capital expenditure was focused mainly on expansion investments in production plant and equipment, automation projects, location optimization, and replacement investments. Moreover, capital expenditure on intangible assets was incurred for IT projects, among other things. Table → 2.66

2.66 CAPITAL EXPENDITURE, DEPRECIATION, AND AMORTIZATION

in € million	2024	2023
Capital expenditure on property, plant and equipment	233	251
Investments in intangible assets	117	118
Depreciation, amortization, and impairment	392	351

Supplementary Report

Details are available in the Notes to the Consolidated Financial Statements in chapter H.2. Events after the Reporting Date.

Report on Risks, Opportunities, and Expected Developments

Report on risks and opportunities[18]

Risk management system

PRINCIPLES AND OBJECTIVES

As an international corporate group with a global presence, Knorr-Bremse encounters both risks and opportunities in the course of its entrepreneurial activities. The goal of risk management is to identify risks across the Group and minimize their potential consequences on the Group's anticipated financial performance and position. The system should likewise identify and leverage opportunities to boost stakeholder value in the long term. The focus is on early, systematic identification and analysis of potential risks and opportunities in order to provide sufficient scope for effective risk management, including the timely introduction of suitable countermeasures. The basis for this is a transparent, systematic risk reporting system that covers all business processes.

We always carefully evaluate opportunities and risks in all our business activities. They include risks and opportunities from operational areas as well as environmental, social, and governance (ESG) risks and opportunities. Knorr-Bremse encourages all employees to proactively report risks and requires them to deal with risks in a responsible manner. In addition to regular reporting periods, an internal ad-hoc reporting process enables risks of major significance to be identified at an early stage and managed as rapidly as possible.

The risk management system established in the Group is subject to continuous further development, including adjustments to internal and external requirements.

ORGANIZATION AND PROCESS

Our risk management structures and procedures are aligned with our overall organizational structure and anchored in a corporate policy that includes clear definitions of responsibilities and reporting structures. Under the direction of Group Controlling & Risk Management, our analysis of potential risks is conducted quarterly in the form of a worldwide bottom-up risk inventory covering all Group companies. Company locations report potential risks in quantified form to regional managers, who in turn pass on the aggregated data to divisional managers. An essential component of regular risk reporting is a summary Group risk report; this is discussed and adopted in the Risk Committee. The participants in the Risk Committee are the heads of finance with regional responsibility, the heads of other governance functions and the global quality managers. The Group risk report is then presented to the Knorr-Bremse Group's Executive Board at quarterly intervals and explained and discussed at the relevant Executive Board meeting. The Supervisory Board's Audit Committee conducts an in-depth review of the risk report at least once a year and also on an ad-hoc basis if necessary.

The identified risks are assigned to one of 14 specific risk categories that are aligned with the company's value chain. Within the company's departments, particular attention is paid to identifying sustainability-related risks and this will be expanded further in the future. In relation to the evaluation of environmental, social, and governance (ESG) risks, there is an upstream "materiality assessment" process for identifying the issues relevant to Knorr-Bremse in advance. Building on this process, the risk management process comprises a total of six stages, from identification through evaluation, mitigation, and aggregation to reporting and monitoring, including for ESG risks. The identified risks are evaluated from an overall perspective in terms of their impact on earnings and liquidity and likelihood of occurrence. The priority is to present the risk portfolio transparently, together with an appraisal of effective risk limitation measures. Those responsible for risk management provide quantitative and qualitative assessments of these measures in their reports. Possible measures include the avoidance, reduction, transfer, or acceptance of the respective risk. The internal control system, among other things, represents a form of mitigation for identified risks.

As part of this process, the identified and assessed gross risk is offset to some extent by the operational measures that contain the risk and reduce the potential damage, and the remaining risk indicates the net risk before the likelihood of occurrence. Factoring in the probability of occurrence allows us to quantify the weighted net risk, the "expected value." For the purpose of provisioning for possible loan losses on the balance sheet, appropriate provisions and loss allowances must be recognized in the annual and consolidated financial statements in compliance with accounting regulations. The valuation of gross risk as

[18] This section forms part of the Knorr-Bremse Group Sustainability Statement for the fiscal year from January 1 through December 31, 2024.

well as the valuation of net risk is done after deducting the risk provisions.

In the subsequent risk aggregation phase, the individual risks are aggregated based on identity of cause and allowing for possible interdependencies. Furthermore, in consultation with the divisions and those responsible for risk management, the Risk Management function performs a plausibility check on the net risk calculation and validates compliance with guidelines. This process of aggregation, the performance of a plausibility check and validation is also part of the Risk Committee's quarterly agenda.

The aggregated expected values of the risks are classified in accordance with the risk's materiality to the Group as follows:

- Low (< € 10 million)
- Medium (€ 10 million to € 50 million)
- High (> € 50 million)

Unless otherwise stated, the impact on EBIT is always considered when assessing a risk or opportunity.

The risk management software that has been rolled out makes it possible to evaluate individual risks in risk scenarios ("best case," "most likely case," and "worst case"). The risk reporting in 2024 was based on the most likely case, whereas an average of best case, most likely case, and worst case was assessed at year-end 2023. This change in the methodology did not produce any shifts in the classification of the risk categories for the previous year.

The early risk detection system is integrated into the risk management system. As part of the introduction of risk management software, a possibility to assess long-term risks was created in addition to assessments of short- and medium-term risks. Recording these long-term issues, especially abstract and strategic ones, ensures that risks are identified at an early stage and managed.

To evaluate the Group's risk-bearing capacity, the risks' potential impacts on profit are analyzed in a Monte Carlo simulation (confidence level: 95%) which also incorporates correlation effects. If the risk and opportunity profiles are symmetrical, the opportunities' potential impacts on profit are considered as well. The aggregated risks and opportunities are compared with the recognized equity and consolidated net income of the Knorr-Bremse Group, which serve as its risk coverage potential.

INTEGRATION OF INSIDE-OUT PERSPECTIVE SINCE 2024

For sustainability-related risks and opportunities, the evaluation assesses the short-, medium-, and long-term impacts on the Knorr-Bremse Group and, moreover, looks at the "inside-out" perspective, i.e., the impacts on humans and the environment caused by the Knorr-Bremse Group. Environmental and social risks as well as the human rights risks associated with them are identified across the value chain and integrated into the risk management process.

RISK REPORTING

The Executive Board provides the Supervisory Board's Audit Committee with regular, timely, and comprehensive updates on all risks and opportunities of relevance to the Group. Process-integrated monitoring is the Risk Committee's task. The examination and process-independent monitoring of the risk management process is the task of Internal Audit. The Knorr-Bremse Group thus has a reporting and control system in place with the aim of implementing efficient and effective risk monitoring and management globally.

KEY FEATURES OF THE INTERNAL CONTROL SYSTEM (ICS)

The internal control system (ICS) is an element of internal governance for the purpose of process-integrated and organizational monitoring measures and controls that are intended to safeguard the accuracy of external financial and non-financial reporting. The Knorr-Bremse ICS sets out Group-wide specifications for the design of the internal control system for accounting processes and processes for non-financial operating areas, including the controls related to sustainability.

The job of the financial ICS is to safeguard the propriety and reliability of accounting processes. The non-financial ICS focuses on the propriety and reliability of non-financial operating processes.

We use our ICS to ensure compliance with the relevant legal requirements and applicable Group guidelines. The ICS encompasses the principles, procedures, and measures which Executive Board has implemented within the company for the purpose of handling risks systematically and transparently.

The fundamental principles of the ICS are the four-eyes principle and the segregation-of-duties principle. Group companies are responsible for complying with existing standardized Group-wide rules and country-specific regulations, and for documenting the internal controls they use to ensure reliable and appropriate financial and non-financial reporting. The risk control matrix with our most important controls has been introduced in all Group companies. These controls have their effectiveness tested regularly in our Group companies using the principle of materiality and in combination with a risk-based approach. The financial ICS is at a higher level than the non-financial ICS, however the non-financial ICS is continuously being improved further.

Group Controlling & Risk Management plays a supporting and coordinating role and centrally files the documentation of risks and controls and the regular control assessment. The Audit function also verifies the existence and effectiveness of the documented processes during its independent audits. Group Controlling & Risk Management reports to the Executive Board on the effectiveness of the control system in relation to accounting controls and operating controls. The Executive Board regularly provides the Supervisory Board with a detailed breakdown of ICS and Internal Audit results once a year as part of the Audit Committee meeting.

The most important instruments, control and hedging routines in the accounting process and operational processes are:

- Knorr-Bremse AG's accounting guideline defines the accounting process in the individual companies and within the Group. The guideline covers all relevant IFRS rules and is regularly updated by the Corporate Accounting function.
- Knorr-Bremse's Group guidelines lay out the Group-wide specifications for operational business processes in order to minimize or avoid risks within the processes.
- All accounting processes are subject to multi-level validation in the form of spot checks, plausibility checks and other controls by the operating companies, the divisions, and the Group Controlling, Group Accounting/Taxes and Internal Audit functions. The controls relate to various aspects, such as the reliability and adequacy of IT systems, the completeness and accuracy of financial reporting, and the completeness of provisions.
- The fundamental ICS principles – the four-eyes principle and segregation-of-duties principle – apply generally, but in particular to the commercial processes that trigger entries in the consolidation system. For example, depending on the amounts involved, orders or invoices may have to be signed off by the head of department, Management Board, or Executive Board. The process from ordering through to payment is secured by separating the functions of employees in Purchasing and Accounting.
- Access authorizations control access to the consolidation system; this is reserved for a selected group of employees in Corporate Accounting. Data that is entered for Group companies is checked in a multi-level process. First, it is validated by the Group company itself, then by the relevant segment's Controlling function, and finally by Corporate Accounting.

To ensure that financial statements are prepared correctly, we carefully consider significant regulations pertaining to and new developments in accounting and reporting. Particular attention is paid to the accounting treatment of construction contracts based on the percentage-of-completion method, impairment testing of goodwill, and the reliability of qualitative and forward-looking statements in the Combined Management Report.

The breakdown in the table below shows the aggregate expected value (respective net risk by likelihood and after risk provisions) for the Group per risk category. Table → 2.67

2.67 KNORR-BREMSE GROUP – RISK CATEGORIES*

	Low (< € 10 million)	Medium (€ 10 million to € 50 million)	High (> € 50 million)
Strategy, M&A/PMI	■		
Legal & Regulatory	■		
Compliance		■	
Research & Development	■		
Purchasing			■
Market & Customers Project Management	■		
Logistics	■		
Production	■		
Quality & Product Liability	■		
HR		■	
Finance & Treasury	■		
IT Systems & IT Security		■	
Sustainability	■		
External/Other	■		

* Tax risks are not comparable with other risks due to various underlying measurement parameters, for which reason tax risks are not presented in the table.

Significant changes in the risk portfolio since the previous year arose primarily from the risk categories “purchasing,” “market & customers project management,” “HR,” and “IT systems & IT security.”

Risks in the Purchasing category have increased since the previous year. There remains risk from the global market price rises for energy, raw materials, and wages. In particular, geopolitical uncertainty, trade conflicts, and natural catastrophes may fuel inflation further. These tensions could result in higher production costs, supply chain disruption, or further risks within our supplier structure. The change of government in the US and the associated changes in US economic policy might lead to increased costs from the raised tariffs on US imports.

The risk assessment in the Market & Customers Project Management risk category is also at a lower level than in the previous year. The risk for projects and production in general, caused by potential energy shortages for example, has relaxed further after the previous year, and associated revenue losses are therefore deemed to be less likely.

The risk portfolio in the Human Resources category has increased since the previous year. A pivotal factor in this is the potential restructuring costs as part of the optimization of the company footprint.

The IT Systems & IT Security category risks have similarly increased since the previous year, although this has not led to any shift of the categories. Due to the growing volumes of data and increasing digitalization, the risks from hacker attacks and cybercrime are rising. Furthermore, unplanned IT integration costs increase the risk portfolio.

The Knorr-Bremse Group’s individual risk categories are explained in more detail below:

STRATEGIC RISKS, RISKS ASSOCIATED WITH MERGERS AND ACQUISITIONS (M&A) AND POST-MERGER INTEGRATION (PMI)

As a technology leader[19] in the rail and commercial vehicle sectors, we are regularly exposed to the efforts of both established competitors and new market players to gain market share at our expense. Mergers and acquisitions among our competitors should be noted in this context. We counter such strategic risks with a sustainable innovation strategy and intensive cultivation of customer relationships so we can continue to respond optimally to customer needs in terms of the technology, quality and pricing of our products and services. As well as continuously developing our existing product portfolio, we focus in particular on averting the risks of unsuccessful or delayed

[19] Not audited; not subject to auditor’s opinion

entry into new, promising product areas. For this purpose, we take steps to ensure the timely identification, evaluation and efficient implementation of development projects aimed at opening up new product areas. This applies in particular to product ranges linked to the current megatrends of urbanization, sustainability, digitalization and mobility. As a systems supplier, we are determined to continue offering our customers the greatest possible benefits in all these fields. Another risk to be mentioned is that the Chinese government has for years been endeavoring to strengthen the local economy and thus the autonomy of the country by placing a stronger obligation on companies to use local Chinese companies in the supply chain. Knorr-Bremse is responding to this with adjustments in its presence and positioning in the country in order to meet the changed requirements. Risks may also arise from strategic decisions involving portfolio adjustments or changes. These may take the form of restructuring costs, value adjustments or similar risks – for example, in the event of relocations or closures.

Risks can arise from both strategic and operational perspectives during the M&A process itself and in the post-merger integration (PMI) phase. Among other things, from a financial perspective such risks include possible mispricing, which we seek to prevent by conducting extensive due diligence. Other risks include higher than expected integration and onboarding costs, or delays during the integration process and subsequent changes to the purchase price. Risk provisions are recognized for these in the balance sheet where necessary. To reduce these risks, we involve employees holding key positions in the integration process at an early stage. This makes it easier to ensure effective integration with our corporate culture, working conditions, systems, and processes. As a general rule, Knorr-Bremse participates in the risks of its investments in line with its respective interest and, as a result, may also be subject to equity price risks if an investment is publicly listed. In addition, risks may also arise from the sale of business units.

LEGAL AND REGULATORY RISKS

Its worldwide presence means that Knorr-Bremse operates in a wide variety of different legal systems. Current and potential future changes to these legal systems give rise, among other things, to risks associated with tax, antitrust, patent, environmental, labor, contract, and data protection law as well as risks arising from class action litigation. To avoid or minimize litigation and any potential financial exposure, strategic risks or reputational damage that might ensue, we rely on our Compliance Management function and Tax department, as well as the legal reviews and assessments carried out by our Legal department. For complex issues, we also seek the support of external specialist attorneys and tax experts.

To counter the potential damage to our business resulting from imitations and product piracy, the company relies on the Patent department's in-depth scrutiny of our markets, its rigorous defense of our interests, and close collaboration with government agencies when necessary. Details of current proceedings can be found in the Notes to the Consolidated Financial Statements under H.9. Legal Disputes and Litigation.

In addition, risks may potentially arise from changes to legal regulations, such as breaches of the Supply Chain Due Diligence Act.

COMPLIANCE-RELATED RISKS

Corruption, anti-competitive practices, conflicts of interest, fraud, and embezzlement are identified by the compliance management system as potential compliance risks. These subjects were determined based on a compliance risk analysis which involves selected business units and markets. As part of a worldwide compliance risk analysis, possible compliance risks were compiled and assessed on the basis of risk scenarios. Provisions for tax risks were recognized in the consolidated financial statements as at December 31, 2024, unchanged since the previous year, for issues that were identified as part of internal investigations. As a global company, we maintain business relationships with customers in countries that are subject to export control regulations, embargoes, economic sanctions, and other forms of trade restrictions. New or broadened sanctions in countries where we have activities could result in a limitation of our business activities.

RISKS ASSOCIATED WITH RESEARCH AND DEVELOPMENT

Both product development and product optimization processes are generally associated with a range of risks, in particular time-to-market delays and deviations from product quality requirements – e.g., in respect of approval procedures. It is also important to safeguard against potential infringements of intellectual property (IP) rights. In addition, costs may overrun the original budget, especially in relatively long-term development projects. To meet these challenges, we have a global, highly qualified team of R&D specialists, cutting-edge R&D facilities, efficient and effective processes, all under tight project control. As well as the Technology Center at our Munich head office, equipped with the latest measuring stations and test rigs, we should also mention our R&D Centers in Schwieberdingen, Germany, Budapest, Hungary, Pune, India, and in Elyria, Ohio and Watertown, New York, US.

RISKS ASSOCIATED WITH PURCHASING

Potential risks in the procurement process include, along with isolated supply shortages, in particular late deliveries, quality defects, and rising supplier prices that cannot always be passed on in full to customers, or only after some time has elapsed. Furthermore, there is also a risk of possible insolvencies among suppliers. We counter this risk early on in the selection process and also by tracking the financial stability of our suppliers as part of our continuous monitoring program. Moreover, we have selected multiple suppliers for strategically relevant product components in order to reduce our dependency on individual suppliers as far as this is commercially prudent. We conclude framework agreements with our suppliers to minimize supply risks. We also pool procurement volumes to obtain more advantageous purchasing terms.

Looking forward, we see further risks which originate mainly from geopolitical developments (e.g., the change of government in the US and the associated import tariffs as well as wars in the Middle East and Ukraine and freight route blockades).

MARKET RISKS AND RISKS IN CUSTOMER PROJECT MANAGEMENT

Even after drawing up a detailed sales budget that fully reflects market expectations for a given fiscal year, unexpected market developments or individual customer risks, in particular, can easily cause revenue targets and associated earnings targets to be missed. With respect to markets, the Commercial Vehicle Systems division's business is the main concern because it is generally more sensitive to cyclical fluctuations. Any decline in vehicle production has an impact on revenues from the division's original equipment (OE) business. Irrespective of order trends, customer pressure on prices may also have a negative impact on margins. In the Rail Vehicle Systems division, where project business plays a more important role, we focus not just on market movements, but also on possible strategic and operational project delays. In addition, price pressures can arise in both segments as a result of customers merging. Thanks to the Group's broad global base, the effects of regional or segment-related market developments can often be offset, even across the divisions.

Customer-project-specific risks may arise in the Rail Vehicle Systems division in particular, owing to the division's reliance on project-related business. Such risks include, in particular, budget overruns, possibly including in the form of currency and inflation risks in the project environment, schedule overruns and divergences from agreed product specifications. For instance, failure to deliver on time or with the warranted product features may result in additional remediation costs or lead to contractual compensation payments or penalties. To avoid such risks, we rely on effective project management and controlling, fine-grained monitoring, and intensive communication with our customers through our global key account managers.

The current geopolitical developments, especially the change of the US government and the associated import tariffs, the situation in the Middle East, and the blockade of freight routes, may have impacts on both divisions' sales volumes and result in lost or delayed projects among customers. On the other hand, the risk of potential energy shortages has lessened further since the previous year and it is deemed less likely that there will be lost projects due to them.

LOGISTICAL RISKS

Material risks affecting logistics include possible delays in the supply chain to Knorr-Bremse as well as in the company's own supply chain through to its end customers. Such delays may result in production delays or downtime, which in turn may cause bottlenecks in deliveries to our customers. We counteract these risks by means of an integrated planning process that is closely coordinated with our production and delivery schedules. Furthermore, there is continuous monitoring of the risks and measures within this field from the perspective of suppliers, production, and customer projects. Optimized warehouse management also enables us to achieve a balance between availability on the one hand and capital-efficient inventories on the other. Even so, special freight (e.g., air freight) and other measures to eliminate delivery bottlenecks may be required, entailing higher logistics costs. Moreover, blockades of freight routes (e.g., the conflict in the Middle East) may result in delays and additional costs.

PRODUCTION-RELATED RISKS

Bottlenecks in production can result from a lack of manpower or insufficient mechanical production capacity, also because of machine downtime. Risks may also arise in connection with the termination of supply contracts with major suppliers and risks posed by bottlenecks for components. We counteract these risks firstly by means of coordinated production planning and contractual covenants, and secondly by relying on state-of-the-art production facilities and regular maintenance, investing in replacement equipment whenever required to avoid equipment obsolescence. Integrated quality controls enable us to identify and remedy quality defects at an early stage so we can avoid rejects, waste, and reworking. Our globally standardized manufacturing concept, the Knorr-Bremse Production System (KPS), ensures that all production locations meet our high quality standards. Comprehensive occupational safety and environmental protection standards have also been defined within the Group.

RISKS ASSOCIATED WITH QUALITY AND PRODUCT LIABILITY

The primary objective of quality management is to ensure that we reliably fulfill our customers' requirements. As a manufacturer of safety-relevant products, quality is an especially high priority and has been deeply embedded in our corporate values for many years. If, despite comprehensive quality assurance measures, we were on occasion to supply our customers with products that did not meet the expected quality standards, there is a risk of incurring additional costs for rectifying defects or settling customers' warranty claims. In such cases, we work closely with our customers to promptly find and implement solutions. Our overall exposure to quality and product liability risks is offset by, among other things, provisions that cover these risks through our best estimates.

RISKS ASSOCIATED WITH HUMAN RESOURCES (HR)

To mitigate the still-high risk of employee turnover in a targeted way, we offer attractive remuneration packages, good working conditions, and individual professional development opportunities. We are addressing the shortage of skilled workers with our own management development program aimed at recruiting young, talented, and capable employees and retaining them in the company over the long term. Nevertheless, the departure of highly qualified employees can result in a loss of expertise and resource bottlenecks. In addition to running in-house training courses, we also undertake targeted marketing in universities and offer dual vocational education and training (work-study programs). The risk from the ongoing development of pension obligations is relatively low in view of the total assets; some pension obligations have already been outsourced to external pension funds.

RISKS ASSOCIATED WITH FINANCE AND TREASURY

Currency, interest rate, and liquidity risks are described in detail in chapter H.1 of the Notes to the Consolidated Financial Statements. Detailed information can also be found below in the Risk Report on the Use of Financial Instruments. Where necessary, risk provisions are recognized for these in the balance sheet.

Moreover, this risk category includes tax risks, too. The Knorr-Bremse Group and its subsidiaries operate in many countries globally and, for this reason, are subject to numerous different pieces of legislation and tax audits. Any changes in legislation as well as case law and differing legal interpretations by taxation authorities, especially in relation to cross-border transactions, may be associated with significant uncertainty. It is therefore a possibility that recognized provisions prove to be insufficient and, from this, there arise negative impacts on the Group's consolidated earnings and cash flow.

Any changes or findings made by taxation authorities are monitored continuously by the tax department, and actions are taken as needed.

RISKS ASSOCIATED WITH IT SYSTEMS AND IT SECURITY

Insufficient system stability and inadequate data availability pose fundamental IT risks. Redundant data centers protect us against possible data loss and the failure of critical systems. Cyberattacks on our IT systems pose a serious threat. We protect ourselves through an information security management system, which is put into practice with Group-wide IT organization, a dedicated Cyber Monitoring and Defense Center (CMDC), an information security program, and various IT security solutions. This system is adapted constantly and kept up to date with a continuous improvement process. We train our employees on the topic of information security and regularly inform them about current threats and the appropriate practices regarding these. Further risks may also arise in connection with, among other things, software licenses.

RISKS ASSOCIATED WITH SUSTAINABILITY

The Sustainability category comprises potential risks identified in connection with issues pertaining to the climate and environmental protection as well as the protection of human rights.

Physical as well as transition risks are relevant to the climate and environment. The potential transition risks identified in connection with the transition to a low-emission economy concern, for example, the rising costs of energy and materials as a result of increasing regulation and carbon pricing as well as sanctions for non-compliance with regulations and conditions. The general uncertainty associated with the transformation represents a potential risk for Knorr-Bremse as an inability to plan reliably may result in untargeted investment in new technologies or delays to the start of transformation processes.

With climate change advancing further, physical climate risks in particular, such as extreme weather events, and chronic climate risks grow in relevance. These may result in damage to property as well as interruptions in our business areas and in the supply chain.

In relation to human rights, we prioritize the risks that can have particularly grievous consequences for life, limb, or mental health, namely occupational health and safety as well as forced and child labor, regardless of the likelihood of such risks materializing.

The company deals with the above risks at an early stage in order to be able to react to them with appropriate measures or take preventive action in all areas.

OTHER RISKS

The Other Risks category includes all risks that do not fall into one of the above-mentioned categories. These include, for example, potential reputational damage, or financial losses as a result of external activities, which we currently rate as low.

Risk report on the use of financial instruments

CURRENCY, INTEREST RATE, LIQUIDITY, COMMODITY PRICE, AND CREDIT RISKS AND FINANCIAL INSTRUMENTS FOR RISK MINIMIZATION

As a result of its international activities and the volatility of the world's financial markets, the Knorr-Bremse Group is exposed to various financial risks, especially market risks, liquidity risks and credit risks. Company policy aims to limit these risks through systematic financial management. The Group therefore utilizes a number of financial instruments, such as forward exchange transactions, currency swaps, currency options and interest rate swaps. Derivative financial instruments are used solely to hedge existing positions (hedged items) against interest rate and exchange rate exposure (in line with market risk).

HEDGING OF FOREIGN CURRENCY RISKS

Forward exchange transactions and currency options are used solely to hedge the currency risks on selected assets and anticipated cash flows within the Knorr-Bremse Group. Knorr-Bremse AG's hedging transactions are designed to reduce risks arising from exchange rate fluctuations. We always enter into a separate hedging transaction for each individual major project. All financial derivatives and their hedged items are regularly monitored and measured. The effectiveness of the hedging relationship is also monitored, and hedges are adjusted under certain circumstances.

The high level of local manufacturing and local supply within the respective currency zones established by the Group's geographical diversification in recent years has minimized our transactional exposure. Hedge Accounting has been used since fiscal 2019 to record the hedging of fluctuating cash flows that result from exchange rate movements and are associated with transactions that are highly likely to occur.

HEDGING OF INTEREST RATE RISKS

We pursue a conservative interest rate and financing strategy with three core elements: long-term interest rate and financing security, matching maturities, and a ban on speculation.

Our financial liabilities are primarily the bonds issued in 2018, 2022, and 2024 and borrowings from bilateral credit facilities. Our corporate financing is exposed to limited interest rate risks. The risk of interest rate fluctuation arising from operational activities is also of no great significance to the Knorr-Bremse Group at present, as the Group's geographical diversification in recent years has established a high level of local manufacturing and local supply within the respective regions. Our interest rate risk management covers all interest-bearing and interest-sensitive balance sheet items. Regular interest rate analyses allow us to identify risks at an early stage. Corporate Treasury is responsible for debt financing, financial investment and interest rate hedging; exceptions above a certain size must be approved by the Chief Financial Officer.

Our pension risks are manageable. At € 239 million, pension provisions at the end of the year were slightly below the previous year's level (previous year: € 243 million), and thus 2.5% (previous year: 2.9%) of total assets.

HEDGING OF LIQUIDITY RISKS

Our liquidity requirements are largely covered by our operating cash flow. Cash and cash equivalents together with existing credit facilities allow us to meet our payment obligations at all times. By virtue of cash pooling in each of our respective currency zones, we can utilize individual companies' liquidity surpluses for other Group subsidiaries, to the extent permitted by national capital transfer regulations. This avoids recourse to external loans and interest expenses.

CREDIT RISKS

Credit risks arise from investments with banks, operating trade accounts receivable from customers, and contract assets. On the credit institution's side, the risk relates to counterparty default, while on the customer's side the risk relates to late, partial, or no settlement of receivables without compensation and to default. The carrying amount of the financial assets reported in the consolidated financial statements represents the maximum default risk. Regular monitoring is carried out both on the bank side and on the customer side. Decisions on financial transactions are made on the basis of this monitoring. Contracts on financial derivatives and financial transactions are only concluded with financial institutions with high credit ratings in order to keep the counterparty default risk as low as possible. In principle, commercial transactions are exposed to the risk of a possible loss of value due to the defaulting of business partners, such as banks, suppliers, and customers.

There was no material concentration of a default risk with regard to a business partner or a clearly distinguishable group of business partners. As of the reporting date, there were no material agreements that limit the maximum default risk.

HEDGING OF COMMODITY PRICE RISKS

Commodity price risks exist whenever raw materials required in the production process (especially metals) can only be purchased at higher costs due to fluctuating market prices and it is not possible to offset these higher costs by adjusting the selling price to customers. The planned purchases of raw materials or components with raw material contents as well as the corresponding sales contracts are taken into account for the analysis of the commodity price risk. The resulting risk position, representing our exposure, is continuously monitored and hedged on a case-by-case basis using commodity swaps. Hedge accounting is not applied here.

FINANCING RISKS

Knorr-Bremse's financing situation is comfortable and reflects the company's excellent credit standing and solid balance sheet structure. As at December 31, 2024, Knorr-Bremse had access to approved credit facilities totaling € 2,633 million (including a syndicated and ESG-linked credit facility of € 750 million), of which approximately 74.7% remained undrawn. Furthermore, Knorr-Bremse has two bonds for € 750 million maturing in 2025 and € 700 million maturing in 2027 as well as a two-tranche bond with € 600 million and € 500 million tranches maturing in September 2029 and September 2032 respectively. Neither our credit facilities with banks nor the bonds we have issued include any financial covenants.

HEDGING OF INVESTMENT RISKS

Our investment guideline governs the handling of investment risks. Among other things, it defines approved asset classes and creditworthiness requirements. The special fund that was launched in November 2020 was dissolved in 2024.

RATING

See Financial Position (Financial Development) in the Liquidity section.

More information on the management of financial risks can be found in chapter H.1. of the Notes to the Consolidated Financial Statements.

Opportunity management system

Knorr-Bremse's opportunity management system follows the processes of the risk management system. Alongside regular management reviews, opportunities are also reported in the quarterly report on risks and opportunities. It should always be borne in mind, however, that even opportunities may be associated with risks that must be carefully weighed up in all circumstances.

As part of the rigorous implementation of Knorr-Bremse's growth strategy, we continuously monitor current and future markets in order to pinpoint and evaluate potential global opportunities at an early stage. To do this, we stay in close contact with our customers and suppliers so we can identify future trends and any resulting market demand. Furthermore, we conduct regular benchmark analyses both against our direct competitors and against peer groups of subcontractors in the rail and commercial vehicle sectors. Besides the Executive Board and Corporate Development, the divisions' central departments are also responsible for identifying potential opportunities to adapt existing products to meet future customer needs or add new product areas. In the opinion of management, Knorr-Bremse makes above-average investments in new technologies in order to further extend the company's innovation and market leadership, safeguard our existing sales markets, and open up new markets. In addition to internal growth opportunities, we also exploit external opportunities by undertaking targeted acquisitions and setting up joint-venture companies.

Operational opportunities are discussed in regular reviews at divisional level, taking account of specific regional circumstances. Knorr-Bremse is constantly working to optimize cost management and streamline process efficiency to further enhance the competitiveness of the company's products and services.

Synergies between divisions

Knorr-Bremse pursues a strategy of generating opportunities and options for synergies between its Rail Vehicle Systems and Commercial Vehicle Systems divisions. The Executive Board and Management Boards continually monitor important, long-term trends in both industries in order to identify potential.

Appealing synergies arise from our presence in both market segments. As the product offerings across the two divisions are based on similar core technologies, joint development projects enable the transfer of know-how and experience. Moreover, some systems for rail vehicles and systems for commercial vehicles use similar components and materials. Such synergistic areas include materials science for friction materials, and disk brake technology. Future development work in both product areas will benefit from shared experience in, for example, the use of sensors in environment detection systems. Both divisions use research institutions jointly across the world.

Megatrends

The following megatrends represent important strategic opportunities for Knorr-Bremse:

URBANIZATION

Growing population sizes and increasing urbanization are creating opportunities, especially for our rail vehicle systems business, as the demand for faster, safer, and more reliable modes of transportation continues to grow. Another contributing factor to this trend is that people commute between their home and place of work and want to avoid very high levels of road traffic simultaneously.

SUSTAINABILITY

Knorr-Bremse is benefiting from opportunities to expand rail transportation as cities, states and countries make growing efforts to combat climate change. Electrification and other energy-efficient and eco-friendly solutions are the result of a growing public awareness of the importance of energy efficiency, combined with intensified government energy initiatives such as stricter emission regulations. End-to-end eco-design is helping to reduce the carbon footprint of our products and make transportation more energy-efficient.

DIGITALIZATION

Digitalization is advancing system and subsystem connectivity for rail and commercial vehicles. This in turn enables real-time data analysis and predictive maintenance for an improvement of life cycle costs. The aim is also to increase the availability of the transportation forms made possible by new product generations and customer solutions in the future. For example, digitalization creates a basis for automated train operation (ATO), condition-based maintenance of rail vehicles, and monitoring tools and telematics solutions for commercial vehicles.

MOBILITY

An increasingly mobile and interconnected global population is continuing to drive up the demand for safer and more efficient mobility and logistics solutions. The Covid-19 pandemic has not led to a lasting negative influence on people's general need for mobility either. Our product range across both divisions is making a decisive contribution to meeting this demand. New solutions are being developed in response to this growing trend, primarily in the form of automated driving features and driver assistance functions that aim to increase safety and reduce transportation costs and emission levels.

The above megatrends generate growth opportunities in both divisions.

General statement on the risks and opportunities situation

Analysis of the Group-wide risk profile has revealed no identifiable risks that could threaten the survival of the Group of companies. The opportunities presented above are intended to contribute to the achievement of our long-term growth targets. The analysis of the opportunities situation did not give rise to any material changes compared with the previous year.

No ESG-related risks, which very likely could have severe negative impacts on the non-financial aspects of the Knorr-Bremse Group, had been identified as of the reporting date or at the time the annual and consolidated financial statements were prepared.

The Group-wide risk and opportunities situation is evaluated each quarter at the monthly Executive Board meetings and a general statement on the adequacy and effectiveness of our internal control system is made once per year. Based on this, the Executive Board does not see any indications that our risk management or internal control systems are inadequate or ineffective as a whole.[20]

There is continuous monitoring of processes and systems for the risk management system as well as the internal control system in order to rectify the vulnerabilities identified and ensure continuous improvement of processes and systems. We continuously make improvements to our risk management and internal control systems based on internal and external audit findings.

Report on expected developments

Decrease in inflation and low growth[21]

The global fight against corruption has largely been won, even with pressure remaining on prices in a few countries. After the overall inflation rate reached its peak of 9.4% in the third quarter of 2022, it is now expected that it will fall to 4.2% by the end of 2025 and 3.5% by 2026.

Forecasts suggest that there is a steady fall in inflation globally, with higher-developed, advanced economies meeting their inflation targets faster than emerging economies and developing countries. Be that as it may, the central banks need to balance the risk of premature

[20] The statement regarding adequacy and effectiveness did not form part of the audit of the consolidated financial statements.

[21] The information presented in this chapter is based on analyses and findings of the International Monetary Fund (IMF) as outlined in its latest report.

loosening proportionally to an excessive delay in order to achieve a restoration of stable prices.

Due to the synchronized tightening of monetary policy during the entire disinflation process, the global economy proved to be highly resilient, with a global recession able to be avoided. The global growth forecast for 2025 and 2026 is 3.3%. However, the forecast for 2025–2026 is below the historical average of 3.7% (2000–2019).

Despite the robustness of the global economy following the pandemic, there are a number of uncertainties in the immediate future, such as the weakest medium-term global growth forecast in three decades. This economic downturn affects things such as private wealth formation and slows down the growth of the working-age population in major economies.

Four years on from the outbreak of the Covid-19 pandemic, budget deficits and debt levels are exceeding pre-pandemic levels and will probably remain high in the medium term. It must be assumed that the world's national debt will likely rise to more than 100% of GDP by 2029 if committed action is not taken.

A high priority must therefore be assigned to restoring fiscal flexibility so that economies are made more resilient to future shocks and key public investment is made to manage climate change and the technological transition.

Global growth is estimated to remain low in the medium term at 3.1% in the period up to 2029. This is one of the lowest five-year forecasts in decades.

Despite the significant milestone in the global decline of inflation, downside risks are increasing further and now influencing the future prospects: an escalation of regional conflicts, an overly protracted tightening of monetary policy, possible renewed volatility in financial markets with negative outcomes for government bond markets, a greater slowdown of growth in China, and increasing intensification of protectionist measures.

In the United States, robust growth of 2.7% is expected for 2025. This is a reflection of persistently strong demand, stable labor markets, rising investment, and less restrictive monetary policy. A return to long-term growth potential is expected for 2026.

In the eurozone, growth appears to have reached its low point in 2023. GDP growth of 0.8% is expected for 2024 and this is due to better exports, particularly of goods. An increase to 1.0% is forecast for 2025 and 1.4% for 2026, propped up by stronger domestic demand.

There are dynamics leading to balancing effects among other advanced economies, too. In Japan, economic growth is forecast to accelerate to 1.1%, driven by private consumption since real wage growth is picking up.

By contrast, the United Kingdom is expected to have accelerated GDP growth of 1.6% for 2025 as falling inflation and lower interest rates will strengthen domestic demand.

Similarly to the advanced economies, the growth forecast for emerging and developing countries remains stable at approximately 4.2% for 2025 and will reach a level of 4.3% in 2026. Here, too, the growth dynamics between the groups of countries have a balancing effect.

The strong growth in the emerging Asia region will likely go down from 5.2% in 2024 to 5.1% in 2025, reflecting the prolonged slowdown in the region's two largest countries. In India, moderate GDP growth of 6.5% is expected for 2025 and 2026. In China, the deceleration of growth will likely proceed gradually. Economic growth of 4.6% is expected for 2025 and 4.5% for 2026. Political action taken just recently might prop up growth in the short term.

In the Middle East and central Asia, on the other hand, growth will likely recover – though less than expected – for reasons including in particular a downward revision of 1.3 percentage points for Saudi Arabia as a result of the OPEC+ production cuts being extended.

Slower growth is expected for emerging countries and developing European countries in 2025

2.68 FULL-YEAR GUIDANCE FOR THE GROUP

Most significant performance indicators		2025 target	2024 actual
Revenues	€ million	8,100–8,400	7,883
Operating EBIT margin (as % of revenues)	%	12.5–13.5	12.3
Free cash flow	€ million	700–800	730

Global rail and commercial vehicle markets

GLOBAL RAIL VEHICLE PRODUCTION

Despite the uncertainty resulting from the geopolitical situation, and in particular the growing protectionist efforts of certain countries, Russia's invasion of Ukraine, conflicts in the Middle East, and supply chain instability, the rail vehicle market remains a high-growth market which additionally receives support from various government investment programs. Both in the passenger business and in the freight market, sustainable growth is expected, particularly as a result of climate protection measures and the change in mobility within cities. Alongside the aftermarket as the continuous driver of growth, the OE market especially will be a driving force in the future.

In Europe, several measures are aimed at promoting the Clean Industrial Deal and shifting traffic from the road and air to rail. Increasing investments in vehicles and infrastructure are supporting market growth. The biggest growth markets include, in particular, Germany, France, Scandinavia, Poland, Austria, and the Iberian Peninsula. Moreover, alternative drive systems, which are intended to replace diesel multiple units and diesel locomotives, are playing an increasing role. The sanctions imposed by governments on the supply of goods to Russia as a consequence of Russia's war in Ukraine have made the Russian market inaccessible for the indefinite future.

The long-term development of the North American market is shaped by political and economic trends. In the short term, the market remains protected by the infrastructure package passed in 2021. In the medium to long term, though, a reduction of federal support cannot be ruled out. For the years ahead, the freight market is expected to remain at a consistently lower level while passenger transportation is expected to grow.

Increasing growth is expected in Southeast Asia and the Pacific region. Higher infrastructure investment in India is resulting in strong growth of the OE market especially due to major projects with international participation.

In China, steady development is expected for the coming years and will be driven by positive aftermarket and OE business growth.

These market assessments are based on leading industry studies and internal market research.

GLOBAL COMMERCIAL VEHICLE PRODUCTION

For 2025, Knorr-Bremse is expecting an overall stable market influenced by economic trends, with truck production reaching 2.5 million units and going down a slight 1% from 2024 levels. A projected 7% decline in truck production in western Europe will be offset by expected growth in APAC countries such as Japan (10%) and India (6%).

In western Europe, Knorr-Bremse is expecting a moderate 7% decline in commercial vehicle production to approximately 380 thousand units due to movements toward recession in western European economies. Commercial vehicle production in eastern Europe is expected to increase by 16% to roughly 66 thousand units.

North America is expected to see lower commercial vehicle production of 390 thousand units. In South America, after a year of strong growth in 2024, we expect production to decline in 2025 with a moderate 8% reduction to roughly 129 thousand vehicles.

In the Asia region, we are expecting 2025 to be a stronger year than 2024 with growth of 10% in Japan and 6% in India as well as stable production of 975 thousand units in China.

The market data relates to the truck production rate in each region as published by various organizations, such as LMC.

Revenue, profitability, and free cash flow

The outlook for 2025 is subject to an assumption that exchange rates will remain largely stable year over year, there will be no significant setbacks from Russia's war in Ukraine, and there will be generally stable geopolitical and economic environments. Possible effects from business acquisitions or divestments are not taken into account.

From today's perspective, we anticipate revenues of between € 8,100 million and € 8,400 million for the 2025 fiscal year. Based on this revenue forecast, we expect an operating EBIT margin of between 12.5% and 13.5% and free cash flow in a corridor between € 700 million and € 800 million.

As part of this forecast, we are projecting a significant increase in revenues and a robust increase in the operating EBIT margin for the Rail Vehicle Systems division when compared with the previous year. For the Commercial Vehicle Systems division, we are expecting a near-unchanged level with a slightly to robustly rising development in the operating EBIT margin despite the disposals of both R.H. Sheppard and GT Emission Systems.

Proposed dividend

The dividend proposal for 2024 (€ 1.75 per share) means a payout ratio of approximately 60%. For this reason, we are aiming for a dividend payout ratio above the long-term range of 40% to 50% of the Group's post-tax earnings for the current fiscal year so that our shareholders are included in Knorr-Bremse's pleasing operational developments which have been diluted by the non-recurring, negative effects of M&A activities.

Executive Board's statement summarizing expected developments

In addition to continuing to deal with the effects of supply chain bottlenecks, the continuing Russia–Ukraine war, and geopolitical developments, the most significant challenges ahead include maintaining our innovation leadership, rapidly responding to changing market circumstances, and continually improving our cost position. With this in mind, we are continuing to develop our competencies further, investing in the future, and adapting our organization to enhance our efficiency and satisfy market demands. This will safeguard Knorr-Bremse's market leadership in both rail and commercial vehicle markets going forward. Our robust business model enables us to generate sufficient financial resources to continue to pursue a sustainable dividend policy and further develop the Group organically through acquisitions. Based on our product portfolio and brand strength, Knorr-Bremse is taking an overall confident view toward 2025.

Knorr-Bremse AG (HGB)

The annual financial statements of Knorr-Bremse AG comply with the provisions of German GAAP (according to the German Commercial Code – HGB), whereas the consolidated financial statements have been prepared in compliance with IFRS. As the parent company of the Group, Knorr-Bremse AG performs the role of service provider and holding company, as well as operational management functions. The company's commercial development depends primarily on the business performance of the operating Group companies. The economic environment in which Knorr-Bremse AG operates essentially corresponds to that of the Group as described in the Business Report in the General Economic and Industry-Related Conditions section.

Income (loss) from investments in affiliated companies is regarded as the most significant performance indicator. This includes income from participations, income from profit transfer agreements and expenses from loss transfers.

As of year-end 2024, Knorr-Bremse AG had 212 employees (previous year: 179).

Net assets, financial position, and results of operations

Along with interests in affiliated companies, Knorr-Bremse AG's balance sheet largely reflects receivables from and payables to Group companies. These are centrally administered, partly within the framework of the cash-pooling process managed by Knorr-Bremse AG.

The net assets and financial position of Knorr-Bremse AG are influenced by the issue of a two-tranche bond of a total amount of € 1,100 million. A € 292 million capital increase in Knorr Brake Holding Corporation, Avon, Ohio, US is the main reason for the increase in investments from € 1,138 million to € 1,497 million. Furthermore, liabilities to affiliated companies rose by € 139 million to € 540 million (previous year: € 401 million) due to increased cash pooling liabilities. Equity increased from € 995 million in 2023 to € 1,072 million in 2024 due to a € 78 million increase in the net retained profit, which resulted from an increase in the net income after the allocation of € 300 million to retained earnings. The total assets of Knorr-Bremse AG increased mainly because of the issue of a two-tranche bond of a total amount of € 1,100 million and amounted to € 4,384 million as at December 31, 2024 (previous year: € 3,042 million).

In 2024, a very significantly lower investment result resulted in a decrease in earnings before taxes to € 362 million (previous year: € 579 million). The investment result has decreased mainly due to a € 111 million year-over-year fall in the profit transfer from Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Munich, Germany, although this was partially compensated for with a € 38 million increase in the profit transfer of € 96 million from Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Munich, Germany. Furthermore, Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Munich, Germany made a € 175 million pre-consolidation profit distribution in the previous year which did not stand against any distribution in 2024. The investment result for the 2024 fiscal year is € 403 million, which is very significantly below the previous year's € 619 million and therefore below the "slight decrease" that was forecast. The taxes on income, at € 20 million, remained near the previous year's level of € 18 million. Altogether, Knorr-Bremse AG is therefore posting significantly lower earnings after taxes of € 342 million when compared with the previous year (€ 561 million).

Knorr-Bremse AG acts as an in-house bank for its subsidiaries around the world. This includes handling the central hedging of market price risks. The subsidiaries contract their hedging transactions with Knorr-Bremse AG, which in turn hedges part or all of the residual net risk for the Group with external banks. With the aid of the global process standardization and process transparency achieved through Knorr Excellence, Knorr-Bremse AG is able to efficiently manage its own business and that of its affiliated and related companies.

Appropriation of retained net earnings

Knorr-Bremse AG posted retained net profit of € 594 million in fiscal 2024 (previous year: € 817 million). The Executive Board of Knorr-Bremse AG will suggest that the Annual General Meeting distribute a total dividend of € 282 million for the past fiscal year. This corresponds to a dividend per share with dividend rights of € 1.75 (161,200,000 shares), Knorr-Bremse AG's remaining unappropriated retained earnings of € 312 million (previous year: € 252 million) will be carried forward.

Relationship with affiliated companies

In the view of the Executive Board, under section 312 of the German Stock Corporation Act (AktG), Knorr-Bremse AG constitutes a company directly dependent on KB Holding GmbH, Oberhaching, Germany (hereinafter "KB Holding"), which directly holds more than half of the share capital of Knorr-Bremse AG. The Executive Board understands that the shares in KB Holding are held by TIB

Vermögens- und Beteiligungsholding GmbH, Oberhaching, Germany (hereinafter "TIB"), the majority of whose shares are in turn held by Stella Vermögensverwaltungs GmbH, Oberhaching, Germany (hereinafter "Stella"). The company is therefore indirectly dependent on TIB and Stella pursuant to Section 17 in conjunction with Section 16 (4) AktG. Stella, TIB, and KB Holding have notified the company that they have an indirect or direct majority interest in the company. Following the passing of Heinz Hermann Thiele on February 23, 2021, and until the transfer into the Heinz Hermann Thiele Family Trust, Oberhaching, Germany, which was established in early April 2023 (hereinafter "family trust"), the majority of shares in Stella were held by Mr. Thiele's widow, Nadia Thiele, his heir (according to the March 25, 2021, voting rights notification pursuant to sections 33, 34 (1) WpHG). The voting rights under these shares were controlled by Mr. Robin Brühmüller, the executor of the deceased's estate, as of this time. On December 6, 2024, Nadia Thiele transferred the shares in Stella that she held to the family trust. Since that time, the indirect equity interest of 58.99% held by KB Holding in Knorr-Bremse AG has also been attributed to the family trust in view of its control over the voting rights in Stella (in accordance with the December 9, 2024, voting rights notification pursuant to sections 33, 34 (1) WpHG).

Pursuant to Section 312 AktG, the Executive Board has drawn up a Report on Relations with Affiliated Companies that includes the following statement by the Executive Board:

"We declare that in the legal transactions and measures shown in the Report on Relations with Affiliated Companies, according to the circumstances known to us at the time at which the said legal transactions took place or measures were taken or refrained from, in each case Knorr-Bremse AG received appropriate consideration for the legal transactions and was not placed at a disadvantage as a result of measures taken or refrained from."

Risks and opportunities

Knorr-Bremse AG participates in the risks and opportunities of its subsidiaries; the degree of participation depends on the respective shareholding. For more details, please refer to the Report on Risks, Opportunities, and Expected Developments chapter. Furthermore, the liability relationships existing between Knorr-Bremse AG and its subsidiaries may result in exposure to risks.

Expected developments

Knorr-Bremse AG's future business growth is closely linked to the Group's ongoing operating performance. The Report on Risks, Opportunities and Expected Developments provides more details of our prospects and plans for our operating activities.

Knorr-Bremse AG anticipates stable investment results in 2025. Our future ability to pay dividends thus remains assured.

Munich, March 20, 2025

Knorr-Bremse AG

Executive Board

MARC LLISTOSELLA   DR. NICOLAS LANGEDR.   CLAUDIA MAYFELD   BERND SPIES   FRANK MARKUS WEBER

Assurance report of the independent German Public Auditor on a limited assurance engagement in relation to the Consolidated Sustainability Statement[22]

To the Knorr-Bremse AG, Munich

Assurance Conclusion

We have conducted a limited assurance engagement on the Consolidated Sustainability Statement, included in section "Group Sustainability Statement" of the combined management report, of Knorr-Bremse AG, Munich, (hereinafter „Company" or „Knorr-Bremse AG") for the financial year from January 1 to 31 December 2024. The Consolidated Sustainability Statement was prepared to fulfil the requirements of Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 (Corporate Sustainability Reporting Directive, CSRD) and Article 8 of Regulation (EU) 2020/852 as well as Sections 315b and 315c of the HGB [Handelsgesetzbuch: German Commercial Code] for a consolidated non-financial statement.

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the accompanying Consolidated Sustainability Statement is not prepared, in all material respects, in accordance with the requirements of the CSRD and Article 8 of Regulation (EU) 2020/852, Sections 315b and 315c HGB for a consolidated non-financial statement, and the supplementary criteria presented by the executive directors of the Company. This assurance conclusion includes that nothing has come to our attention that causes us to believe that:

- the accompanying Consolidated Sustainability Statement does not comply, in all material respects, with the European Sustainability Reporting Standards (ESRS), including that the process carried out by the entity to identify information to be included in the Consolidated Sustainability Statement (the materiality assessment) is not, in all material respects, in accordance with the description set out in section "Processes to identify and assess material impacts, risks, and opportunities" of the Consolidated Sustainability Statement, or

- the disclosures in "EU Taxonomy" of the Consolidated Sustainability Statement do not comply, in all material respects, with Article 8 of Regulation (EU) 2020/852.

Basis for the Assurance Conclusion

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board (IAASB).

The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our responsibilities under ISAE 3000 (Revised) are further described in the section "German Public Auditor's Responsibilities for the Assurance Engagement on the Consolidated Sustainability Statement".

We are independent of the entity 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. Our audit firm has applied the requirements for a system of quality control as set forth in the IDW Quality Management Standard issued by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW): Requirements for Quality Management in the Audit Firm (IDW QMS 1 (09.2022)) and International Standard on Quality

22 Our engagement applied to the German version of the Consolidated Sustainability Statement. This text is a translation of the Assurance report of the independent German Public Auditor issued in the German language, whereas the German text is authoritative.

Management (ISQM) 1 issued by the IAASB. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusion.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Sustainability Statement

The executive directors are responsible for the preparation of the Consolidated Sustainability Statement in accordance with the requirements of the CSRD and the applicable German legal and other European requirements as well as with the supplementary criteria presented by the executive directors of the Company and for designing, implementing and maintaining such internal control that they have considered necessary to enable the preparation of a Consolidated Sustainability Statement in accordance with these requirements that is free from material misstatement, whether due to fraud (i.e., fraudulent sustainability reporting in the Consolidated Sustainability Statement) or error.

This responsibility of the executive directors includes establishing and maintaining the materiality assessment process, selecting and applying appropriate reporting policies for preparing the Consolidated Sustainability Statement, as well as making assumptions and estimates and ascertaining forward-looking information for individual sustainability-related disclosures.

The Supervisory Board is responsible for overseeing the process for the preparation of the Consolidated Sustainability Statement.

Inherent Limitations in Preparing the Consolidated Sustainability Statement

The CSRD and the applicable German legal and other European requirements contain wording and terms that are subject to considerable interpretation uncertainties and for which no authoritative, comprehensive interpretations have yet been published. As such wording and terms may be interpreted differently by regulators or courts, the legality of measurements or evaluations of sustainability matters based on these interpretations is uncertain. As further set forth in section "GHG emissions [E1-6] - Scope-3.1, Scope-3.4 und Scope-3.11", "Resource inflows [E5-4]" and "Payment practices [G1-6]" of the Consolidated Sustainability Statement, the quantification of the non-financial performance indicators is also subject to inherent uncertainties due to estimations and measurement inaccuracies.

These inherent limitations also affect the assurance engagement on the Consolidated Sustainability Statement.

German Public Auditor's Responsibilities for the Assurance Engagement on the Consolidated Sustainability Statement

Our objective is to express a limited assurance conclusion, based on the assurance engagement we have conducted, on whether any matters have come to our attention that cause us to believe that the Consolidated Sustainability Statement has not been prepared, in all material respects, in accordance with the CSRD, the applicable German legal and other European requirements and the supplementary criteria presented by the company's executive directors, and to issue an assurance report that includes our assurance conclusion on the Consolidated Sustainability Statement.

As part of a limited assurance engagement in accordance with ISAE 3000 (Revised), we exercise professional judgment and maintain professional skepticism. We also:

- obtain an understanding of the process used to prepare the Consolidated Sustainability Statement, including the materiality assessment process carried out by the entity to identify the disclosures to be reported in the Consolidated Sustainability Statement.
- identify disclosures where a material misstatement due to fraud or error is likely to arise, design and perform procedures to address these disclosures and obtain limited assurance to support the assurance conclusion. 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 control. In addition, the risk of not detecting a material misstatement in information obtained from sources not within the entity's control (value chain information) is ordinarily

higher than the risk of not detecting a material misstatement in information obtained from sources within the entity's control, as both the entity's executive directors t and we as practitioners are ordinarily subject to restrictions on direct access to the sources of the value chain information.

- consider the forward-looking information, including the appropriateness of the underlying assumptions. There is a substantial unavoidable risk that future events will differ materially from the forward-looking information.

Summary of the Procedures Performed by the German Public Auditor

A limited assurance engagement involves the performance of procedures to obtain evidence about the sustainability information. The nature, timing and extent of the selected procedures are subject to our professional judgment.

In performing our limited assurance engagement, we among other things:

- evaluated the suitability of the criteria as a whole presented by the executive directors in the Consolidated Sustainability Statement.
- inquired of the executive directors and relevant employees involved in the preparation of the Consolidated Sustainability Statement about the preparation process, including the materiality assessment process carried out by the entity to identify the disclosures to be reported in the Consolidated Sustainability Statement, and about the internal controls relating to this process.
- evaluated the reporting policies used by the executive directors to prepare the Consolidated Sustainability Statement.
- evaluated the reasonableness of the estimates and related information provided by the executive directors. If, in accordance with the ESRS, the executive directors estimate the value chain information to be reported for a case in which the executive directors are unable to obtain the information from the value chain despite making reasonable efforts, our assurance engagement is limited to evaluating whether the executive directors have undertaken these estimates in accordance with the ESRS and assessing the reasonableness of these estimates, but does not include identifying information in the value chain that the executive directors were unable to obtain.
- performed analytical procedures and made inquiries in relation to selected information in the Consolidated Sustainability Statement.
- conducted site visits.
- considered the presentation of the information in the Consolidated Sustainability Statement.
- considered the process for identifying taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the Consolidated Sustainability Statement.

Restriction of Use/Clause on General Engagement Term

This assurance report is solely addressed to Knorr-Bremse AG, Munich.

The engagement, in the performance of which we have provided the services described above on behalf of Knorr-Bremse AG, Munich, was carried out on the basis of the General Engagement Terms for Wirtschaftsprüferinnen, Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüferinnen, Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) dated as of January 1, 2024 (www.kpmg.de/AAB_2024). By taking note of and using the information as contained in our report each recipient confirms to have taken note of the terms and conditions stipulated in the aforementioned General Engagement Terms (including the liability limitations specified in item No. 9 included therein) and acknowledges their validity in relation to us.

Munich, 20. March 2025

KPMG AG
Wirtschaftsprüfungsgesellschaft

Mokler Wirtschaftsprüfer	Vogl Wirtschaftsprüferin

03

Consolidated Financial Statements

Consolidated Statement of Income

of Knorr-Bremse AG, for the Fiscal Year from January 1 to December 31, 2024

3.01 CONSOLIDATED STATEMENT OF INCOME

in € million	Notes	2024	2023
Revenues	E.1.	7,883	7,926
Change in inventory of unfinished/finished products	E.2.	44	(10)
Own work capitalized	E.2.	113	113
Total operating performance		**8,040**	**8,029**
Other operating income	E.3.	118	105
Cost of materials	E.4.	(3,803)	(4,013)
Personnel expenses	E.5.	(2,055)	(1,970)
Other operating expenses	E.6.	(997)	(930)
Earnings before interest, tax, depreciation, and amortization (EBITDA)		**1,303**	**1,221**
Depreciation, Amortization, and Impairment	E.7.	(392)	(351)
Earnings before interest and taxes (EBIT)		**911**	**870**
Interest income	E.8.	60	32
Interest expenses	E.8.	(107)	(101)
Result from financial investments using the equity method	E.8.	(16)	(20)
Impairment of other financial assets	E.8.	(65)	(0)
Other financial result	E.8.	(138)	(8)
Income before taxes		**645**	**773**
Taxes on income	E.9.	(168)	(197)
Net income		**477**	**576**
of which attributable to:			
Profit (loss) attributable to non-controlling interests		32	23
Profit (loss) attributable to the shareholders of Knorr-Bremse AG		445	553
Earnings per share in €	**E.10.**		
Undiluted		2.76	3.43
Diluted		2.76	3.43

Consolidated Statement of Comprehensive Income

of Knorr-Bremse AG, for the Fiscal Year from January 1 to December 31, 2024

3.02 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

in € million	Notes	2024	2023
Consolidated net income		**477**	**576**
Actuarial gains and losses	F.11.	(4)	(22)
Deferred taxes	E.9.2.	0	6
Items that will not be reclassified to profit or loss		**(4)**	**(16)**
Currency translation		54	(65)
Hedging transactions reserve	F.15.4.	(33)	28
Reserve for costs of hedging	F.15.4.	1	14
Deferred taxes	E.9.2.	10	(13)
Items that may be reclassified to profit or loss		**32**	**(36)**
Other comprehensive income after taxes		**28**	**(52)**
Comprehensive income		**505**	**524**
Total comprehensive income attributable to non-controlling interests		34	19
Total comprehensive income attributable to the shareholders of Knorr-Bremse AG		471	505

Consolidated Balance Sheet

of Knorr-Bremse AG, as of December 31, 2024

3.03 ASSETS

in € million	Notes	2024	2023
Assets			
Intangible assets	F.1.	933	771
Goodwill	F.1./F.2.	883	696
Property, plant, and equipment	F.3.	1,899	1,864
Investments accounted for using the equity method	C.6.	36	61
Other financial assets	F.4.	83	141
Other assets	F.5.	102	96
Income tax receivables	F.16.	1	2
Assets from employee benefits	F.11.	24	26
Deferred tax assets	E.9.	237	73
Non-current assets		**4,198**	**3,730**
Inventories	F.6.	1,216	1,142
Trade accounts receivable	F.5.	1,385	1,359
Other financial assets	F.4.	89	161
Other assets	F.5.	206	185
Contract assets	E.1.	160	77
Income tax receivables	F.16.	81	83
Cash and cash equivalents	F.7.	2,263	1,291
Assets held for sale and disposal groups	F.8.	16	221
Current assets		**5,416**	**4,519**
Total assets		**9,614**	**8,249**

3.04 EQUITY AND LIABILITIES

in € million	Notes	2024	2023
Equity			
Subscribed capital	F.9.1.	161	161
Capital reserves	F.9.2.	14	14
Retained earnings	F.9.3.	309	9
Other components of equity	F.9.4.	(144)	(169)
Group earnings		2,705	2,821
Equity attributable to the shareholders of Knorr-Bremse AG		**3,045**	**2,836**
Equity attributable to non-controlling interests		82	68
Equity		**3,127**	**2,904**
Liabilities			
Provisions for pensions	F.11.	239	243
Provisions for other employee benefits	F.11.	32	18
Other provisions*	F.12.	228	225
Trade accounts payable	F.13.	11	–
Financial liabilities	F.14.	2,555	2,173
Other liabilities	F.13.	13	7
Income tax liabilities	F.16.	6	4
Deferred tax liabilities	E.9.	90	133
Non-current liabilities		**3,174**	**2,803**
Provisions for other employee benefits	F.11.	19	16
Other provisions*	F.12.	170	133
Trade accounts payable	F.13.	1,128	1,202
Financial liabilities	F.14.	1,391	587
Other liabilities	F.13.	139	121
Contract liabilities	E.1.	343	233
Income tax liabilities	F.16.	113	97
Liabilities directly associated with assets held for sale	F.8.	10	153
Current liabilities		**3,313**	**2,542**
Liabilities		**6,487**	**5,345**
Total equity and liabilities		**9,614**	**8,249**

* The prior-year figure was adjusted by reclassifying current provisions of € 38 million as non-current provisions.

Consolidated Statement of Cash Flows

of Knorr-Bremse AG, for the Fiscal Year from January 1 to December 31, 2024

3.05 CONSOLIDATED STATEMENT OF CASH FLOWS

in € million	Notes	2024	2023
Net income (including minority interests)		477	576
Adjustments for			
Depreciation, amortization, and impairment losses on intangible assets and property, plant, and equipment		392	351
(Gain)/loss on the sale of consolidated companies and other business units		65	19
(Gain)/loss on the disposal of fixed assets		1	3
Non-cash changes in the measurement of derivatives		48	(37)
Other non-cash expenses and income		68	(24)
Interest result		47	69
Investment result		18	20
Income tax expense		168	197
Income tax payments		(204)	(259)
Changes of			
Inventories, trade accounts receivable, and other assets that cannot be allocated to investing or financing activities, including write-downs on these assets		(56)	(120)
Trade accounts payable, provisions as well as other liabilities that cannot be allocated to investing or financing activities		18	120
Cash flow from operating activities	**G.1.**	**1,042**	**915**
Proceeds from the sale of intangible assets		5	–
Disbursements for investments in intangible assets		(118)	(121)
Proceeds from the sale of property, plant, and equipment		29	12
Disbursements for investments in property, plant, and equipment		(228)	(254)
Proceeds from financial investments and from the sale of investments		193	45
Disbursements for investments in financial assets		(44)	(84)
Proceeds from the sale of consolidated companies and other business units less cash and cash equivalents disposed of		6	(7)
Disbursements for the acquisition of consolidated companies and other business units less cash and cash equivalents acquired		(636)	(20)
Interest received		47	22
Other disbursements		(4)	(4)
Cash flow from investing activities	**G.2.**	**(750)**	**(411)**

in € million	Notes	2024	2023
Proceeds from borrowings		1,099	16
Disbursements from the repayment of borrowings		(31)	(56)
Disbursements for lease liabilities		(69)	(67)
Interest paid		(59)	(59)
Dividends paid to parent company shareholders		(264)	(234)
Dividends paid to non-controlling interests		(18)	(16)
Payments for acquisition of non-controlling interests		–	(1)
Proceeds from grants and subsidies		6	9
Payments from settlement of derivatives		(34)	10
Cash flow from financing activities	**G.3.**	**630**	**(398)**
Cash flow changes		**922**	**106**
Change in cash funds resulting from exchange rate and valuation-related movements		25	(35)
Change in cash funds resulting from changes to the group structure		–	1
Change in cash funds		**947**	**72**
Cash funds at the beginning of the period		1,283	1,211
Cash funds at the end of the period	**G.4.**	**2,230**	**1,283**
Cash and cash equivalents		2,263	1,291
Reclassification as assets held for sale and disposal groups		0	30
Short-term bank debt (less than 3 months)		(33)	(38)

Consolidated Statement of Changes in Equity

of Knorr-Bremse AG, as of December 31, 2024

3.06 GROUP STATEMENT OF CHANGES IN EQUITY

in € million	Notes	Subscribed capital	Capital reserve	Retained earnings	Group earnings	
As of Jan. 1, 2024		**161**	**14**	**9**	**2,821**	
Dividends		–	–	–	(264)	
Net income		**–**	**–**	**–**	**445**	
Other comprehensive income after taxes		–	–	–	–	
Comprehensive income		**–**	**–**	**–**	**445**	
Allocation to retained earnings		–	–	300	(300)	
Reclassification of components of OCI to Group earnings		–	–	–	3	
Gains and losses on hedging transactions and costs of hedging reclassified to inventories		–	–	–	–	
Other		–	–	–	–	
As of Dec. 31, 2024	**F.9.**	**161**	**14**	**309**	**2,705**	
As of Jan. 1, 2023		**161**	**14**	**10**	**2,502**	
Dividends		–	–	–	(234)	
Net income		**–**	**–**	**–**	**553**	
Other comprehensive income after taxes		–	–	–	–	
Comprehensive income		**–**	**–**	**–**	**553**	
Acquisition of non-controlling interests		–	–	(1)	–	
Gains and losses on hedging transactions and costs of hedging reclassified to inventories		–	–	–	–	
As of Dec. 31, 2023	**F.9.**	**161**	**14**	**9**	**2,821**	

	Other components of equity						
	Currency translation	**Reserve for costs of hedging**	**Hedging transactions reserve**	**Revaluations from defined pension benefits (IAS 19)**	**Equity attributable to the shareholders of Knorr-Bremse AG**	**Equity attributable to non-controlling interests**	**Total equity**
	(155)	**9**	**1**	**(24)**	**2,836**	**68**	**2,904**
	–	–	–	–	(264)	(18)	**(282)**
	–	**–**	**–**	**–**	**445**	**32**	**477**
	52	0	(22)	(4)	26	2	**28**
	52	**0**	**(22)**	**(4)**	**471**	**34**	**505**
	–	–	–	–	–	–	–
	–	–	–	(3)	–	–	–
	–	1	1	–	2	–	2
	–	–	–	–	–	(2)	(2)
	(103)	**10**	**(20)**	**(31)**	**3,045**	**82**	**3,127**
	(95)	**(1)**	**(20)**	**(8)**	**2,563**	**65**	**2,628**
	–	–	–	–	(234)	(16)	(250)
	–	**–**	**–**	**–**	**553**	**23**	**576**
	(60)	9	19	(16)	(48)	(4)	(52)
	(60)	**9**	**19**	**(16)**	**505**	**19**	**524**
	–	–	–	–	(1)	(0)	(1)
	–	1	2	–	3	–	3
	(155)	**9**	**1**	**(24)**	**2,836**	**68**	**2,904**

Notes to the Consolidated Financial Statements

of Knorr-Bremse AG, as of December 31, 2024

A. Basis of Preparation

A.1. About the Company

Knorr-Bremse AG (the "Company") is a joint stock company domiciled in Germany. The company's registered office and headquarters are located in Moosacher Str. 80, 80809 Munich, Germany. The company is registered in the City of Munich commercial register under HRB 42031. The consolidated financial statements include the company and its subsidiaries (jointly referred to as the "Group" or "Knorr-Bremse"). The Group is a global manufacturer of brake systems for rail and commercial vehicles and other safety-critical systems.

The product portfolio of the Rail Vehicle Systems division includes braking systems, entrance systems, HVAC systems, sanitary systems, coupling systems, a portfolio of digital solutions and smart services for optimizing rail transportation, power electrics, rail computing and communication systems, signaling technology (control, command, and signaling; CCS) stationary and mobile testing equipment, wiper and wash systems and extensive aftermarket solutions (RailServices).

The product portfolio of the Commercial Vehicles Systems division includes, among other things, pneumatic braking systems (i.e., brake control systems, disk brakes, drum brakes, brake cylinders, valves and pedal units) and steering systems, vehicle dynamics solutions (i.e., anti-lock braking systems and electronic stability programs), driver assistance systems (e.g., emergency braking systems), electronic leveling control, energy supply and distribution systems, including compressors and air treatment, products for boosting fuel efficiency such as engine components and transmission control systems (i.e., vibration dampers, engine air management, transmission control, and gear/clutch actuation) and trailer and aftermarket solutions.

A.2. Accounting principles

The company's consolidated financial statements were prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the European Union (EU), as well as the supplementary provisions of section 315e (1) of the German Commercial Code (HGB). All mandatory standards applicable on the reporting date were implemented. The consolidated statement of income is prepared based on the total cost method.

The consolidated financial statements were approved for publication by the management board on March 20, 2025.

A.3. Measurement bases

The Group consistently applied the following accounting methods to all periods presented in these consolidated financial statements.

The consolidated financial statements were prepared according to historical purchase and production costs with the exception of the following balance sheet items with different measurement bases on the respective reporting dates. Table → 3.07

3.07 MEASUREMENT BASES

Asset	Method
Derivatives	Fair value
Non-derivative financial instruments, measured at fair value through profit or loss	Fair value
Non-derivative financial instruments, measured at fair value through OCI	Fair value
Contingent consideration in the context of a business combination	Fair value
Net defined benefit liability (asset) from defined-benefit plans	Present value of the defined-benefit obligation less the fair value of the plan assets

A.4. Functional and presentation currency

The consolidated financial statements are presented in euro, the company's functional currency. All financial information presented in euros is rounded to million of euros (in € million), unless otherwise indicated. This may result in rounding differences.

A.5. Use of discretionary decisions and estimates

The preparation of the consolidated financial statements requires a certain amount of discretionary decisions, estimates, and assumptions by the Executive Board, which affect the application of the accounting methods and the stated amounts of assets, liabilities, income, and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Changes of estimates are reported prospectively.

Discretionary decisions in the application of accounting policies influence the amounts recognized in the consolidated financial statements primarily in relation to revenues recognized over time in the Rail Vehicle Systems segment. This concerns in particular the identification of individual performance obligations from customer contracts as well as the estimation of the expected total costs and assumptions and estimation uncertainty in relation to planned project costs (Chapters D.1 and E.1.) Discretionary decisions also apply in relation to the acquisition of subsidiaries and determination of the fair value of the consideration transferred (including contingent consideration) as well as in provisional determination of the fair values of the identifiable assets and liabilities acquired (Chapter C.3.).

Material effects on the consolidated financial statements as a result of assumptions and estimation uncertainty particularly occur in the measurement of defined-benefit obligations resulting from key actuarial assumptions (Chapters D.9. and F.11.) and in the measurement of write-downs resulting from expected credit losses relating to receivables and contract assets resulting from assumptions about probabilities of default (Chapters D.11. and F.15.2.). There are also assumptions and estimation uncertainty in the recognition as well as measurement of other provisions for litigation and warranties and contingent liabilities (Chapters D.10. and F.12. as well as H.8.). The measurement of the warranty provisions is based on estimates of costs regarding expected warranty claims.

B. Accounting Standards

B.1. Accounting standards issued by the IASB and applied for the first time

These consolidated financial statements are prepared by the Group in accordance with the IFRS regulations. All IFRS accounting standards that were mandatory for application in the European Union as of December 31, 2024, are applied. Early application options for new financial reporting standards before mandatory application are not used.

Amendments to IAS 7 and IFRS 7: Supplier Finance Arrangements

The amendments to IAS 7 add disclosure requirements that ask entities to provide qualitative and quantitative information about supplier finance arrangements.

The amendments include specific transitional provisions for the reporting period of initial application. Thereafter, entities will not need to disclose:

- comparative information for reporting periods presented before the beginning of the annual reporting period in which the amendment is first applied; and
- the information required by IAS 7.44H(b)(ii)-(iii) as at the beginning of the annual reporting period in which the amendment is first applied;

The required information resulting from these amendments is presented in Chapters F.13. and H.1.6.

Other Amendments

The following new or amended standards have no or no material effects on the consolidated financial statements.

- Amendments to IAS 1: Classification of Liabilities as Current or Non-current and Non-current Liabilities with Covenants
- Changes to IFRS 16: Lease Liability in a Sale and Leaseback

B.2. Standards issued by the IASB that have not yet been applied

In addition to the standards presented above, the IASB has also issued additional standards, interpretations, and amendments to standards or interpretations which are not required to be applied at present and which, in some cases, still require adoption in EU law ("endorsement") to be applicable. Table → 3.08

3.08 ACCOUNTING STANDARDS ISSUED BY THE IASB

New or Amended Standards and Interpretations	Contents of, or Amendment to, Standard or Interpretation	Date of Mandatory Application in EU*
Amendments to IAS 21	Lack of Exchangeability	January 1, 2025
Amendments to IFRS 9 and IFRS 7:	Amendments to the Classification and Measurement of Financial Instruments	January 1, 2026
Annual Improvements to IFRS Accounting Standards	Volume 11	January 1, 2026
Amendments to IFRS 9 and IFRS 7:	Contracts Referencing Nature-dependent Electricity	January 1, 2026
IFRS 18	Presentation and Disclosure in Financial Statements	January 1, 2027
IFRS 19	Subsidiaries without Public Accountability: Disclosures	January 1, 2027

* Applicable to annual periods beginning on or after the date specified.

With the exception of IFRS 18 shown below, the Group currently does not assume that applying these standards, interpretations and changes will have a significant effect on the presentation of the financial statements.

IFRS 18: Presentation and Disclosure in Financial Statements

IFRS 18 replaces IAS 1, carrying forward many of the requirements in IAS 1 with only limited wording changes and complementing them with new requirements. Some of the requirements from IAS 1 have also been moved to IAS 8 or to IFRS 7. In addition, the IASB made minor changes to IAS 7 and IAS 33.

The main changes in the new standards compared with the previous requirements in IAS 1 are as follows:

- New defined categories and sub-totals in the statement of profit or loss;
- Special disclosure of management-defined performance measures (MPMs) in the notes; and
- New requirements for the aggregation and disaggregation of information in IFRS financial statements.

In addition, all entities will be required to use the operating profit sub-total as the starting point for reporting cash flows from operating activities using the indirect method.

IFRS 18 applies to annual reporting periods beginning on or after January 1, 2027, though early application is permitted. The standard must be applied retrospectively in accordance with certain transitional provisions.

The Group expects that applying the standard will have material effects on the consolidated financial statements, particularly as regards the presentation of the statement of income, the statement of cash flows and the additional disclosure requirements for MPMs.

The Group is also considering the effects on the aggregation of information in the financial statements, including items currently designated as “Other”.

C. Consolidation

C.1. Principles of consolidation

The consolidated financial statements include the financial statements of the company and all material affiliated companies. Subsidiaries controlled by the Group are fully consolidated. The Group controls a company if it is exposed to fluctuating returns or is entitled to these returns and has the ability to influence these returns using its power of control over the company. The financial statements of subsidiaries are contained in the consolidated financial statements from the date on which the control starts and up to the date on which the control ends.

The Group recognizes business combinations based on the acquisition method. As part of the capital consolidation, the acquisition costs of the acquired shares are offset against the equity of the subsidiaries assigned to the Group. The acquired, identifiable net assets and the consideration transferred are generally recognized at fair value. A positive difference that arises between the acquisition costs of the acquired shares and the identifiable net assets upon initial consolidation is recognized as goodwill. All goodwill is reviewed annually for impairment. A negative difference is reported directly in profit or loss.

The consideration transferred does not contain any amounts associated with the fulfillment of previously existing relationships. Such amounts are fundamentally reported in profit and loss.

Any conditional obligation to provide consideration is reported at the fair value at the time of acquisition. Otherwise, other contingent considerations are measured at fair value on each reporting date and subsequent changes to the fair value of the contingent considerations are reported in profit and loss.

Non-controlling interests are recognized with their corresponding share of the identifiable net assets of the acquired company at the date of acquisition.

Put options over remaining non-controlling interests agreed as part of business combinations are recognized in anticipation of the acquisition of these interests. In this respect, no non-controlling interests are recognized. Changes in the measurement of the put options are recognized in the financial result.

Associated companies are companies in which the Group has significant influence, but no control or joint control in relation to financial and business policy. A joint venture is an agreement over which the Group exercises joint control, whereby the Group has rights to the net assets of the agreement rather than rights to its assets and obligations for its liabilities.

Shares in associated companies and joint ventures are reported based on the equity method. They are initially recognized at the acquisition costs, which also include transaction costs. After the initial recognition, the consolidated financial statements contain the Group's share in the comprehensive income, less distributions received, of the investments reported based on the equity method, the change in value of the amortized difference and any write-downs to be recognized up to the date on which the significant influence or joint control ends. The company conducts an impairment test for shares in associated companies and joint ventures if there are objective indications of impairment in companies accounted for using the equity method. If such indications exist, Knorr-Bremse determines the need to adjust the value. If the carrying amount exceeds the recoverable amount of an investment, the carrying amount is written down to the recoverable amount. The recoverable amount is the higher of the fair value less costs to sell and the value in use.

For interests in joint arrangements that are to be classified as a joint operation according to IFRS 11, the Group recognizes its interest in any jointly controlled or created assets, liabilities, revenue, or expenses. These are included in the financial statements under the respective item designations.

All intragroup receivables, payables, expenses, and income are eliminated within the scope of the debt consolidation as well as the consolidation of expense and income. Unrealized gains from transactions with companies that are recognized based on the equity method are derecognized against the investment in the amount of the Group's interest in the associated company. Unrealized losses are eliminated in the same manner as unrealized gains.

C.2. Foreign currency translation

Foreign currency receivables and payables of the companies included in the consolidated financial statements are reported at the spot exchange rate on the date of the transaction. These items are translated at the closing rate on the reporting date.

Annual financial statements of consolidated Group companies prepared in a foreign currency are translated using the modified reporting date method. Accordingly, assets and liabilities from foreign Group companies are translated at the closing rate on the reporting date, while income and expenses from foreign Group companies are translated at the average rate for the respective fiscal year. The resulting currency translation differences are reported in other comprehensive income and recognized in the line item currency translation as long as the currency translation difference is not assigned to the non-controlling interests.

The exchange rates on which the foreign currency translation is based, which have a material effect on the consolidated financial statements are listed below: **Table → 3.09**.

3.09 CURRENCY EXCHANGE RATES

		Dec. 31, 2024		Dec. 31, 2023	
EUR per foreign currency unit		Closing rate	Average rate	Closing rate	Average rate
USA	USD	0.96256	0.92412	0.90498	0.92461
China	CNY	0.13187	0.12842	0.12737	0.13058
Hungary	HUF	0.00243	0.00253	0.00261	0.00262
Czech Republic	CZK	0.03971	0.03981	0.04045	0.04167
United Kingdom	GBP	1.20601	1.18124	1.15068	1.14962
India	INR	0.01124	0.01105	0.01088	0.01120
Japan	JPY	0.00613	0.00610	0.00640	0.00658
Hong Kong	HKD	0.12394	0.11844	0.11586	0.11810
Brazil	BRL	0.15563	0.17160	0.18650	0.18505

C.3. Changes to the Group

Additions to the consolidated companies

Please refer to the information in chapter C.1. for the accounting methods for business combinations.

ACQUISITION OF KB SIGNALING

Through a purchase agreement dated April 19, 2024, and the subsequent closing of the transaction on August 30, 2024, Knorr Brake Holding Corporation, Watertown, New York, US acquired 100% of Alstom Signaling Inc., West Henrietta, New York, US, which was renamed KB Signaling Inc. at the time of closing and comprises the subsidiaries KB Signaling Operation LLC, Grain Valley, Montana, US and B&C Transit Inc., Oakland, California, US.

The acquisition sees Knorr-Bremse in North America stepping into the signaling technology business (control, command, and signaling; CCS), which the company wishes to enhance and internationalize decisively with new and digital solutions.

In the 2024 fiscal year, KB Signaling Inc. and its subsidiaries added revenues of € 101 million and a profit of € 10 million to consolidated earnings.

Consideration transferred

The preliminary purchase price for KB Signaling is € 621 million, which was paid in full in cash as of December 31, 2024. The final purchase price depends on the agreed closing accounts, which had not yet been conclusively agreed by the contracting parties by the time the consolidated financial statements were being prepared. Contingent consideration arising from the business combination was reported with an acquisition-date fair value of 0. The fair value measurement is regularly reviewed.

Acquisition-related costs

The Group has incurred €8 million in costs associated with the business combination for due diligence, legal fees and notary fees to date. These costs are recognized in other operating expenses.

Identifiable assets and liabilities acquired

The provisionally determined fair values of the assets and liabilities acquired at the date of acquisition are summarized below: Table → 3.10

3.10 FAIR VALUES OF THE ASSETS AND LIABILITIES ACQUIRED

in € million	
Customer relationships	85
Patented and unpatented technologies	60
Other intangible assets	3
Property, plant, and equipment	52
Deferred tax assets	128
Inventories	93
Trade accounts receivable	45
Other financial assets	8
Other assets	11
Contract assets	73
Cash and cash equivalents	5
Provisions for other employee benefits	(5)
Other provisions	(26)
Trade accounts payable	(15)
Financial liabilities	(38)
Other liabilities	(54)
Income tax liabilities	(0)
Total identifiable net assets acquired	**425**
Gross trade accounts receivable	45
Expected irrecoverable portion	(0)
Net trade accounts receivable	**45**

Determination of the fair values of the material assets acquired

The royalty method was used to measure the value of patented and unpatented technologies. Here, hypothetical license fees were estimated that the company would have to pay to use the technologies if it did not own them. These royalty rates were projected over the estimated useful life of the technologies and discounted to the measurement date.

The residual value method was used to measure customer relationships. This considers the present value of the expected net cash flows generated by the customer relationships, with the exception of all cash flows associated with supporting assets.

The net realizable value calculated using the market comparison method was used to measure inventories. Net realizable value is defined as the estimated selling price less the estimated costs of completion and the estimated costs necessary to make the sale.

Fair values measured on a provisional basis

Initial recognition of the acquisition of KB Signaling was only provisionally defined at the end of the reporting period. In particular, the fair values of the acquired assets and liabilities listed above were still determined provisionally; definitive independent valuations were not yet available.

Goodwill

The goodwill as a result of the acquisition was recognized as follows: Table → 3.11

3.11 DETERMINATION OF GOODWILL

in € million	
Consideration transferred	621
Fair value of the identifiable net assets	(425)
Goodwill	**196**

The goodwill primarily results from the future development potential of the existing technologies, the anticipated broadening of the product and customer base and the know-how of the staff. This is allocated to the Rail Vehicle Systems segment. The goodwill recognized is not tax-deductible.

If the acquisition had occurred at the start of the fiscal year, consolidated revenue would have increased by a further € 214 million to € 8,097 million and consolidated net income would have risen by € 12 million to € 489 million. The calculation of these amounts is based on the assumption that the fair values from the purchase price allocation at the date of acquisition would also have been valid had the acquisition taken place on January 1, 2024.

As described above, the purchase price allocation and the purchase price as well as the contingent consideration are still determined provisionally. The final figures will be determined within a one-year period through August 31, 2025.

Main disposals of consolidated companies

SALE OF THE KIEPE GROUP

The Kiepe Group companies allocated to the Rail Vehicle Systems division were disposed of as part of a portfolio adjustment which closed at the end of January 2024. The Kiepe Group comprises Kiepe Electric GmbH, based in Düsseldorf, Germany, and the subsidiaries Kiepe Electric Schweiz AG, based in Niederbuchsiten, Switzerland; Kiepe Electric S.r.l., based in Cernusco sul Navigilio, Italy; Kiepe Electric Corporation, based in Vancouver, Canada; Kiepe Electric LLC., based in Alpharetta, USA; and Heiterblick Projektgesellschaft mbH, based in Leipzig, Germany. The buyer of the Kiepe Group is Heramba GmbH, Düsseldorf, Germany, for Kiepe Electric GmbH, Düsseldorf, and Heramba Holdings, Inc., Newark, USA, for Kiepe Electric LLC., Alpharetta, USA.

The Kiepe Group assets and corresponding liabilities were recognized as assets held for sale and corresponding liabilities as of December 31, 2023.

As part of the deconsolidation effective as of January 31, 2024, the Group disposed of the following assets and liabilities: Table → 3.12

3.12 SALE OF THE KIEPE GROUP

in € million	Jan. 31, 2024
Assets	
Intangible assets	16
Property, plant, and equipment	25
Other financial assets	3
Deferred tax assets	46
Non-current assets	**89**
Inventories	55
Trade accounts receivable	41
Other financial assets	1
Other assets	5
Contract assets	26
Cash and cash equivalents	22
Current assets	**150**
Liabilities	
Provisions for pensions	4
Provisions for other employee benefits	1
Other provisions	18
Financial liabilities	2
Deferred tax liabilities	47
Non-current liabilities	**72**
Provisions for other employee benefits	0
Other provisions	23
Trade accounts payable	18
Financial liabilities	6
Other liabilities	3
Contract liabilities	61
Income tax liabilities	0
Current liabilities	**111**
Attributable goodwill	2
Total net assets disposed of	**59**

The sale price for 85% of the shares was € 55 million. Knorr-Bremse maintains a put option to tender the remaining 15% interest to the buyer until December 31, 2025. Similarly, the buyer maintains a call option to acquire this interest until that same point in time. There was a € 5 million loss on deconsolidation that was recognized in the other financial result. € 1 million of the purchase price went to the Group in late 2023 and € 3 million in early 2024. The remaining purchase price receivable resulting from the sale of the company was written down in full as of December 31, 2024.

In an agreement dated June 19, 2024 with an addendum dated November 18, 2024, the Group extended a € 31 million bridge loan to Kiepe Electric GmbH, of which € 20 million had been disbursed as of December 31, 2024. The bridge loan is due within one year and was granted at arm's length. As of December 31, 2024, the bridge loan was written down in the amount of € 8 million.

The remaining 15% interest in Kiepe Electric GmbH is accounted for using the equity method because Knorr-Bremse can exercise a significant influence on account of other business relationships (for example on the basis of the bridge loan and assumed warranties). The equity-accounted carrying amount of the investment was written down in full as of December 31, 2024.

DISPOSAL OF RUSSIA BUSINESS

In connection with the Russian invasion of Ukraine, Knorr-Bremse made the decision to dispose of Knorr-Bremse Systems for Commercial Vehicles OOO, Moscow, Russia, which is part of the Commercial Vehicle Systems division. Knorr-Bremse signed a sale agreement for the two companies on November 29, 2023. The transaction closed on July 10, 2024.

The assets and corresponding liabilities of Knorr-Bremse Systems for Commercial Vehicles OOO were recognized as assets held for sale and corresponding liabilities as of December 31, 2023.

In connection with the deconsolidation, the assets and liabilities shown in **Table → 3.13** left the Group.

3.13 DISPOSAL OF RUSSIA BUSINESS

in € million	July 10, 2024
Trade accounts receivable	1
Other financial assets	0
Other assets	1
Cash and cash equivalents	3
Current assets	**5**
Liabilities	
Other provisions	1
Financial liabilities	0
Deferred tax liabilities	0
Non-current liabilities	**1**
Other provisions	0
Trade accounts payable	1
Financial liabilities	0
Other liabilities	1
Contract liabilities	1
Income tax liabilities	0
Current liabilities	**3**
Total net assets disposed of	**1**

The sale price was € 1 million. Taking cumulative historical currency translation into account, there was a € 4 million loss on deconsolidation that was recognized in the other financial result. The Group has not yet received any significant cash inflows from the purchase price.

DISPOSAL OF R.H. SHEPPARD

R.H. Sheppard, allocated to the Commercial Vehicle Systems division, was disposed of as part of a portfolio adjustment which was signed and closed on December 20, 2024. R.H. Sheppard comprises R.H. Sheppard Co., Inc., Hanover, US and the associated company China Source Engineered Components Trading Corporation Ltd., Shanghai, China.

In connection with the deconsolidation, the assets and liabilities shown in Table→ 3.14 left the Group.

3.14 DISPOSAL OF R.H. SHEPPARD

in € million	Dec. 20, 2024
Assets	
Intangible assets	4
Property, plant, and equipment	43
Investments accounted for using the equity method	2
Other assets	1
Deferred tax assets	4
Non-current assets	**54**
Inventories	55
Trade accounts receivable	18
Other financial assets	0
Other assets	1
Cash and cash equivalents	0
Current assets	**74**
Liabilities	
Other provisions	2
Financial liabilities	2
Deferred tax liabilities	7
Non-current liabilities	**11**
Other provisions	4
Trade accounts payable	34
Financial liabilities	5
Other liabilities	0
Current liabilities	**42**
Attributable goodwill	2
Total net assets disposed of	**77**

The sale price was € 16 million, which was paid in full in cash as of December 31, 2024. There was a € 58 million loss on deconsolidation that was recognized in the other financial result.

C.4. Composition of the Group

Table → 3.15

For details on the group of consolidated companies, refer to the list of shareholdings pursuant to section 313 (2) of the German Commercial Code (HGB) in Chapter H.12.

3.15 COMPOSITION OF THE GROUP

	2024	2023
Number of fully consolidated subsidiaries	**111**	**125**
Domestic	10	12
International	101	113
Proportionately consolidated companies	**1**	**1**
Domestic	–	–
International	1	1
Associated companies	**6**	**8**
Domestic	3	2
International	3	6
Non-consolidated subsidiaries	**4**	**8**
Domestic	–	1
International	4	7
Investments	**4**	**3**
Domestic	1	1
International	3	2

The number of consolidated companies decreased slightly. The main additions and disposals are described in Chapter C.3. Further changes arise in particular from liquidations and mergers of companies not classified as significant, as part of portfolio adjustments.

C.5. Significant non-controlling interests

Table → 3.16

3.16 SIGNIFICANT NON-CONTROLLING INTERESTS

Name	Registered Office/Country of Foundation	Ownership Shares Constituting Non-controlling Interests	
In %		Dec. 31, 2024	Dec. 31, 2023
Knorr-Bremse CARS LD Vehicle Brake Disc Manufacturing (Beijing) Co., Ltd.	Daxing, China	50.0	50.0

The Group holds a 50% interest in Knorr-Bremse CARS LD Vehicle Brake Disc Manufacturing (Beijing) Co., Ltd., Daxing, China (Knorr-Bremse CARS). Knorr-Bremse has a controlling interest in this company due to having the possibility to appoint a majority of members in the relevant bodies. This company is therefore fully consolidated in accordance with IFRS 10.

Summarized financial information for Knorr-Bremse CARS prepared in accordance with IFRS is presented in Table → 3.17. This is information before eliminations of transactions made with other Group companies.

3.17 KNORR-BREMSE CARS

in € million	2024	2023
Revenues	225	152
Net income	43	30
Profit share attributable to non-controlling interests	21	15
Other comprehensive income	6	4
Comprehensive income	45	27
Total comprehensive income attributable to non-controlling interests	22	13
	Dec. 31, 2024	Dec. 31, 2023
Current assets	124	83
Non-current assets	12	11
Current liabilities	(62)	(37)
Non-current liabilities	(14)	(15)
Net assets	60	42
Net assets attributable to non-controlling interests	30	21
	2024	2023
Cash flows from operating activities	43	26
Cash flows from investing activities	(0)	(0)
Cash flows from financing activities	(26)	(25)
Net increase in cash and cash equivalents	16	1
	2024	2023
Dividends paid during the year to non-controlling interests	13	12

C.6. Investments in associates

The aggregate carrying amount of investments in associates accounted for using the equity method was € 36 million as of December 31, 2024 (2023: € 61 million). These companies had a cumulative pro rata loss from continuing operations of € 16 million (2023: € 20 million). This includes the proportional net profits.

D. Notes on Accounting Policies

D.1. Revenues

Knorr-Bremse generates revenue from contracts with customers in the two divisions Rail Vehicle Systems and Commercial Vehicle Systems, which also represent the reportable segments of the consolidated financial statements. Revenue is recognized in accordance with IFRS 15 when the customer has obtained control over the goods and services which Knorr-Bremse is obligated to perform and provide. Control is either transferred at a point-in-time or over a period of time.

Rail Vehicle Systems division

Revenue in the Rail Vehicle Systems segment is the result of short-term services and deliveries, and primarily for replacement part deliveries in the aftermarket segment. Each of these deliveries and services represents a separate performance obligation. Revenue for such services is recognized at the time of delivery. The amount of revenue is determined based on the contractually agreed prices.

The timing of revenue recognition is based on whether the contract represents a project or not. Most OE business is project business. Projects in the aftermarket segment, which take the form of, e.g., long-term service contracts, are an exception.

The majority of the project business relates to contracts for the design, production, and delivery of braking systems with a precisely defined function for a certain number of trains or locomotives. There are projects with similar structures for door systems and air conditioning systems. In projects, the entire scope of services represents one performance obligation. This is primarily because the engineering services form the framework for the systems of all trains or locomotives to be outfitted with hardware in the specific project. Therefore, there is a very high level of dependency between the engineering of the system and the hardware, as well as the production, delivery and commissioning of the system. Therefore, Knorr-Bremse performs a high percentage of integration services for each single train or each single locomotive for a project. In addition, this integration service applies to all systems to be outfitted in a specific project: all of them must meet exactly the same functionality.

When assessing revenue recognition over time, Knorr-Bremse applies the regulation of IFRS 15.35(c) for project agreements. There is no alternative use for Knorr-Bremse for systems installed in the trains or locomotives, since, simply for practical reasons, it is not possible to use customer- and vehicle-specific systems that have been installed and put into operation for some other use. Therefore, revenue from project business is recognized over time if Knorr-Bremse has a right to "compensation for services performed up to a certain time" over the entire term of the project. This assessment is based on an assessment of the respective contract with the customer. In particular, the question here is whether the customer has the right to terminate the contract without requiring any failure to perform on Knorr-Bremse's part. If there is no such right of termination, Knorr-Bremse has a right to satisfy the contract. In this case, the requirement of "compensation for services performed up to a certain time" is fulfilled. If there are statutory termination rights without any failure by Knorr-Bremse, there is a right to compensation. If the contract grants a termination right to the customer without any failure by Knorr-Bremse, the question is whether Knorr-Bremse would have a right in such cases to compensation of costs incurred up until such a termination becomes effective, including a margin share. Only if such right is confirmed is the criterion of "compensation for services performed up to a certain time" met and revenue recognized over time. The percentage-of-completion method is used to recognize revenue over time. Progress is determined by using the cost-to-cost method; the costs incurred are compared to the planned costs for each project. This determines the stage of progress and the revenue to be recognized up to a period end date. By applying this method, the engineering input and hardware delivery performed by Knorr-Bremse are reflected properly in revenue across the entire term of a project, since it is applied independent of invoicing or payment dates. Estimates are required in particular when determining planned costs and are dependent on the range of delivery and performance. The amount of revenue is determined based on the contractually agreed prices for the contractually stipulated quantity of systems. Generally, these are fixed prices, possibly supplemented by price escalation clauses. The effects of price escalation clauses are taken into consideration if it is possible to reliably assess requirements for such clauses to become effective. Price escalation clauses or other variable consideration is included in the transaction price, if it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur as soon as the uncertainty in connection with the variable consideration has been resolved. The amount of variable consideration is determined on the basis of the most probable amount.

Knorr-Bremse is generally entitled to invoice all hardware deliveries in projects. Customers make advance payments; however, these tend to be low due to the ongoing invoices for delivered hardware components. Therefore, there are generally no significant financing components. Engineering work required after the contract is concluded but before the start of hardware production and delivery, as well as the production and delivery of hardware, generally result in the recognition of contract assets. The partially agreed compensation payments for one-time engineering services, invoices for delivered hardware and customer advance payments have a counter effect. These payments and invoices result in contract liabilities depending on their amount and degree of progress.

In addition to the classic project business, the Rail Vehicle Systems segment has long-term service contracts. Under fully comprehensive service contracts, the customer is provided with a full range of replacement parts, maintenance, and overhaul work at agreed intervals, as well as repairs and training over the life of the contract. They often cover the full 20-to-30-year service lives of the vehicles. If the goods and services included in the package are purchased separately by the customer and invoiced separately by Knorr-Bremse, the associated revenue is recognized as separate current performance obligations at the time of delivery. The amount of revenue is determined based on the contractually agreed prices.

Another contract model for long-term service contracts specifies consideration on the basis of contractually agreed fixed prices, which are paid by the customer either on a periodically recurring basis or on the basis of kilometers traveled by the rail vehicles. In return, the customer is entitled to call off the materials and services defined in the contract during the life of the contract. These goods and services are not invoiced separately. These cases represent a stand-ready obligation under IFRS 15.26(e), for which revenue is recognized over time in accordance with IFRS 15.35(a).

Payments of nomination fees from Knorr-Bremse to customers are capitalized and amortized against revenue over the term of series delivery. The development work required for the start of series production is generally based on framework agreements without binding order of quantities and may last up to several years. If future series delivery is at least highly likely to occur based on such framework agreements and costs are covered, these development costs are capitalized as costs to fulfill the anticipated series production and gradually reversed at the start of series production over the projected term. The reversals are recognized in changes in inventory. Compensation payments by customers during the development phase are recognized as contract liabilities and amortized against revenue with the start of series production over the term of series production.

In general, there is a warranty assuring freedom from defects and over the term determined by law. Customary longer terms may exist in the project business.

Practical expedients are used in relation to the disclosure of significant financing components (IFRS 15.63) and the costs of obtaining a contract with an amortization period of up to one year (IFRS 15.94).

Commercial Vehicle Systems division

In the Commercial Vehicle Systems segment, revenue in OE and aftermarket business is generated from the series production of components for braking systems and other subsystems. Ordering is primarily based on electronic processes in which an ordered quantity only becomes binding at the start of the so-called frozen zone. The frozen zone is a certain number of days before the notified delivery deadline. Each delivery represents a separate performance obligation according to IFRS 15. In this case, revenue is recognized upon transfer of risk. The amount of revenue is determined based on the prices set forth in framework agreements or individual contracts and the quantities delivered.

The Knorr-Bremse Group offers service contracts for certain products sold. An advance payment or payment of installments of a consistent amount across the contract term is typical for such contracts. The revenue from these contracts is deferred if the customer has made an advance payment and recognized in profit or loss across the contract term.

Payments of nomination fees from Knorr-Bremse to customers are capitalized and amortized against revenue over the term of series delivery. The development work required for the start of series production is generally based on framework agreements without binding order of quantities and may last up to several years. If future series delivery is at least highly likely to occur based on such framework agreements and costs are covered, these development costs are capitalized as costs to fulfill the anticipated series production and gradually reversed at the start of series production over the projected term. The reversals are recognized in changes in inventory. Compensation payments by customers during the development phase are recognized as contract liabilities and amortized against revenue with the start of series production over the term of series production.

Frequently, there are agreements on volume bonuses for series delivery, which Knorr-Bremse must reimburse to the customer depending on the defined delivery quantities for one year. The delivery quantity for the completed period is used to allocate and measure the reimbursement obligations according to the contractually defined quantity corridors. These reimbursement obligations are recognized as a decrease in revenue and recorded as a liability in the balance sheet.

In general, there is a warranty assuring freedom from defects and over the term determined by law.

D.2. Government grants

Government grants are recognized if adequate certainty exists that the conditions associated with the grant will be met and the grants will be provided.

These can be divided into grants for assets and performance-related grants.

The Company deducts grants for assets from the carrying amount of the asset. Performance-related grants are reported in other operating income.

D.3. Income taxes

Current taxes are the expected tax debt or tax claim in relation to the taxable income or tax loss for the fiscal year based on the tax rates that apply on the reporting date, or which will be in place shortly, as well as all adjustments to the tax debt in previous years. In addition, the current tax also includes adjustments for any tax payments or refunds due for any years not yet finally assessed (however without interest payments or refunds). In case amounts recognized in the tax returns probably cannot be realized (uncertain tax positions), tax liabilities are recognized. The amount is calculated from the best possible estimate of the expected tax payment (expected value or most likely value of the tax uncertainty). Current tax debts also include all tax debts that arise as a result of dividends.

Deferred taxes are recognized with regard to temporary differences between the carrying amounts of the assets and liabilities for group accounting purposes and the amounts used for tax purposes. Deferred taxes are not recognized for:

- temporary differences in the event of the initial reporting of assets or debts for a transaction that does not relate to a business combination and that does not influence the accounting earnings before taxes or the taxable earnings
- temporary differences in connection with shares in subsidiaries, associates, and jointly controlled entities, if the Group is able to control the timing of the reversal of the temporary differences and it is likely that they will not be reversed in the foreseeable future
- taxable temporary differences in the event of the initial reporting of goodwill.

A deferred tax claim is recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is likely that future taxable earnings will be available for which they can be used. Future taxable profits are determined on the basis of the individual business plans of the subsidiaries, taking into account the reversal of temporary differences. Unrecognized deferred tax claims are reassessed on every reporting date and recognized in the amount likely to be permitted by the realization of future taxable earnings.

Deferred tax liabilities are additionally recognized for temporary differences arising from future dividend distributions of a subsidiary (outside basis differences).

Deferred tax claims are reviewed on every reporting date and reduced to the extent to which it is no longer likely that the associated tax benefit will be realized; write-ups are reported if the probability of future taxable earnings improves.

Deferred taxes are measured based on the tax rates, which are expected to be applied to temporary differences, as soon as they reverse, namely, using tax rates that apply or have been announced on the reporting date.

The measurement of deferred taxes reflects the tax consequences that arise from the Group's expectation with regard to the manner of recognition of the carrying amounts of its assets and the settlement of its debts as of the reporting date.

Deferred tax claims and deferred tax debts are netted if certain conditions are met.

D.4. Intangible assets

Intangible assets with a determinable useful life that were not acquired as part of a business combination are recognized at the acquisition or production costs less cumulative amortization and cumulative impairment.

The goodwill resulting from a business combination is recognized with the acquisition costs, less any necessary impairment.

Development projects are capitalized at acquisition or production costs, including development-related overheads, if the development costs can be reliably measured, the product or process is technically and commercially appropriate, a future commercial benefit is probable, and the Group intends and has adequate resources to complete the development and use or sell the asset. The assumptions made include estimation uncertainty that may effect measurement.

Development projects are measured at the acquisition or production costs, less cumulative amortization and cumulative impairment expenses.

Intangible assets with a determinable useful life are subject to linear and amortization over their estimated useful lives. The amortization is fundamentally recognized in profit and loss. Goodwill as well as intangible assets without a determinable useful life are not subject to regular and amortization. Of the capitalized intangible assets, only goodwill has an indefinite useful life.

The estimated useful lives of the other capitalized intangible assets are:

- Licenses and acquired rights: 1-20 years
- Brands and customer relationships: 3-20 years
- Internally generated intangible assets: 3 – 10 years

The goodwill and intangible assets in development are tested for impairment each year.

D.5. Property, plant, and equipment

Property, plant, and equipment (PPE) are measured at acquisition or production costs, less cumulative depreciation and cumulative impairment expenses.

Depreciation is calculated on a scheduled, linear basis over the estimated useful life. Depreciation is fundamentally recognized in profit and loss.

Land is not subject to regular depreciation.

The estimated useful lives of significant property, plant, and equipment assets for the current year and comparison years amount to:

- Buildings: 3-50 years
- Technical equipment and machinery: 3-25 years
- Other equipment, factory and office equipment: 1-25 years

D.6. Leases

Leases are accounted for in accordance with IFRS 16. At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Group as lessee

The Group recognizes and measures all leases (except for short-term leases and leases for which the underlying asset is of low value) in accordance with a single model. It recognizes liabilities for making lease payments and right-of-use assets for the right to use the underlying asset.

RIGHT-OF-USE ASSETS

The Group recognizes right-of-use assets as of the commencement date of the lease (i.e., as of the date on which the underlying leased asset is available for use). Right-of-use assets are measured at cost less any accumulated depreciation and any accumulated impairment losses and adjusted for any remeasurement of the lease liability. The costs of the right-of-use assets contain the lease liabilities recognized, the initial direct costs incurred and the lease payments made at or before the commencement date, less any lease incentives received and the estimate of costs for dismantling or removing the underlying asset or for restoring the underlying asset or the site on which it is located, less any lease incentives received.

Right-of-use assets are depreciated on a straight-line basis as follows over the shorter of the lease term and the expected useful life of the leased asset:

- Land and buildings: 1 to 78 years
- Equipment and machinery: 1 to 15 years
- Vehicles and other equipment: 1 to 9 years

If ownership of the leased asset transfers to the Group at the end of the lease term or the exercise of a purchase option is reflected in the costs, the depreciation will be calculated on the basis of the expected useful life of the leased asset.

The right-of-use assets will also be tested for impairment. Details on the accounting policies can be found in Chapter D.13.

The Group's right-of-use assets are included in "property, plant and equipment".

LEASE LIABILITIES

On the commencement date, the Group recognizes the lease liabilities at the present value of the lease payments to be made over the lease term. In determining the lease term, extension and termination options are taken into account, if it is reasonably certain that they will be exercised or not exercised (see Chapter H.11 for details). The lease payments include fixed payments (including in-substance fixed payments), less any lease incentives receivable, variable lease payments that depend on an index or rate and amounts expected to be payable under residual value guarantees. The lease payments further include the exercise price of a purchase option if the Group is reasonably certain to exercise that option and payments of penalties for terminating the lease if the lease term reflects the Group exercising an option to terminate the lease.

Variable lease payments that do not depend on an index or a rate in the period in which the event or condition that triggers this payment occurs are recognized as an expense (unless the payments are incurred to produce inventories).

When calculating the present value of the lease payments, the Group normally uses its incremental borrowing rate at the commencement date because the interest rate implicit in the lease cannot be readily determined. Following the commencement date, the amount of the lease liability is increased to reflect interest and reduced to reflect the lease payments made. In addition, the carrying amount of the lease liability is revalued in the event of changes to the lease, changes to the lease term, changes to the lease payments (e.g., changes in future lease payments as a result of a change in an index or a rate used to determine those payments) or in the event of a change in the assessment of an option to purchase the underlying asset.

The Group's lease liabilities are included in "financial liabilities" (see Chapters F.14. and H.11.).

SHORT-TERM LEASES AND LEASES OF LOW-VALUE ASSETS

The Group applies the exemption for short-term leases (i.e., leases whose term from the commencement date is a maximum of twelve months and which do not include a purchase option) for short-term leases of machinery and technical equipment. It also applies the exemption for leases of low value assets to leases of items of office equipment classified as low value. Lease payments for short-term leases and for leases of low value assets are recognized as an expense on a straight-line basis over the lease term.

D.7. Inventories

Inventories are essentially valued at the lower of the acquisition or production costs and the net realizable value. Unfinished and finished products include manufacturing costs that can be attributed directly to the production process as well as an adequate share of production overheads. Production-related administration costs are also capitalized.

The net realizable value is calculated based on the proceeds that can be realized on the market in the normal course of business, less the costs for manufacturing the product and sales costs.

D.8. Assets or disposal groups held for sale

Non-current assets or disposal groups are classified as "assets held for sale and discontinued operations" if it is highly probable that the associated carrying amount will largely be realized by a sale transaction and not by continued utilization.

Non-current assets and also non-current and current assets included in disposal groups are recognized at the lower of the carrying amount and fair value less costs of disposal. Any impairment loss is first allocated to goodwill and then to the remaining assets and liabilities on a pro rata basis. Intangible assets and PPE are no longer subject to regular depreciation and amortization, and any associated company recognized using the equity method is no longer recognized using the equity method as soon as it is classified as held for sale.

D.9. Employee benefits

The Group recognizes defined contribution as well as defined benefit plans.

The obligations for defined-contribution plans are of secondary importance in the Group's view. They are reported as an expense once the associated work has been performed.

The Group's net obligation with regard to defined-benefit plans is calculated separately for every plan by estimating the benefits earned by the employees in the current period and earlier periods. This amount is discounted and the fair value of any plan asset is deducted from this amount.

The calculation of defined-benefit obligations is based on actuarial reports on the basis of the projected unit credit method.

Revaluations of the net defined-benefit liability are reported directly in other comprehensive income. The revaluation includes actuarial profits and losses, the income from plan assets (not including interest) and the impact of any asset cap (not including interest).

D.10. Other provisions

Provisions are recognized for legal or constructive obligations toward third parties that were caused by past events, that are likely to lead to the outflow of resources, and whose amount can be reliably estimated. Provisions have uncertain timing and/or amounts.

The amount of the provisions is calculated based on the best estimate of the amount of the expected outflow of resources. If the provisions are expected to be utilized within the normal business cycle, they are classified as short-term. Long-term provisions with a term of more than one year are discounted on the reporting date using the corresponding interest rates.

Warranties

Provisions for warranty obligations are established for the expected warranty obligations from the sale of products and services. The provisions are based on the best estimates with regard to the fulfillment of the obligations, taking account of actual values for claims from the past. They also include provisions for claims already raised by customers.

Restructuring measures

An accrued liability for restructuring measures is reported as soon as the Group has approved a detailed and formal restructuring plan and the restructuring measures have either started or have been communicated to the affected parties. Future operating losses are not taken into account.

Contractual provisions

Contractual provisions are recognized for existing contracts based on the imminent obligation excess of unavoidable costs over proceeds. The provision is valued at the present value of the expected excess obligation from the continuation of the contract. Before a provision is established for an onerous contract, the Group recognizes an impairment on the assets associated with this contract.

Sundry other provisions

Sundry other provisions are valued at the amount necessary to meet the requirements of current commitments on the reporting date.

Provisions for taxes

The Group reports all risks and obligations arising from tax matters under tax liabilities.

D.11. Financial instruments

In accordance with IAS 32.11, all contracts that give rise to a financial asset of one entity and a financial liability or equity instrument of another entity are considered financial instruments. Financial instruments measured at amortized cost (AC) are initially recognized at fair value on the trading day, taking into account attributable transaction costs. Transaction costs must be recognized immediately in the income statement for financial instruments measured at fair value through profit or loss (FVTPL). Furthermore, (current) trade accounts receivable are recognized on initial recognition not at fair value but at the transaction price.

Classification of financial instruments:

Financial assets from debt instruments

Financial assets are classified in the following measurement categories: “at amortized cost,” “at fair value through other comprehensive income,” and “at fair value through profit and loss.” A classification into the three categories takes place based on the Group’s business model for managing the financial assets as well as the characteristics of the contractual payment flows of the assessed financial assets.

The “at amortized cost” category contains all financial assets whose business model is associated with the aim of collecting the contractually agreed payment flows (business model: “hold”). Likewise, the contractual terms and conditions of the financial asset must be such that cash flows occur at fixed dates that exclusively represent repayments and interest payments on the outstanding notional amount (SPPI criterion “cash flow condition”).

Measurement at fair value through other comprehensive income is to be applied to financial assets with the aim of realizing cash flows both through the receipt of contractual payments and through sale (”holding and selling” business model). At the same time, the contractual conditions of the financial asset must also be structured so that payment flows, which exclusively represent principal and interest payments on the outstanding nominal amount, are generated on defined dates (SPPI criterion: cash flow condition).

Financial assets measured at fair value through profit or loss are those that are either held for trading or managed on the basis of their fair value or whose cash flows are maximized through sales. If financial instruments are classified as at fair value through profit or loss, transaction costs are reported through profit or loss directly in the period in which they arise. This relates to a residual category which contains all financial assets that cannot be assigned to the “hold” or “hold and sell” business model (business model: “trade/other”) as well as assets for which the SPPI criterion does not result in a positive decision. Financial assets for which the “fair value option” is exercised for the initial recognition are also classified as “at fair value through profit and loss.”

Financial assets in the “at amortized cost” category particularly include trade accounts receivable (not including factoring), cash and cash equivalents and other receivables.

Cash equivalents are short-term, extremely liquid financial investments that can be converted to cash at any time and that are only subject to insignificant risks of changes in value.

Financial assets in the category “at fair value through other comprehensive income” exist in the Group in the form of trade accounts receivable for which factoring with derecognition is applied.

Financial assets in the category “at fair value through profit or loss” take the form of freestanding derivatives, equity investments and debt investments such as bonds and debt instruments. There are no financial assets that fall under the “fair value option.”

Reclassifications between the measurement categories did not occur in 2024.

Financial liabilities

Financial liabilities are classified in the “at amortized cost” category. The Knorr-Bremse Group only recognizes financial liabilities from derivatives with negative fair values and variable purchase price liabilities at fair value. If the fair value option is exercised for the initial recognition, they are classified as "at fair value through profit and loss." There are no financial liabilities which fall under "fair value option."

Financial liabilities in the category "at amortized cost" are mainly bonds issued, liabilities to banks, trade accounts payable and liabilities to minority shareholders.

Financial liabilities in the category "at fair value through profit or loss" in the Group include freestanding derivatives with a negative market value and earn-out liabilities.

Equity instruments

Equity instruments under IFRS 9 are essentially classified at fair value through profit and loss. For the initial recognition of a financial investment in an equity instrument that is held as a long-term strategic investment rather than for trading purposes, IFRS 9 provides for an irrevocable option to report the changes to fair value in other comprehensive income ("FVOCI option"). In this case, the classification takes place in the "at fair value through other comprehensive income" category. In one case, an equity investment was classified as "at fair value through other comprehensive income" at initial recognition. In general, dividends are recognized in the statement of income. Furthermore, the fair value changes recognized in equity are not reclassified to the statement of income upon disposal of the equity instrument.

The fair value corresponds to the prices quoted on an active market, where applicable. If such a market does not exist, the fair value is calculated based on measurement models using current market parameters.

Derecognitions and modifications

Financial assets are derecognized if the contractual rights to payments that arise from the instrument expire or, alternatively, the financial assets are transferred with all material risks and opportunities. Financial liabilities are derecognized if the contractual obligations are settled, canceled, or expire. In the event of adjustments to loan conditions or extensions of terms, the Group validates whether this involves substantial modifications within the meaning of IFRS 9. The assessment as to whether a modification is substantial is made on the basis of qualitative and quantitative criteria; the criteria used by the Group for financial assets correspond to the criteria for financial liabilities. If there is a substantial modification, the existing financial instrument is derecognized and the substantially modified financial instrument is rebooked. If there is a non-substantial modification, the carrying amount of the financial instrument is adjusted through profit or loss.

Derivative financial instruments

Within the Group, financial derivatives must be recognized as financial assets or financial liabilities at fair value, irrespective of the purpose. The fair value of derivatives is calculated by discounting the future payment flows at the market interest rate and using other established actuarial methods, such as option price models. Derivatives are recognized on the trading day. The fair value of unconditional derivatives is zero at initial recognition under market conditions. Options are initially recognized at fair value (equal to the premium paid or received). Counterparty-specific credit risks are taken into account as part of the measurement of financial derivatives.

The Group uses financial derivatives in the form of forward exchange transactions and foreign exchange options, interest rate swaps, cross-currency interest rate swaps, and commodity derivatives to hedge against currency, interest rate, and commodity risks. While currency risks primarily arise due to sales in foreign currencies, interest rate risks are predominantly caused by variable-rate liabilities, while commodity price risks arise as a result of the procurement of metals in the production process.

Impairments

IFRS 9 requires expected losses to be reported for all assets within the scope of the impairment provisions. The loss reported as well as the interest collected are calculated based on the assignment of the instrument to the categories listed below.

According to the general impairment model ("general approach"), the change in value is determined based on the following three levels:

Level 1: All relevant instruments are initially assigned to level 1. The present value of the expected losses from possible default events within the next twelve months ("12-month expected credit loss") after the reporting date must be reported and recognized as an expense. Interest is recognized on the basis of the gross carrying amount. Consequently, the effective interest method is applied on the basis of the carrying amount before risk provisioning is taken into account.

Level 2: This includes all instruments which have undergone a significant increase in the default risk since their initial reporting. The monitoring for a significant increase in the default risk as of the reporting date is carried out in connection with a screening process of the relative changes in ratings or credit default swap spreads (CDS spreads) of the business partner. Generally, a significant increase in the default risk is assumed in the event that the financial instruments are more than 30 days overdue.

If the business partner for the financial instruments has at least an investment-grade rating, no assessment of a significant increase in the credit risk is made. The impairment corresponds to the present value of the expected losses from possible default events over the remaining term of the instrument ("lifetime expected credit loss"). The interest is reported in the same way as for level 1.

Level 3: If, in addition to an increased risk of default, there is objective evidence of an impairment of an instrument, the impairment is also measured based on the present value of the expected losses from possible default events over the remaining term. The reporting of the interest in the following periods must be adjusted so that the interest income is calculated based on the net carrying amount and therefore based on the carrying amount after taking account of the loan loss provision.

At each balance sheet date, the Group tests whether there is objective evidence of impairment for financial instruments carried "at amortized cost" or "at fair value through other comprehensive income." Criteria for impairment include default or default of debtors, indications of imminent insolvency or the disappearance of an active market for a security due to financial difficulties.

A default event exists when it is considered probable that a debtor cannot or will not be able to meet its payment obligations or meet them in full. Where a default event exists, the gross carrying amounts of the financial assets (fully or partially) are derecognized so that the gross carrying amount after derecognition represents the expected recoverable amount. In addition, a default event is assumed in the event of significant payment delays. For financial instruments within the scope of the "general approach," a default event is assumed in connection with an amount overdue by more than 90 days.

For the Group, cash and cash equivalents in particular are subject to the impairment requirements under the general approach.

For trade accounts receivable and lease receivables, IFRS 9 provides for a simplified approach to impairment ("simplified approach") under which an impairment in the amount of the expected losses must be reported over the remaining term for all instruments, irrespective of the credit quality. Consequently, no distinction is made for these financial instruments between allocations to level 1 or level 2 of the impairment model under IFRS 9. A transfer to level 3 takes place if there is objective evidence of impairment. With respect to trade accounts receivable, a default event is assumed in the case that there are delays in payment in excess of 12 months. A default also exists if it is considered probable that a debtor cannot meet or cannot entirely meet its payment obligations.

IFRS 9.5.5.4 requires in particular also the use of forward-looking information in determining expected credit losses. The company meets this requirement for the determination of impairment by using CDS spreads.

Trade accounts receivable and lease receivables of business partners are divided into four groups:

Group 1:	debtor-specific CDS spread can be determined
Group 2:	rating-equivalent benchmark CDS spread can be determined
Group 3:	the probability of default can be determined via a credit agency
Group 4:	the probability of default is determined on the basis of the average CDS spreads in the appropriate sectors: rail, truck and banks.

Rating and default probability data are updated quarterly.

Lease receivables that would fall under the impairment provisions did not exist for the company.

Hedge accounting

Derivatives are measured at fair value. If a derivative is (or components of a derivative are) included in hedge accounting as a cash flow hedging instrument, the effective changes are recognized in other comprehensive income and cumulatively included in the hedging transactions reserve. Within the Group, non-designated portions of hedging instruments – the forward components – are treated as hedging costs. They are transferred to the reserve for the costs of hedging without effect on profit or loss.

If a hedged forecast transaction later leads to the recognition of a non-financial item, such as inventories, the cumulative amount from the reserve for hedging transactions and the reserve for costs of hedging is included directly in the cost of the non-financial item when this is recognized.

In the case of all other hedged forecast transactions, the cumulative amount that is transferred to the hedging transaction reserve and the reserve for the costs of hedging is reclassified to profit or loss in the period or periods in which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for the recognition of hedging relationships or the hedging instrument is sold, expires, is terminated, or is exercised, the hedge accounting is discontinued prospectively.

If the occurrence of the hedged transaction can no longer be expected, the hedging transaction reserve and the reserve for costs of hedging are directly released to the income statement and thus recognized in profit and loss. If the occurrence of the hedged transaction continues to be expected but is no longer highly probable, the amount accumulated in the hedging transaction reserve is reclassified depending on the occurrence of the expected cash flows.

D.12. Fair value – financial instruments (financial assets)

Measurement of fair value: In the Knorr-Bremse Group, financial instruments classified as “at fair value through profit or loss” (in particular, equities, bonds, and free-standing derivatives) and “at fair value through other comprehensive income” (equity instruments) are measured at fair value. In addition, the fair value of financial instruments that are not measured at fair value is disclosed in the notes to the consolidated financial statements.

The fair value is the price that would be received in an orderly transaction between market participants on the assessment date for the sale of an asset or that would be paid for the transfer of a liability. When measuring the fair value, it is assumed that the transaction is concluded on the principal market for the asset or liability, or on the most favorable market for the asset or liability, if no principal market is available.

The Group must have access to the principal market or to the most favorable market. The fair value of an asset or liability is measured based on the assumptions that the market participants would use as a basis for the pricing in their best commercial interest.

The Group uses measurement techniques that are appropriate under the circumstances and for which adequate data to measure the fair value is available. In this respect, the use of material input factors which can be observed must be as high as possible, while the use of input factors that cannot be observed must be kept to a minimum.

All financial assets and liabilities measured at fair value or whose fair value is disclosed in the notes are classified in the fair value hierarchies described below based on the input parameter of the lowest level, which is material for the overall measurement at fair value.

Level 1:	(Unadjusted) prices listed in active markets
Level 2:	Assessment methods in which key market parameters for assessment can be observed directly or indirectly
Level 3:	Assessment methods in which significant parameters for valuation are not observable on the market

The assessment procedures and the input parameters used are reviewed regularly. The aim of the reviews is to use observable input factors in determining fair value as far as possible. Rearrangements in the hierarchy level are made at the end of the period in which the change occurred.

D.13. Fair value – non-financial assets

The carrying amounts of the Group’s non-financial assets are reviewed on every reporting date in order to determine whether there is any indication of an impairment. If this is the case, the recoverable amount of the asset is estimated. Goodwill is reviewed annually for impairment.

To check whether impairment exists, assets are combined into the smallest group of assets that generate cash inflows from continued use that are largely independent of the cash inflows from other assets or cash-generating units (CGUs). Goodwill that was acquired as part of a business combination is assigned to one or more groups of CGUs from which a benefit from the use of the synergies of the business combination is expected.

The recoverable amount of an asset or a CGU is the higher of the value in use and the fair value less costs to sell. When assessing the value in use, the estimated future cash flows are discounted to their present value, whereby a weighted average cost of capital (WACC) before tax is used which reflects the current market valuations of the interest effect and the specific risks of an asset or a CGU. The fair value is the price that would be received in an orderly transaction between market participants on the assessment date for the sale of an asset or that would be paid for the transfer of the liability. The fair value of non-financial assets is determined in an equivalent manner to the fair value of financial assets (Chapter D.12).

An impairment loss is reported if the carrying amount of an asset or a CGU exceeds its recoverable amount.

Impairment losses are recognized as expenditure.

An impairment loss with regard to the goodwill would not be reversed. For other assets, an impairment loss is only reversed to the extent that the market value of the asset does not exceed the carrying amount that would have been calculated, less the depreciation or amortization, if no impairment loss had been reported.

E. Notes to the Consolidated Statement of Income

E.1. Revenues

Classification of revenues

Table → 3.18 presents a breakdown, by region and the type of time recording, of consolidated revenue that is generally within the scope of IFRS 15. Revenue in the fiscal year includes income from foreign currency hedging in the amount of € 9 million (2023: € 5 million). Of this, € 4 million (2023: € 1 million) is attributable to the Rail Vehicle Systems division and € 5 million (2023: € 4 million) to the Commercial Vehicle Systems division.

3.18 CLASSIFICATION OF REVENUES

	Revenue according to segment reporting			
in € million	Rail Vehicle Systems	Commercial Vehicle Systems	Other segments and consolidation	Total
				2024 fiscal year
Disaggregation of segments				
a) Region (by registered office of the Group company)				
Europe/Africa	2,182	1,572	(3)	3,751
North America	521	1,466	(0)	1,987
South America	38	138	0	176
Asia-Pacific	1,303	666	–	1,969
	4,044	**3,842**	**(3)**	**7,883**
b) Type of time recording				
Recognition at a point in time	3,019	3,795	(3)	6,811
Recognition over time	1,025	47	–	1,072
	4,044	**3,842**	**(3)**	**7,883**
				2023 fiscal year
Disaggregation of segments				
a) Region (by registered office of the Group company)				
Europe/Africa	2,107	1,781	(2)	3,886
North America	410	1,583	(0)	1,993
South America	38	111	(0)	149
Asia-Pacific	1,193	705	(0)	1,898
	3,748	**4,180**	**(2)**	**7,926**
b) Type of time recording				
Recognition at a point in time	2,700	4,140	(2)	6,838
Recognition over time	1,048	40	–	1,088
	3,748	**4,180**	**(2)**	**7,926**

Transaction price allocated to the remaining performance obligations

The transaction price allocated to the remaining performance obligations amounts to € 2,877 million as of December 31, 2024 (2023: € 2,541 million). This relates to the project business for the Rail Vehicle Systems segment and includes only customer contracts with an original contractual term of over one year. The projects have an average term of 5 years. As of December 31, 2024, contracts from project business will last through the year 2063.

Information on contract balances in connection with IFRS 15

CONTRACT ASSETS AND CONTRACT LIABILITIES

The contract assets and contract liabilities primarily relate to the presentation of project business in the Rail Vehicle -Systems segment according to the method of revenue recognition over a period of time.

According to this method, contract assets result from services performed, insofar as these are not settled through invoices. Advance payments from customers have a counter effect. Depending on the relationship between the percentage of completion in the specific project, invoices and advance payments, therefore, there may be either contract assets or contract liabilities.

For contracts with revenue not recognized over a period of time, advance payments are also recognized as contract liabilities if the relevant performance obligations have not yet been fulfilled. In addition, compensation payments for development costs before series production are recognized as contract liabilities. As in the previous year, the latter only refers to the Commercial Vehicle Systems segment as of December 31, 2024.

For contracts with revenue recognized over a period of time, advance payments are accounted for as contract liabilities and recognized as revenues over the contract term.

Table → 3.19 shows the effects in the reconciliation of contract assets and liabilities between January 1, 2024 and December 31, 2024.

3.19 RECONCILIATION OF CONTRACT ASSETS AND LIABILITIES

in € million	Contract assets	Contract liabilities
		2024 fiscal year
As of Jan. 1, 2024	**77**	**233**
Increase in contract liabilities from invoices and effects from changes in advance payments	–	172
Transfer of the opening balance for contract assets to trade accounts receivable through invoices	(59)	–
Change as a result of the recognition of revenue	63	(107)
Change of impairment on contract assets	0	–
Additions resulting from business acquisitions	73	37
Other	6	8
Closing balance as of Dec. 31, 2024	**160**	**343**
		2023 fiscal year
As of Jan. 1, 2023	**69**	**231**
Increase in contract liabilities from invoices and effects from changes in advance payments	–	128
Transfer of the opening balance for contract assets to trade accounts receivable through invoices	(50)	–
Change as a result of the recognition of revenue	59	(118)
Change of impairment on contract assets	(0)	–
Reclassifications pursuant to IFRS 5	–	(1)
Other	(1)	(7)
Closing balance as of Dec. 31, 2023	**77**	**233**

Revenue of the reporting period that was included in the opening balance of contract liabilities as of January 1, 2024, amounted to € 107 million (2023: € 118 million).

OTHER ASSETS

Other non-current assets include so-called nomination fees from the Commercial Vehicle Systems and Rail Vehicle Systems segments of € 32 million (2023: € 35 million). The capitalized amounts will be depreciated against revenue from the start of series production and over the term of series production. In 2024, the depreciation recognized on these assets amounted to € 4 million (2023: € 4 million).

The other non-current assets also include costs to fulfill a contract of € 61 million (2023: € 45 million). These relate to engineering costs in the Commercial Vehicle Systems segment before series production. These will be depreciated against changes in inventory as from the start of series production and over the term of series production. In 2024, the depreciation recognized on these assets amounted to € 6 million (2023: € 6 million).

E.2. Change in inventory and own work capitalized

The change in inventory reflects the change in finished and unfinished products and the contract performance costs and contract initiation costs written down against the change in inventory Table → 3.20. The development of finished and unfinished products is covered in Chapter F.6. Inventories.

3.20 CHANGE IN INVENTORY AND OWN WORK CAPITALIZED

in € million	2024	2023
Change in inventory of finished and unfinished products	44	(10)
Own work capitalized	113	113

Own work capitalized results from the capitalization of development projects.

E.3. Other operating income

Table → 3.21

3.21 OTHER OPERATING INCOME

in € million	2024	2023
Currency translation gains	42	50
Insurance compensation and compensation payments	22	10
Income from government grants	11	9
Income from the disposal of fixed assets	6	5
Other income	37	31
	118	**105**

Other operating income was up year over year, largely due to higher income from insurance compensation.

E.4. Cost of materials

Table → 3.22

3.22 COST OF MATERIALS

in € million	2024	2023
Expenses for raw materials, consumables and supplies and for purchased goods	(3,444)	(3,670)
Expenses for purchased services	(359)	(343)
	(3,803)	**(4,013)**

The cost of materials is comprised of the expenditure on raw materials, consumables, supplies, and purchased goods as well as on purchased services. In particular significantly lower expenses in the Commercial Vehicle Systems division resulted in a year-over-year decline in the cost of materials in the 2024 fiscal year.

In the reporting period, inventories in the amount of € 3,444 million (2023:€ 3,670 million) were recognized as expenses. This included increases in write-downs on inventories amounting to € 32 million (2023: reduction amounting to € 5 million).

E.5. Personnel expenses

Table → 3.23

3.23 PERSONNEL EXPENSES

in € million	2024	2023
Wages and salaries	(1,641)	(1,567)
Social security contributions	(317)	(305)
Expenses for personnel leasing	(76)	(83)
Other personnel expenses	(21)	(15)
	(2,055)	**(1,970)**

The personnel expenses primarily include wages and salaries, as well as social security contributions.

The increase in wages and salaries by 4.8% in 2024 (2023: increase of 11.4%) was mainly due to the inflation-based wage and salary adjustments.

For fiscal 2024, the amounts recognized as an expense for defined-contribution plans totaled € 78 million (2023: € 69 million) and also include the contributions for statutory pension insurance.

E.6. Other operating expenses

Table → 3.24

3.24 OTHER OPERATING EXPENSES

in € million	2024	2023
Order-related expenses	(146)	(139)
Legal, consulting and audit costs	(155)	(97)
Maintenance expenses	(129)	(130)
Personnel expenses	(120)	(116)
Other services	(102)	(102)
External research and development costs	(73)	(62)
Other expenses	(272)	(284)
	(997)	**(930)**

Other operating expenses increased in 2024 by 7.2%, from € 930 million to € 997 million. The increase is primarily due to higher legal, consulting and audit costs and higher order-related expenses that are not attributable to the cost of materials.

Other services include services such as logistics, security and building services and cleaning.

Other expenses mainly comprise energy, insurance and utility costs, license and patent fees and currency translation losses.

E.7. Depreciation, amortization, and impairment

Depreciation, amortization and impairment is comprised as follows: Table → 3.25.

3.25 DEPRECIATION, AMORTIZATION AND IMPAIRMENT

in € million	2024	2023
Amortization and impairments of intangible assets	**(120)**	**(100)**
Thereof amortization of intangible assets	(100)	(90)
thereof impairments of intangible assets	(21)	(10)
Depreciation and impairments of property, plant, and equipment	**(271)**	**(251)**
thereof depreciation of property, plant, and equipment	(260)	(242)
thereof impairments of property, plant and equipment	(12)	(9)
	(392)	**(351)**

The Group's depreciation, amortization and impairments increased by € 41 million in 2024 to € 392 million.

Amortization of intangible assets rose to € 100 million (2023: € 90 million).

Impairment losses on intangible assets mainly resulted from discontinued development projects in the Rail Vehicle Systems division in the amount of € 18 million (2023: € 4 million) and in the Commercial Vehicle Systems division of € 0 million (2023: € 6 million).

Depreciation of property, plant and equipment includes depreciation of leased assets of € 72 million (2023: € 68 million).

Impairment losses on property, plant and equipment in the fiscal year particularly relate to the impairment losses on non-current assets of GT Emissions Systems.

E.8. Financial result

3.26 FINANCIAL RESULT

in € million	2024	2023
Interest income from financial instruments, thereof	50	21
a) Financial instruments (AC)	49	20
b) Financial instruments (FVTPL)	1	1
c) Financial instruments (FVOCI)	0	–
Interest income from defined benefit plans	9	10
Other	1	1
Interest income	**60**	**32**
Interest expenses from financial instruments, thereof	(64)	(56)
a) Financial instruments (AC)	(62)	(53)
b) Financial instruments (FVTPL)	(2)	(3)
c) Financial instruments (FVOCI)	(0)	(0)
Lease interest expenses	(20)	(18)
Interest expenses from defined benefit plans	(17)	(18)
Compounding of provisions	(3)	(1)
Other	(3)	(8)
Interest expenses	**(107)**	**(101)**
Share of profits and losses of companies accounted for using the equity method, after taxes	**(16)**	**(20)**
Impairment of other financial assets	**(65)**	**(0)**
Currency translation differences, thereof	0	29
a) Financial instruments (AC)	–	29
b) Financial instruments (FVOCI)	–	0
c) Financial instruments (FVTPL)	0	–
Income from disposals of financial instruments	2	–
Income from the revaluation of financial instruments (FVTPL)	5	10
Other	0	0
Other financial income	**7**	**39**
Currency translation differences, thereof	(51)	(13)
a) Financial instruments (AC)	(51)	–
b) Financial instruments (FVOCI)	(0)	–
c) Financial instruments (FVTPL)	–	(13)
Expenses from the deconsolidation of subsidiaries and related effects	(68)	(19)
Expenses from the revaluation of financial instruments (FVTPL)	(1)	(4)
Other	(25)	(11)
Other financial expenses	**(145)**	**(47)**
Other financial result from other financial income and other financial expenses	**(138)**	**(8)**
Financial result	**(266)**	**(97)**

The very significant rise of € 28 million in interest income to € 60 million is due in particular to increased investments on the short-term money market.

Interest expenses increased moderately to € 107 million (2023: € 101 million), mainly because of the interest accrued for the new bond issued in September 2024.

Foreign currency gains or losses on financial Instruments carried at amortized cost (AC) mainly result from the currency translation differences of cash and cash equivalents at the closing rate; these foreign currency gains or losses are netted. The currency gains or losses on financial instruments recognized at fair value through profit or loss (FVTPL) result from the realized gains or losses on currency derivatives and the measurement effects from existing currency derivatives and changes in the fair value of the financial instruments included in the special fund.

In 2024, the share of profit and loss of companies accounted for using the equity method arose mainly from the share of profit or loss of Nexxiot AG, based in Zürich, Switzerland.

The impairment of other financial assets is primarily attributable to the fair value adjustments for the carrying amount of the remaining purchase price receivable in connection with the sale of Kiepe Group (see chapter C.2).

Please refer to Chapter C.3 for the material expenses arising from the deconsolidation of subsidiaries.

Interest income and expense from financial instruments (AC) carried at amortized cost represent the total interest expense and income of these assets and liabilities determined using the effective interest method.

The items reported under other financial result particularly include expenses from changes in the measurement of put options and dividend liabilities.

For further information on interest income and interest expenses from defined-benefit plans, please refer to chapter F.11.

E.9. Taxes on income

E.9.1. Taxes reported in profit and loss

Table → 3.27

3.27 TAXES REPORTED IN PROFIT AND LOSS

in € million	2024	2023
Current year	(233)	(197)
Previous years	10	11
Current tax expense	**(223)**	**(186)**
Recognition/reversal of temporary differences	28	(33)
Temporary differences from previous years	17	11
Tax losses/credits	10	11
Deferred tax expense/income	**55**	**(11)**
Tax expenses	**(168)**	**(197)**

The tax expenses include current and deferred taxes. Current and deferred taxes are reported in profit and loss, except for the extent to which they are associated with a business combination or with items reported directly in equity or in the other comprehensive income.

Tax losses/credits of € 17 million (2023: € 15 million) related to the current year and € -7 million (2023: € -4 million) to the previous year.

The change in deferred taxes was primarily due to the increase in deductible temporary differences in the current year.

E.9.2. Taxes reported in other comprehensive income

The breakdown of taxes reported in other comprehensive income is presented in Table → 3.28.

3.28 TAXES REPORTED IN OTHER COMPREHENSIVE INCOME

in € million	Before tax	Deferred tax assets (-)/ liabilities (+)	After tax
			Dec. 31, 2024
Revaluation of net debt from defined benefit plans	45	(14)	31
Currency translation differences	104	–	104
Hedge Accounting	14	(4)	10
Total	**163**	**(18)**	**145**
			Dec. 31, 2023
Revaluation of net debt from defined benefit plans	37	(13)	24
Currency translation differences	156	–	156
Hedge Accounting	(15)	5	(10)
Total	**178**	**(8)**	**169**

E.9.3. Reconciliation of the effective tax rate

The difference between the effective and expected tax expenses in both fiscal years resulted mainly from lower local tax rates compared to the hypothetical tax rate at group level.

Material negative effects on the tax rate resulted from non-deductible operating expenses due to deconsolidation.

The impairment of deferred tax assets on loss and interest carryforwards in 2024 totaled € 16 million, of which € 7 million was attributable to the "Change/write-off of deferred tax assets on loss and interest carryforwards" item and € 9 million to "Tax from previous years."

The "Change/write-off of deferred tax assets on loss and interest carryforwards" and "Tax from previous years" items additionally include impairment reversals on deferred tax assets of € -21 million Table → 3.29

3.29 RECONCILIATION OF THE EFFECTIVE TAX RATE

	Dec. 31, 2024		Dec. 31, 2023	
	%	€ million	%	€ million
Earnings before taxes		645		773
Expected taxes	30.8	199	30.8	238
Differences between the local and hypothetical tax rate at the top level	(10.5)	(68)	(8.7)	(67)
Changes to the tax rate	(0.5)	(3)	0.6	4
Effects from permanent differences due to different accounting under the IFRS and tax return	0.5	3	1.4	11
Increase in tax due to non-tax deductible expenses	7.2	46	3.6	27
Tax-exempt income	(1.4)	(9)	(0.8)	(6)
Change/write-off of deferred tax assets on loss and interest carryforwards	(2.6)	(17)	0.5	4
Change/adjustment of unrecognized deductible temporary differences	(0.1)	(0)	(0.2)	(2)
Tax from previous year	(2.2)	(14)	(2.4)	(18)
Other	4.8	31	0.7	6
Effective taxes	**26.0**	**168**	**25.4**	**197**

E.9.4. Change in deferred taxes

Unlike the previous year, the allocation and development of deferred tax items showed an asset surplus that results in particular from the acquired deferred tax assets of KB Signaling. The changes in other comprehensive income related to pension obligations and hedge accounting.

Effects from first-time consolidations and deconsolidations, changes in tax rates and effects from the previous year are reported under "Other."

As of December 31, 2024, deferred tax assets of € 4 million (2023: € 2 million) were recognized for companies in

China and Poland that incurred a loss in the current or prior period. Recognition was based on sufficiently reliable future taxable income, supported by order books and nonrecurring causes.

Deferred taxes on tax loss carryforwards rose by a total of € 83 million, including deferred taxes on acquired tax loss carryforwards in North America of € 68 million. Table → 3.30

3.30 CHANGE IN DEFERRED TAXES IN THE BALANCE SHEET DURING THE YEAR

in € million	Net as of Jan. 1	In profit/loss	In other income	Other	Net currency translation differences	Net	Deferred tax assets	Deferred tax liabilities
							As of Dec. 31	
							2024 fiscal year	
Intangible assets	(170)	(9)	–	38	3	(139)	60	(199)
Property, plant and equipment	(160)	8	–	8	(3)	(147)	14	(161)
Investments	(12)	(12)	4	(0)	(1)	(21)	24	(45)
Inventories	52	12	–	3	1	68	82	(14)
Other assets	(16)	4	2	(1)	0	(12)	25	(37)
Tax loss carryforwards	27	10	–	68	4	110	110	–
Pension obligations	28	(2)	(0)	(0)	0	27	39	(12)
Other provisions	42	1	–	4	2	49	63	(14)
Liabilities	150	43	4	13	3	212	244	(32)
Tax assets (liabilities) before netting	**(60)**	**55**	**10**	**133**	**9**	**147**	**661**	**(514)**
Netting of taxes	–	–	–	–	–	0	(424)	424
Net tax assets (liabilities)	**(60)**	**55**	**10**	**133**	**9**	**147**	**237**	**(90)**
							2023 fiscal year	
Intangible assets	(155)	(18)	–	(0)	3	(170)	15	(185)
Property, plant and equipment	(169)	5	–	1	3	(160)	5	(165)
Investments	2	(10)	(4)	0	(0)	(12)	23	(35)
Inventories	46	3	–	4	(1)	51	55	(4)
Other assets	(7)	(7)	(2)	0	(0)	(16)	11	(27)
Tax loss carryforwards	18	10	–	(0)	(1)	27	27	–
Pension obligations	25	(5)	8	–	(0)	28	35	(7)
Other provisions	43	1	–	0	(2)	42	48	(6)
Liabilities	153	10	(10)	(1)	(2)	150	174	(24)
Tax assets (liabilities) before netting	**(44)**	**(11)**	**(8)**	**3**	**0**	**(60)**	**393**	**(453)**
Netting of taxes	–	–	–	–	–	–	(320)	320
Net tax assets (liabilities)	**(44)**	**(11)**	**(8)**	**3**	**0**	**(60)**	**73**	**(133)**

E.9.5. Unrecognized deferred tax assets

Deferred tax assets were not reported with regard to the following items, as it is not likely that taxable income, against which the Company can settle deferred tax assets, will be available in the future.

The tax loss and interest carryforwards comprised local loss carryforwards of € 135 million on account of the acquisition of KB Signaling, which led to unrecognized deferred tax assets of € 3 million. In addition, they included a tax loss carryforward of € 134 million from the loss on the disposal of R.H. Sheppard, which resulted in unrecognized deferred tax assets of € 31 million. Deferred tax assets were not recognized as it is not probable that future taxable profit will be available against which the deferred tax assets can be utilized before the loss carryforwards expire. Table → 3.31

3.31 UNRECOGNIZED DEFERRED TAX ASSETS

	Dec. 31, 2024		Dec. 31, 2023	
in € million	Gross	Tax effect	Gross	Tax effect
from deductible temporary differences	17	2	29	4
from tax loss and interest carryforwards	344	53	149	41
	361	**55**	**178**	**46**

The non-capitalized tax loss carry-forwards expire as shown in Table → 3.32.

3.32 NON-CAPITALIZED TAX LOSS CARRYFORWARDS

	Dec. 31, 2024		Dec. 31, 2023	
in € million		Expiration date		Expiration date
Expirable	306	1–10 years	101	1–10 years
Non-expirable	38		32	
	344		**133**	

E.9.6. Additional disclosures

As of December 31, 2024, the Group's parent company recorded deferred tax liabilities of € 11 million (2023: € 6 million) for temporary differences on future dividend payments (outside basis differences). No other deferred tax liabilities for temporary differences (outside basis differences) in the amount of € 586 million (2023: € 495 million) in connection with investments in subsidiaries, associated companies or jointly controlled companies were reported as of the reporting date.

The Group is of the opinion that the income tax liabilities formed are adequate for the years where the tax audit is not closed in consideration of all available information, including the interpretation of tax law and previous experience.

GLOBAL MINIMUM TAX

A range of agreements have been made at a global level to address concerns about the uneven distribution of profits and unequal amount of taxes paid by large multinationals. They include an agreement by more than 135 countries to introduce a global, minimum rate of tax of 15% (OECD BEPS Pillar 2).

In December 2022 the Council of the European Union issued a directive on a global minimum level of taxation, which had to be transposed into local legal and administrative regulations by the individual member states by December 31, 2023. As of the reporting date, the new regulations had already been transposed into German law (Minimum Tax Act – MinStG) and entered into force. The Group falls within the scope of these regulations from January 1, 2024.

The Group applies the temporary, mandatory exemption with regard to the recognition of deferred taxes resulting from the introduction of the global minimum level of taxation and then recognizes these taxes as actual tax expense/income when they arise.

In the 2024 fiscal year, Knorr-Bremse implemented a Pillar 2 reporting process that facilitates the calculation of a provision for top-up tax at Group level. At the reporting date, there was an effect of € 1 million from the payment of Pillar 2 top-up tax for Hungary. This gave rise to an insignificant increase of 0.2 percentage points in the Group's effective tax rate.

The Heinz Hermann Thiele Trust is the ultimate parent company. In its group of companies, Stella Vermögensverwaltungs GmbH, Oberhaching, as the ultimate parent company, is required to prepare consolidated financial statements. This means that it is the taxable entity for global minimum taxation for the entire Group. Knorr-Bremse is the entity liable to Stella for the KnorrBremse Group compensation obligation and the entity liable to the tax authorities. As a rule, the Pillar 2 calculation has to be made at the level of Stella, taking account of its other affiliated companies and its own consolidated earnings.

Stella performed a simulation based on its preliminary consolidated earnings for the 2023 fiscal year. On this basis, Knorr-Bremse assumes that applying the results of this analysis to the figures for the 2024 fiscal year would not significantly change the results of Knorr-Bremse.

Knorr-Bremse is closely monitoring further developments in every country in which Knorr-Bremse operates.

E.10. Earnings per share

Undiluted earnings per share are calculated in accordance with IAS 33 from the earnings attributable to Knorr-Bremse AG shareholders and the weighted average number of shares outstanding during the year. Table → 3.33

3.33 EARNINGS PER SHARE

	2024	2023
Profit (loss) attributable to the shareholders of Knorr-Bremse AG (in € million)	445	553
Weighted average of shares outstanding (in million pieces)	161.2	161.2
Earnings per share in EUR (undiluted)	2.76	3.43
Earnings per share in EUR (diluted)	2.76	3.43

As in the previous year, diluted earnings per share correspond to undiluted earnings per share.

F. Notes to the Consolidated Balance Sheet

F.1. Intangible assets

Table → 3.34

3.34 INTANGIBLE ASSETS

in € million	Goodwill	Software, licenses and acquired rights	Brands and customer relation-ships	Internally generated intangible assets	Advance payments made on intangible assets and assets under con-struction	Other assets	Total
Acquisition and production cost							
As of Jan. 1, 2023	**699**	**616**	**223**	**442**	**15**	**20**	**2,015**
Currency translation differences	(2)	(8)	(7)	(5)	0	1	(21)
Additions	-	10	-	108	0	0	118
Disposals	-	(5)	-	(0)	-	(0)	(5)
Acquisitions from business combinations	(1)	(0)	1	-	-	-	0
Reclassifications pursuant to IFRS 5	-	(3)	-	(8)	-	(0)	(11)
Reclassifications	-	10	-	(5)	(5)	0	-
As of Dec. 31, 2023	**696**	**620**	**217**	**532**	**10**	**21**	**2,096**
As of Jan. 1, 2024	**696**	**620**	**217**	**532**	**10**	**21**	**2,096**
Currency translation differences	(5)	13	6	8	(0)	1	23
Additions	-	6	0	110	0	0	116
Disposals	-	(5)	-	-	(0)	(0)	(5)
Acquisitions from business combinations	196	64	90	0	-	-	350
Disposal from the scope of consolidation	(3)	(1)	(9)	(1)	(0)	(4)	(19)
Reclassifications pursuant to IFRS 5	(1)	(0)	(12)	-	-	(7)	(20)
Reclassifications	-	18	-	(9)	(9)	0	-
As of Dec. 31, 2024	**883**	**716**	**292**	**641**	**0**	**9**	**2,542**
Accumulated depreciation, amortization and impairment expenses							
As of Jan. 1, 2023	**-**	**(375)**	**(72)**	**(79)**	**(9)**	**(13)**	**(548)**
Currency translation differences	-	7	1	1	(0)	(1)	8
Additions	-	(45)	(15)	(26)	-	(4)	(90)
Disposals	-	5	-	-	-	0	5
Impairments	-	(0)	-	(10)	-	-	(10)
Reclassifications pursuant to IFRS 5	-	2	-	4	-	0	6
As of Dec. 31, 2023	**-**	**(406)**	**(86)**	**(110)**	**(9)**	**(17)**	**(629)**
As of Jan. 1, 2024	**-**	**(406)**	**(86)**	**(110)**	**(9)**	**(17)**	**(629)**
Currency translation differences	-	(10)	(1)	(1)	0	(1)	(12)
Additions	-	(47)	(18)	(33)	-	(1)	(100)
Disposals	-	5	(0)	0	-	0	5
Impairments	(1)	(0)	-	(19)	-	(1)	(21)
Disposal from the scope of consolidation	-	1	6	0	-	5	12
Reclassifications pursuant to IFRS 5	1	0	12	-	-	7	20
Reclassifications	-	(9)	-	0	9	-	-
As of Dec. 31, 2024	**-**	**(467)**	**(87)**	**(162)**	**-**	**(9)**	**(725)**
Carrying amount as of Dec. 31, 2023	**696**	**214**	**131**	**422**	**1**	**3**	**1,467**
Carrying amount as of Dec. 31, 2024	**883**	**249**	**205**	**478**	**0**	**1**	**1,817**

Please refer to Chapters F.2. and C.3. for changes in goodwill.

The increase in intangible assets was mainly due to the initial consolidation of KB Signaling.

The internally generated intangible assets item relates to the finished and unfinished capitalized costs of the Group's development activities. Development costs are capitalized if the requirements defined in IAS 38 are met. These are subject to straight-line depreciation over the respective useful life. Additions in the fiscal year amounted to € 110 million (2023: € 108 million). Of this, € 30 million (2023: € 27 million) is attributable to the Rail Vehicle Systems division and € 60 million (2023: € 76 million) to the Commercial Vehicle Systems division.

Climate change had an overall impact on Knorr-Bremse's business activities and its associated capital expenditure. In particular, Knorr-Bremse invests in technologies for emission reduction and e-mobility in the Commercial Vehicle Systems division. Here, Knorr-Bremse focuses on minimizing CO_2 and particulate emissions in its systems. In the company's research and development activities, climate/sustainability risks are already taken into account in the business planning.

As long as know-how is not ready for use, an impairment test is performed at least as of December 31 of the relevant fiscal year.

Knorr-Bremse does not currently know of any significant changes in the business environment brought about by climate change (including, for example, changes in regulation) that could adversely affect Knorr-Bremse or be evidence of impairment of assets.

The Group uses the total cost method in determining period results. Hence, expenditures assigned to the function research and development which were recognized as expense cannot be directly determined. The research and development costs recognized in the statement of income as expense amounted to € 459 million (2023: € 437 million).

F.2. Goodwill

According to IFRS, goodwill essentially has an unlimited useful life. Goodwill is divided between the Group's cash-generating units (CGU) and the value is assessed annually. The Rail Vehicle Systems and Commercial Vehicle Systems segments are defined as cash-generating units for the purpose of impairment testing. For the purpose of impairment testing, the following goodwill is allocated to the cash-generating units of the Group as follows: Table → 3.35

3.35 GOODWILL

in € million	Dec. 31, 2024	Dec. 31, 2023
Rail Vehicle Systems	409	221
Commercial Vehicle Systems	474	475
	883	**696**

Goodwill allocated to the Rail Vehicle Systems division increased by € 188 million year over year to € 409 million. This increase was mainly due to the initial consolidation of KB Signaling.

The determination of the recoverable amount for the respective cash-generating unit is based in each case on the value in use, which was estimated by discounted future cash flows of the cash-generating unit.

The cash flow forecasts contain specific estimates for the Rail Vehicle Systems division for two years and a subsequent rough planning period of three years, and specific estimates for the Commercial Vehicle Systems division for one year, a subsequent rough planning period of four years, and a sustainable growth rate for the period thereafter. The terminal value is based on a steady state.

As part of the estimation of the cash flows for the planning period, Knorr-Bremse also examined the possible effects of climate risks.

Key figures for the sales budget in the Rail Vehicle Systems division include global passenger numbers and the transport volume of freight trains. The figures published on this by renowned market research institutions (e.g., SCI) do not provide any indications of future decreases in passenger numbers or lower expected transport volumes. Climate change tends to have a slightly positive impact on the aforementioned figures here because rail transport in the form of electric locomotives is perceived as climate friendly. Moreover, the braking, entrance and HVAC systems Knorr-Bremse produces can be installed in any rail vehicle, regardless of the type of drive.

The respective regions' truck production rate in particular plays a significant role for the sales budget in the Commercial Vehicle Systems division. A transition toward e-mobility and autonomous driving is taking place in commercial vehicles. This transition does not have any material impact on Knorr-Bremse's (unit) sales figures because commercial vehicles need the main product sold – air brake systems – regardless of the type of drive. The company also develops commercial vehicle parts especially for new e-vehicles (e.g., screw-type compressors for electric buses).

In particular, Knorr-Bremse invests in emission reduction and e-mobility in the Commercial Vehicle Systems division. Here, Knorr-Bremse focuses on minimizing CO_2 and particulate emissions in its systems. This capital expenditure is included in the cash-flow planning.

In summary, we consider that the relevant climate/sustainability effects are not material have been included in our forecast cash flows.

The discount rate used was the historical weighted average cost of capital (WACC) after corporate taxes calculated on the basis of a group of peer companies.

The key assumptions used in estimating the recoverable amount are subject to estimation uncertainty and are set out below:

The rising or falling sales growth rates forecast in the detailed planning stage are based on a consolidation of detailed bottom-up plans of the significant legal entities included in cash-generating units and take into account past order data as well as industry-specific market information from external sources. In the rough planning period, the sales growth rates are determined with a view to the longer-term growth rates obtained from external sources.

The rising or constant EBIT margins forecast in the detailed planning stage take past experience and current data from the respective order backlogs into account. Average EBIT margins extrapolated from the past are used in the rough planning period.

Table → 3.36 shows the discount rates and growth rates used to extrapolate the cash flow forecasts in determining the recoverable amount of the cash-generating units.

3.36 CASH-GENERATING UNITS

In %	Dec. 31, 2024	Dec. 31, 2023
Rail Vehicle Systems		
Discount rate (WACC) before taxes	10.8	11.7
Discount rate (WACC) after taxes	8.6	9.3
Sustainable growth rate	1.0	1.0
Commercial Vehicle Systems		
Discount rate (WACC) before taxes	10.8	13.1
Discount rate (WACC) after taxes	8.5	10.2
Sustainable growth rate	1.0	1.0

The sustainable growth rate was calculated based on the estimate of long-term inflation expectations and is based on the assumptions that a market participant would make.

Knorr-Bremse reviews the carrying amount of goodwill at the end of each fiscal year for impairment.

The impairments tests did not indicate any need for impairment.

F.3. Property, plant and equipment

Table → 3.37

3.37 PROPERTY, PLANT AND EQUIPMENT

in € million	Land, land rights and buildings, including buildings on land owned by others	Technical equipment and machinery	Other equipment, factory and office equipment	Advance payments and plant under construction	Total
Acquisition and production cost					
As of Jan. 1, 2023	**1,174**	**1,279**	**876**	**233**	**3,562**
Currency translation differences	(21)	(23)	(15)	(4)	(63)
Additions	103	51	71	136	361
Disposals	(41)	(69)	(118)	(1)	(229)
Acquisitions qualifying as business combinations	1	0	0	-	1
Disposal from the scope of consolidation	(11)	(10)	(6)	(0)	(27)
Reclassifications pursuant to IFRS 5	(4)	(3)	(3)	(0)	(10)
Reclassifications	9	75	42	(126)	(0)
As of Dec. 31, 2023	**1,210**	**1,300**	**847**	**238**	3,595
As of Jan. 1, 2024	**1,210**	**1,300**	**847**	**238**	3,595
Currency translation differences	15	11	7	5	38
Additions	70	44	71	121	306
Disposals	(48)	(29)	(40)	(0)	(117)
Acquisitions qualifying as business combinations	39	10	1	4	54
Disposal from the scope of consolidation	(26)	(38)	(6)	(7)	(77)
Reclassifications pursuant to IFRS 5	(5)	(17)	(2)	(1)	(25)
Reclassifications	7	83	37	(127)	-
As of Dec. 31, 2024	**1,261**	**1,363**	**916**	**234**	**3,774**
Accumulated depreciation, amortization and impairment expenses					
As of Jan. 1, 2023	**(361)**	**(737)**	**(651)**	**(0)**	**(1,749)**
Currency translation differences	7	13	11	0	31
Additions	(72)	(92)	(78)	-	(242)
Disposals	35	56	114	0	205
Impairments	(5)	(2)	(0)	(1)	(8)
Disposal from the scope of consolidation	9	10	5	-	24
Reclassifications pursuant to IFRS 5	2	2	3	1	8
Reclassifications	(0)	-	0	-	-
As of Dec. 31, 2023	**(385)**	**(750)**	**(596)**	**(0)**	**(1,731)**
As of Jan. 1, 2024	**(385)**	**(750)**	**(596)**	**(0)**	**(1,731)**
Currency translation differences	(3)	(4)	(7)	(0)	(14)
Additions	(77)	(96)	(86)	-	(260)
Disposals	31	22	37	0	91
Impairments	(2)	(7)	(1)	(1)	(12)
Disposal from the scope of consolidation	3	19	4	-	26
Reclassifications pursuant to IFRS 5	5	17	2	1	25
Reclassifications	(0)	(0)	(0)	0	-
As of Dec. 31, 2024	**(428)**	**(799)**	**(647)**	**(1)**	**(1,875)**
Carrying amount as of Dec. 31, 2023	**825**	**550**	**251**	**238**	**1,864**
Carrying amount as of Dec. 31, 2024	**834**	**564**	**268**	**233**	**1,899**

Additions to property, plant, and equipment decreased by € 55 million, or 15.2%, in 2024, from € 361 million to € 306 million

Additions to land and buildings related primarily to the newly concluded or renewed leases that are included in additions at € 58 million (2023: € 95 million) in accordance with IFRS 16.

These are mainly leases at the sites in Hungary (€ 14 million), Germany (€ 14 million), Spain (€ 6 million) and China (€ 6 million).

Other right-of-use assets under IFRS 16 were capitalized in an amount of € 15 million (2023: € 12 million) under other equipment, factory and office equipment, among other things.

Capital expenditure on technical equipment and machinery and on other equipment, factory and office equipment in the Rail Vehicle Systems division focused on expansion and replacement investments for high-growth product groups while increasing automation. The Commercial Vehicle Systems division continued to focus its capital expenditure on provision of supplier tools as well as equipment for the production of new generations of products.

The PPE item is subject to annual scheduled depreciation and amortization. Impairment losses on property, plant, and equipment are reported separately (see Chapter E.7.).

As of December 31, 2024, similar to in the prior year, a parcel of land in Berlin was encumbered by a land charge in the amount of € 29 million. As in the previous year, Knorr-Bremse did not make use of the land charge in the fiscal year.

F.4. Other financial assets

Table → 3.38

3.38 OTHER FINANCIAL ASSETS

in € million	Dec. 31, 2024	Dec. 31, 2023
Receivables from bills of exchange	45	21
Equity instruments	31	23
Purchase price receivables	15	33
Derivative financial instruments	5	38
Securities	–	141
Other financial assets	76	46
	172	**302**
Current	89	161
Non-current	83	141

Other financial assets decreased by € 130 million, from € 302 million in the previous year to € 172 million.

The decrease was primarily attributable to the dissolution of the special fund, which reduced the bonds recognized as securities and Pfandbriefe.

In addition, derivatives decreased by € 34 million to € 5 million.

Further disclosures regarding the other financial assets are provided in Chapter F.15.

F.5. Trade accounts receivable and other assets

Table → 3.39

3.39 TRADE ACCOUNTS RECEIVABLE

in € million	Dec. 31, 2024	Dec. 31, 2023
Accounts receivable due from associated and related companies and parties	38	39
Trade accounts receivable	1,347	1,320
Current	1,385	1,359
Non-current	–	–

Trade accounts receivable increased slightly by € 26 million.

Changes in impairments under IFRS 9 can be found in Chapter F.15.2.

The composition of other assets is shown in the table below. Table → 3.40 For further information on other assets, see section E.1.

3.40 OTHER CURRENT AND NON-CURRENT ASSETS

in € million	Dec. 31, 2024	Dec. 31, 2023
Tax receivables	133	130
Costs to fulfill a contract	61	45
Prepaid expenses	60	41
Nomination costs	32	35
Other	22	30
	308	**281**
Current	206	185
Non-current	102	96

F.6. Inventories

Table → 3.41

3.41 INVENTORIES

in € million	Materials and supplies	Unfinished goods	Finished goods	Merchandise	Goods in transit	Advance payments	Total
							2024
Gross inventory as of Dec. 31, 2024	783	162	151	237	83	10	1,426
Accumulated write-down to net realizable value	(135)	(11)	(16)	(48)	–	–	(210)
As of Dec. 31, 2024	648	151	135	189	83	10	1,216
							2023
Gross inventory as of Dec. 31, 2023	767	143	140	172	89	9	1,320
Accumulated write-down to net realizable value	(121)	(8)	(16)	(33)	–	–	(178)
As of Dec. 31, 2023	646	135	124	139	89	9	1,142

The € 74 million increase in inventories to € 1,216 million as of December 31, 2024 (2023: € 1,142 million) is due in particular to the initial consolidation of KB Signaling, though the deconsolidation of R.H. Sheppard partly offset this increase.

F.7. Cash and cash equivalents

Table → 3.42

3.42 CASH AND CASH EQUIVALENTS

in € million	Dec. 31, 2024	Dec. 31, 2023
Cash and cash equivalents	2,263	1,291

Cash and cash equivalents include cash and demand deposits at credit institutions as well as highly liquid assets in different currencies that can be converted to cash quickly and are only subject to insignificant risks of changes in value.

The cash and cash equivalents are measured at acquisition cost and adapted by an adjustment for the probability of default in relation to the banks ("expected credit loss") based on a public issuer rating for core and principal commercial banks. Further information on the rating is provided in Chapter H.1.4.

F.8. Assets held for sale and corresponding liabilities

Assets held for sale and corresponding liabilities include assets of € 16 million (2023: € 221 million) and liabilities of € 10 million (2023: € 153 million). As of December 31, 2024, this line item was comprised of GT Emissions Systems.

The GT Emissions Systems companies allocated to the Commercial Vehicle Systems division are to be sold as part of a portfolio adjustment. Knorr-Bremse signed a sale agreement for the disposal group in August 2024. GT Emissions Systems comprises G.T. Group Ltd., Peterlee, United Kingdom and its subsidiary G T Emissions Systems Ltd., Peterlee, United Kingdom. Further information on the sale of GT Emissions Systems is provided in Chapter H.2.

A fair value measurement based on the outcome of the purchase price negotiations indicated a need for impairment of € 17 million of the carrying amounts of the assets recognized as of December 31, 2024. The impairment losses were presented under depreciation, amortization and impairment losses (€ 13 million) and under cost of materials (€ 4 million).

The disposal group GT Emissions Systems comprised the following assets and liabilities measured at their carrying amount as of December 31, 2024, after impairment: Table → 3.43

3.43 OVERVIEW OF GT EMISSIONS SYSTEMS ASSETS HELD FOR SALE AND CORRESPONDING LIABILITIES

in € million	Dec. 31, 2024
Assets	
Inventories	2
Trade accounts receivable	11
Other assets	2
Income tax receivables	1
Cash and cash equivalents	0
Current assets	**16**
Assets held for sale and disposal groups	**16**
Liabilities	
Other provisions	0
Financial liabilities	1
Deferred tax liabilities	0
Non-current liabilities	**1**
Other provisions	0
Trade accounts payable	8
Financial liabilities	1
Other liabilities	0
Current liabilities	**9**
Liabilities directly associated with assets held for sale	**10**
Assets and liabilities held for sale	**6**

The assets held for sale in the previous year and corresponding liabilities were sold in the 2024 fiscal year.

F.9. Equity

F.9.1. Subscribed capital

Knorr-Bremse AG's subscribed capital (capital stock) is divided into 161 million fully paid up no-par-value bearer shares with full voting rights, each representing a share of the capital stock of € 1.00. In total, the capital stock thus amounts to € 161 million. Each share guarantees the right to the dividend resolved by the Annual General Meeting.

The Executive Board is authorized, with the approval of the Supervisory Board, to increase the capital stock of the company on one or more occasions in the period up to May 4, 2028, by up to € 32 million by issuing up to 32 million new no-par-value bearer shares against cash and/or non-cash contributions (Authorized Capital 2023). The new shares are generally to be offered directly or indirectly to the shareholders for subscription. The Executive Board is, however, entitled, under certain conditions, to completely or partially exclude the subscription right with the consent of the Supervisory Board.

Furthermore, subject to the approval of the Supervisory Board, the Executive Board was authorized until May 4, 2028, to issue convertible bonds and/or bonds with warrants, profit participation rights and/or income bonds (or combinations of these instruments) possibly excluding the subscription right to create conditional capital (Conditional Capital 2023). To this end, the capital stock of Knorr-Bremse AG is conditionally increased by up to € 16 million by issuing up to 16 million new no-par-value bearer shares. The conditional capital increase is only to be implemented to the extent that conversion or option rights are exercised.

Stella Vermögensverwaltungs GmbH, Oberhaching, Germany, (hereinafter "Stella"), TIB Vermögens- und Beteiligungsholding GmbH, Oberhaching, Germany, (hereinafter "TIB") and KB Holding GmbH, Oberhaching, Germany, (hereinafter "KB Holding") have informed the company that they hold a majority interest in the company, either directly or indirectly. From the death of Heinz Hermann Thiele on February 23, 2021 and until their transfer to the Heinz Hermann Thiele Family Trust, Oberhaching, Germany (hereinafter the "Family Trust") established at the beginning of April 2023, the majority of shares in Stella were held by his widow, Mrs. Nadia Thiele, as the preliminary heir (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated March 25, 2021). From this date on, the voting rights under these shares were controlled by Mr. Robin Brühmüller, the executor of the deceased's estate. On December 6, 2024, Nadia Thiele transferred the shares she held in Stella to the Family Trust. Due to the control of the voting rights in Stella, the indirect equity interest of 58.99% held by KB Holding in Knorr-Bremse AG has also been attributed to the Family Trust since this date (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated December 9, 2024).

F.9.2. Capital reserves

The Group's capital reserve remains unchanged at € 14 million as of December 31, 2024.

F.9.3. Retained earnings

In addition to the legal reserve of the parent company, retained earnings contain the parent company's other retained earnings and the effect of IFRS transitions. Table → 3.44.

3.44 RETAINED EARNINGS

in € million	Dec. 31, 2024	Dec. 31, 2023
Legal reserves	16	16
Other retained earnings	293	(7)
Total	**309**	**9**

F.9.4. Group earnings

Group earnings include the profit carried forward from the previous year and the share of net income attributable to the shareholders of Knorr-Bremse AG.

F.9.5. Other components of equity

The line item other components of equity contains the changes in equity outside profit or loss. This includes currency translation differences as a result of the translation of annual financial statements of foreign subsidiaries, changes in the measurement of financial assets whose changes in fair value are recognized, the actuarial gains and losses from the measurement of benefits to employees reported in the year under review, the effects of hedge accounting as well as taxes recognized directly in equity.

F.9.6. Takeover disclosures required by law pursuant to section 289a HGB and section 315a HGB

A) PARTICIPATION IN CAPITAL EXCEEDING 10% OF VOTING RIGHTS

On the basis of the voting rights notifications received by the Company in accordance with the provisions of the German Securities Trading Act (WpHG), there is a participation in the capital of the Company that exceeds 10% of the voting rights. KB Holding GmbH, Oberhaching, Germany, currently holds 58.99% of the voting rights in Knorr-Bremse AG. Pursuant to section 34 (1) WpHG, these voting rights are attributable to TIB Vermögens- und Beteiligungsholding GmbH, Oberhaching, Germany, and Stella Vermögensverwaltung GmbH, Oberhaching, Germany, and were attributable to Mr. Robin Brühmüller in his capacity as executor of the estate of Heinz Hermann Thiele, who died on February 23, 2021, until December 6, 2024. The majority of shares in Stella were held by Mr. Thiele's widow, Mrs. Nadia Thiele, as the preliminary heir (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated March 25, 2021) until December 6, 2024. On December 6, 2024, Nadia Thiele transferred the shares in Stella that she held to the Heinz Hermann Thiele Family Trust, which was established in April 2023 (transfer in accordance with the December 9, 2024, voting rights notification pursuant to sections 33, 34 (1) WpHG). Due to the control of the voting rights in Stella, the indirect equity interest of 58.99% held by KB Holding in Knorr-Bremse AG has also been attributed to the Family Trust (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated December 9, 2024). The Family Trust thus became the controlling shareholder of Knorr-Bremse AG. Table → 3.45

3.45 VOTING RIGHTS NOTIFICATION

Party obligated to disclose	Date of reaching, exceeding or falling below the thresholds	Threshold value reached	Disclosure obligations and/or additions pursuant to WpHG*	New share of voting rights	
				In %	absolute
Mrs. Nadia Thiele, Germany[2]	February 23, 2021	50% exceeded	Section 34 WpHG	58.99	95,097,851
Mr. Robin Brühmüller, Germany[3]	May 17, 2021	50% exceeded	Section 34 WpHG	58.99	95,097,851
Heinz Hermann Thiele Family Trust[4]	April 06, 2023	50% exceeded	Section 38 WpHG	58.99	95,097,851
Mrs. Nadia Thiele, Germany[5]	December 09, 2024	fell below 3%	Section 34 WpHG	–	–
Mr. Robin Brühmüller, Germany[5]	December 09, 2024	fell below 3%	Section 34 WpHG	–	–
Heinz Hermann Thiele Family Trust[5]	December 09, 2024	50% exceeded	Section 34 WpHG	58.99	95,097,851

1 The aforementioned provisions of the WpHG refer to the version applicable at the time of publication of the voting rights announcement
2 Notification due to devolution of the inheritance to the heir owing to the passing of Heinz Hermann Thiele on February 23, 2021
3 Notification due to execution of Heinz Hermann Thiele's will
4 Notification due to legacy registration
5 Notification due to legacy registration from the will of Heinz Hermann Thiele

B) NOTIFICATIONS IN ACCORDANCE WITH THE GERMAN SECURITIES TRADING ACT:

Pursuant to section 160 (1) no. 8 of the German Stock Corporation Act (AktG), information must be provided on the existence of equity interests notified to Knorr-Bremse AG pursuant to section 20 (1) and (3) AktG or pursuant to section 33 (1) or (2) of the German Securities Trading Act (WpHG).

The German Securities Trading act requires investors whose share of voting rights in listed companies reaches certain thresholds to make a disclosure. The following reportable investments were notified to Knorr-Bremse AG in writing in the 2023 and 2024 fiscal years up until the balance sheet date; the information relates in each case to the most recent notification made to Knorr-Bremse AG by a reportable entity. All disclosures made by Knorr-Bremse AG regarding equity investments in the year under review and beyond can be found on the company's website (https://ir.knorr-bremse.com). Table → 3.45

F.9.7. Dividends

In the fiscal years, Knorr-Bremse AG declared and paid the dividends shown in Table → 3.46.

3.46 DIVIDENDS

in € million	2024	2023
€ 1.64 per bearer share (2023: € 1.45)	264	234

The dividends relate in all cases to the prior year. In the 2024 fiscal year a dividend of € 1.64 per bearer share was declared for the 2023 fiscal year and therefore paid in the total amount of € 264 million.

The Executive Board of Knorr-Bremse AG will propose that the Annual General Meeting distribute a total dividend of € 282 million for the past fiscal year. This corresponds to a dividend per share of € 1.75.

F.9.8. Capital management

The Group's objective is to maintain a strong capital base and ensure the sustainable development of the company.

To this end, the Group prepares short-term and long-term liquidity planning. Short-term liquidity planning covers a rolling planning horizon with precise expected cash flows including currency changes. Long-term liquidity planning is carried out annually with different time horizons in the divisions – for one year at Commercial Vehicle Systems and for two years at Rail Vehicle Systems.

To manage free cash flow[1], the Group has established a net working capital management and investment process. Demand-oriented investments, which serve to maintain and further develop the Company, are made within the annual target of around 3% to 5% of annual sales. Net working capital is managed by closely monitoring the divisions' working capital positions and liquidity management programs such as factoring and the sustainability-linked Supply Chain Finance Program. Net working capital is defined as the sum of inventories, trade accounts receivable, and contract assets less trade accounts payable and contract liabilities as well as current bills of exchange, which are recognized in the other financial assets/liabilities.

In addition, Knorr-Bremse makes targeted use of retained earnings to maintain a stable equity ratio. In principle, the Group plans to distribute between 40% and 50% of consolidated net income as dividends and to retain the remaining profit. This serves to strengthen the equity ratio with a target of over 30%. The Group defines the equity ratio as the ratio of equity to total assets.

F.10. Share-based payment arrangements

As of the end of the fiscal year, long-term bonus agreements (long-term incentives), which are structured as a share-based payment model, were in place with the Executive Board and selected members of the wider management team of the Group.

In the reporting year, the Group committed a total of 199,806 (2023: 219,338) share appreciation rights (SARs) to eligible individuals as of January 1, 2024. This commitment gives them the right to receive a cash payment after four years of service.

The extent of the disbursement for the 2024–2027 tranche is the product of the number of committed share appreciation rights, the average share price of Knorr-Bremse AG within the last 60 days before the end of the four-year assessment period and the relative total shareholder return (50% weighting), the return on capital employed (30% weighting) and the fulfillment of ESG targets (20% weighting). The disbursement is limited to a maximum of 200% of the target amount. The average actual value for the return on capital employed, in comparison with a defined target value, is assigned to a target corridor ranging from 0% to 200%. The relative total shareholder return of Knorr-Bremse AG is fixed in relation to the average total shareholder return of the companies from the industrial goods peer group selected by the Supervisory Board as well as selected rail and truck peers. The ESG criterion is determined from the reduction of Scope 1 + 2 CO_2e emissions and from employee satisfaction. Both the total shareholder return component and the ESG component

[1] Free cash flow is calculated by deducting disbursements for investments in property, plant, and equipment and intangible assets from cash flow from operating activities and adding deposits received from the sale of property, plant, and equipment as well as intangible assets.

are likewise assigned to a target corridor ranging from 0% to 200%.

For the 2021–2024, 2022–2025, and 2023–2026 tranches, the disbursement is calculated as the product of the number of committed share appreciation rights, the average share price of Knorr-Bremse AG within the last 60 days before the end of the four-year assessment period and the equally weighted development of EPS and relative total shareholder return. The payment for these tranches is capped at 180% (Executive Board Chair/CEO) or 200% (other Executive Board members) of the target amount. The average actual EPS value, in comparison with a defined target value, is assigned to a target corridor ranging from 0% to 200%. The relative total shareholder return is fixed in relation to three comparative groups in the assessment period. These comparative groups are the companies listed on the MDAX and two peer group companies defined by the Supervisory Board in the categories “Rail & Truck” and “High Quality Industrial Goods”. This component is likewise assigned to a target achievement corridor ranging from 0% to 200%.

The following amounts are set aside for the long-term incentive. Table → 3.47

3.47 CARRYING AMOUNT OF THE LTI PROVISION

in € million	2024	2023
2020–2023 tranche	–	1
2021–2024 tranche	6	2
2022–2025 tranche	2	1
2023–2026 tranche	6	3
2024–2027 tranche	4	–
	18	**7**

The following amounts were recognized as expenses for the long-term incentive: Table → 3.48

3.48 ADDITION TO THE LTI PROVISION

in € million	2024	2023
2020–2023 tranche	–	(1)
2021–2024 tranche	4	0
2022–2025 tranche	0	1
2023–2026 tranche	3	3
2024–2027 tranche	4	–
	11	**3**

As of the reporting date, the sub-target of EPS development was at a factor of 0.0% (2023: 59.0%) for the 2021–2024 tranche, 0.0% (2023: 0.0%) for the 2022–2025 tranche, and 77.0% (2023: 98.0%) for the 2023–2026 tranche. Starting with the 2024–2027 tranche, EPS development will no longer be a measurement parameter for the long-term incentive. The valuation of the sub-target of total shareholder return in relation to peer groups was carried out in a Monte-Carlo simulation. In this case, the EPS sub-target was also considered as an input factor in order also to take account of the maximum total disbursement of the LTI. Service- and market-independent performance conditions associated with the transactions were not considered in determining the value.

The following inputs were used in determining fair values on the grant date and on the measurement date of the share appreciation rights. Table → 3.49

3.49 VALUATION PARAMETERS AS OF THE RESPECTIVE MEASUREMENT DATE

Tranche	2021–2024	2022–2025	2023–2026	2024–2027
Parameters as of the grant date				
Grant date	Jan. 1, 2021	Jan.1, 2022	Jan.1, 2023	Jan.1, 2024
Closing price of Knorr-Bremse share	111.68	86.90	51.04	58.80
Calculated dividend yield	1.39%	1.75%	3.62%	2.47%
Knorr-Bremse volatility	30.15%	30.97%	38.53%	30.33%
Risk-free interest rate	-0.76%	-0.55%	2.53%	1.94%
Remaining term in years until allocation	4.00	4.00	4.00	4.00
Parameters as of the December 31, 2024 grant date				
Closing price of Knorr-Bremse share	70.35	70.35	70.35	70.35
Calculated dividend yield	2.33%	2.33%	2.33%	2.33%
Previous year's dividend paid by Knorr-Bremse	6.46	4.94	3.09	1.64
Knorr-Bremse volatility	27.55%	27.55%	28.33%	28.95%
Risk-free interest rate	0.00%	2.13%	1.99%	2.01%
Remaining term in years until allocation	0.00	1.00	2.00	3.00

Expected volatility is based on an assessment of the past volatility of the Company's share price, especially in the period that corresponds to the four-year term.

F.11. Employee benefits

Table → 3.50

F.11.1. Employee benefits

3.50 EMPLOYEE BENEFITS

in € million	Dec. 31, 2024	Dec. 31, 2023
Assets from employee benefits	24	26
Provisions for pensions	239	243
Other personnel related provisions	51	34
Provisions for employee benefits	**290**	**277**
Non-current	271	261
Current	19	16

The provisions for employee benefits include provisions for pension commitments and other personnel provisions.

In various countries, Knorr-Bremse makes pension commitments to its employees based on defined-benefit plans, the benefits of which depend either on the employee's pensionable remuneration or contain other guarantees. Pension commitments are measured based on actuarial principles using the projected unit credit method. The pension plan accruals reported in the balance sheet correspond to the present value of the defined-benefit obligation in consideration of future salary and pension increases as of the reporting date, less the fair value of the plan assets. An excess of plan assets beyond the present value of the defined-benefit obligation is limited to the present value of the benefit attributable to the company, from the reimbursement of contributions or the reduction of future contribution payments.

The defined-benefit plans in Germany and United Kingdom represent the majority of the gross obligation at approximately 70,0 %. Pension obligations from defined benefit -pension schemes also exist in France, India, Italy, Japan, Turkey, Austria, Sweden, Switzerland, South Korea and the USA. In Germany, the United Kingdom, Japan, South Korea, Austria (in some cases), and the USA, the benefits are granted on a voluntary basis, while, in the other countries, the benefits are based on statutory regulations.

GERMANY

Employees benefits are granted from pension schemes for which the benefits in old age, in the event of disability or death are calculated depending on the period of employment, the salary at the time of commencement of the annuity, and the relevant assessment ceiling in the statutory pension insurance scheme (BBG), as well as a defined benchmark figure. The benefits are paid in the form of a pension. The plan was closed to new admissions with effect from January 1, 2003. Plan participants primarily include beneficiaries. Moreover, individual plans also exist, especially amongst managers, which were concluded on an individual contractual basis.

The obligations in Germany are largely completely unfunded, which means that no plan assets exist, which are solely intended to meet pension commitments – with the exception of one company for which a pledged reinsurance policy exists.

In Germany, the interest rate risk as well as the life expectancy of the plant participants play a major role as part of a risk consideration, as the benefits are primarily paid in the form of an annuity. However, the risk was reduced by closing the pension plan to new admissions.

UNITED KINGDOM

In the United Kingdom, the employees and managers benefit from defined-benefit plans, which are closed to new admissions; in addition, existing plan participants are no longer entitled to any increase in entitlements, with the exception of a few special cases for which the benefits continue to increase together with the salary. At the time, the plan was Introduced on a voluntary basis. The plan provides for benefits upon retirement and death. Until the closure of the plan in 2012, these benefits were dependent on salary and years of service. Payment essentially occurs in the form of an annuity, whereby part of the benefit can also be paid out as a one-off capital payment at the request of the plan participant.

In the United Kingdom, a board of trustees, which is comprised of company and employee representatives, is responsible for asset management. The investment strategy targets long-term value additions with low volatility.

The pension schemes in the United Kingdom are exposed to the interest rate risk, due to the payment as a lifelong pension, as well as the risk of a higher life expectancy than assumed so that the pensions will have to be paid out for longer than planned. However, the risks were limited by closing the pension plan. Moreover, an investment risk also exists, in that the plan assets may not develop as expected and that the plan assets may therefore only be able to partially offset changes to the scope of obligations.

Please refer to Section E.5. with regard to expenses in connection with defined benefit pension plans.

F.11.2. Change in net debt Table → 3.51

3.51 CHANGE IN NET DEBT

	Defined benefit obligation		Fair value of plan asset		Net liabilities (net assets) from defined benefit plans	
in € million	2024	2023	2024	2023	2024	2023
As of Jan. 1	**475**	**435**	**258**	**235**	**217**	**200**
Current service costs	6	5	–	–	6	5
Past service costs	0	(1)	–	–	0	(1)
Gains/losses from settlements	–	–	–	–	–	–
Interest income	–	–	9	10	(9)	(10)
Interest expense	17	18	–	–	17	18
Net cash flow	(17)	(10)	(18)	(10)	1	0
Remeasurements	(4)	33	(7)	12	3	21
a) Return on plan assets	–	–	(6)	6	6	(6)
b) Actuarial gains/losses (change in demographic assumptions)	0	(2)	–	–	0	(2)
c) Actuarial gains/losses (change in financial assumptions)	(7)	26	–	–	(7)	26
d) Effect of experience adjustments	3	9	–	–	3	9
e) Asset ceiling	–	–	(1)	6	1	(6)
Currency translation differences	4	6	6	7	(2)	(2)
Employer contributions	(13)	(14)	5	3	(18)	(17)
Participant contributions	1	1	1	1	–	–
Effects of business combinations and disposals	–	1	–	0	–	1
As of Dec. 31	**469**	**475**	**254**	**258**	**215**	**217**
thereof						
Germany	199	202	2	2	197	200
United Kingdom	129	135	153	161	(24)	(26)
Switzerland	91	87	92	85	(1)	2
Other countries	50	51	7	10	43	41

F.11.3. Plan assets

Some pension obligations are secured by assets that meet the definition of plan assets in accordance with IAS 19. For these pension obligations, the net debt is reported from the defined-benefit obligation and the fair value of the plan assets.

For plans with a positive excess of the fair value of plan assets over the present value of the related obligation, the resulting asset is tested for impairment and, if necessary, limited to the present value of the economic benefits that the Group can derive from refunds or reductions in future contributions.

The plan assets primarily contain debt securities, investment funds and insurance policies, which are largely held by long-term, external carriers (funds). Plan assets are mainly held in the United Kingdom and Switzerland.

In order to reduce asset and liability risks (Asset-Liability-Matching, ALM), Knorr-Bremse has developed a risk minimization program in cooperation with trustees. The investment strategy is transferred to a qualified actuary who implements the investment strategy in relation to the pension plans and carries out the investment strategy.

The assets controlled as part of this transfer are allocated to a "Growth" or "Liability Hedging" portfolio. The allocation ratio is agreed at regular intervals.

The "Growth" portfolio comprises a combination of equities, fixed-income securities and other available funds that are available in the manager's portfolio. The fund manager determines the investment mix.

The "Liability Hedging" portfolio comprises LDI funds (liability-driven investment), fixed-income securities, index-linked funds, and other available funds that are available in the manager's portfolio. The fund manager determines the investment mix.

The objectives of the risk minimization strategy are to minimize the risk from the pension plans by increasing the allocation of assets to the liability hedging portfolio. Such reallocation must take place if agreed key figures are exceeded in order to make it possible to align assets with liabilities.

The pension obligations in the United Kingdom and Switzerland are largely covered by legally independent pension schemes. Any return of funds to the employer is precluded. The contracts meet the requirements for qualifying insurance policies pursuant to IAS 19.8.

In the fiscal year, adjustments totaling € - 1 million (2023: € 6 million) were recognized due to asset ceilings for the plan assets. These corrections are based on obligations of € 91 million (2023: € 86 million).

The plan assets comprise the investments shown in Table → 3.52.

3.52 PLAN ASSETS

in € million	Dec. 31, 2024	Dec. 31, 2023
Cash and cash equivalents	3	3
Equity instruments	35	13
Debt instruments	173	162
Real estate	18	6
Assets held by insurance companies	8	61
Investment funds	15	12
Less asset ceiling	(1)	(0)
Other	3	1
Fair value of plan assets	**254**	**258**
thereof		
United Kingdom	153	161
Switzerland	92	85
Other countries	9	12
Return on plan assets (including interest income)	**3**	**15**
thereof		
United Kingdom	(8)	13
Switzerland	11	2
Other countries	0	0

F.11.4. Actuarial assumptions

Table → 3.53 lists the key actuarial assumptions (in the form of weighted averages in %) used on the reporting date.

3.53 ACTUARIAL ASSUMPTIONS

In %	Dec. 31, 2024	Dec. 31, 2023
Defined benefit obligation		
Discount rate	3.7	3.6
Salary increase	3.1	3.0
Pension increases	1.9	1.9
thereof Germany		
Discount rate	3.5	3.5
Salary increase	3.0	3.0
Pension increases	2.0	2.2
thereof UK		
Discount rate	5.5	4.8
Salary increase	3.9	3.7
Pension increases	3.0	2.9
thereof Switzerland	1.0	1.50
Discount rate	1.5	1.7
Salary increase	-	-
Pension increases	-	-

The most important defined-benefit plans exist in Germany and the United Kingdom. The biometric basis for valuating these obligations in Germany is the generation-dependent guideline tables 2018 G from Prof. Klaus Heubeck, published by Heubeck Richttafeln GmbH on July 20, 2018. These tables are based on the newest statistics of the statutory pension insurance and the Federal Statistical Office and therefore reflect the most recent developments in probabilities of life expectancy, disability, marriage, and fluctuation. Since the average life expectancy has continued to rise (albeit more slowly than in the past), the pension obligations for domestic companies increased slightly.

In the United Kingdom, the mortality tables with projection CMI 2017 are used as the biometric basis.

Age-dependent turnover tables are also taken into account.

F.11.5. Future cash flows

In the 2025 fiscal year, employer payments into the plan assets are expected to amount to € 4 million. As of December 31, 2024, average annual benefit payments from pension plans in the amount of € 29 million (2023: € 29 million) were expected.

As of December 31, 2024, the weighted average term of the defined benefit obligation was 11.6 years (2023: 11.4 years).

F.11.6. Sensitivity analysis

The following sensitivity analysis presents the effects of reasonable changes of individual factors on the defined-benefit obligation as of the reporting date. Table → 3.54

3.54 SENSITIVITY ANALYSIS

	Dec. 31, 2024		Dec. 31, 2023	
in € million	Increase	Decrease	Increase	Decrease
Present value of defined-benefit obligation				
Change in discount rate 0.5%	(26)	29	(27) –	30
Change in salary increase rate 0.5%	3	(3)	3 –	(3)
Change in future pension increases 0.5%	17	(12)	18 –	(12)

Although the analysis does not take account of the complete distribution of the expected cash flows according to the plan, it provides an approximate value of the sensitivity of the -presented assumptions.

F.12. Other provisions

Table → 3.55

3.55 OTHER PROVISIONS

in € million	Warranty provisions	Contractual provisions	Other provisions	Total
				2024
As of Jan. 1, 2024	**309**	**10**	**39**	**358**
Currency translation differences	7	1	0	8
Additions	143	6	8	157
Additions to the scope of consolidation	6	19	2	27
Utilization	(108)	(5)	(8)	(121)
Reversals	(21)	(1)	(7)	(29)
Disposals from the scope of consolidation	(4)	–	(1)	(5)
Compounding	3	–	–	3
Reclassifications pursuant to IFRS 5	(0)	–	–	(0)
As of Dec. 31, 2024	**335**	**30**	**33**	**398**
thereof current	135	19	16	170
thereof non-current	200	11	17	228
				2023
As of Jan. 1, 2023	**307**	**13**	**45**	**365**
Currency translation differences	(9)	(0)	(0)	(9)
Additions	144	1	13	158
Additions to the scope of consolidation	0	–	–	0
Utilization	(94)	(4)	(14)	(112)
Reversals	(40)	(0)	(5)	(45)
Disposals from the scope of consolidation	(0)	(0)	–	(0)
Compounding	1	–	–	1
Reclassifications pursuant to IFRS 5	(0)	–	–	(0)
As of Dec. 31, 2023	**309**	**10**	**39**	**358**
thereof current*	108	4	21	133
thereof non-current*	201	6	18	225

* The prior-year figure was adjusted by reclassifying current provisions of € 38 million as non-current provisions.

The provisions for warranty obligations cover obligations from cases that have already occurred as well as future -obligations that are based on empirical values. The latter are essentially directly related to the development and structure of revenue. The provisions are based on estimates from -historical warranty data for similar products and services. For the long-term components, outflows are expected within the next two to five years.

Contractual provisions include provisions for onerous contracts amounting to € 30 million (2023: € 10 million). For the long-term components, outflows are expected within the next two to five years.

Other provisions related to individual identifiable risks and obligations, especially environmental protection obligations and process risks. For the long-term components, outflows are expected within the next two to five years.

F.13. Trade accounts payable and other liabilities

Trade accounts payable

Table → 3.56

3.56 TRADE ACCOUNTS PAYABLE

in € million	Dec. 31, 2024	Dec. 31, 2023
Trade account payables	1,139	1,202
Current	1,128	1,202
Non-current	11	–

Trade accounts payable decreased in the previous year by € 62 million from € 1,202 million to € 1,139 million.

Supplier finance arrangements

To support supplier financing, we offer suppliers a sustainability-linked Supply Chain Finance Program (SSCF). The purpose of this program is to facilitate efficient payment processes and enable suppliers to sell their receivables from the Group to a bank at a discount before the maturity date (factoring). The discount is calculated on the basis of the EURIBOR interest rate with matching maturities plus a company-specific risk premium. The agreement does not currently stipulate a maximum amount (per supplier or region) for early payment of invoices. The discount is lower than the standard market discount for early repayment. The Group did not derecognize the original trade accounts payable as there was neither a legal debt discharge nor a substantial change to the debt payable. From a Group perspective, the payment terms were not essentially modified due to the agreement. No additional interest and expenses are incurred by the Group for payment of debts to suppliers. The amounts of suppliers at the reverse factoring stage therefore continue to be reported by the Group under trade accounts payable since the nature and function of these liabilities correspond to those of trade accounts payable. Table → 3.57, Table → 3.58

3.57 TRADE ACCOUNTS PAYABLE THAT ARE THE SUBJECT OF SUPPLIER FINANCING ARRANGEMENTS

in € million	Dec. 31, 2024	Dec. 31, 2023
Trade accounts payable that are the subject of supplier financing arrangements	191	212
of which trade accounts payable for which the suppliers have already received payments from the bank	138	157

3.58 BANDWIDTH OF PAYMENT TERMS

in days	Dec. 31, 2024
Trade accounts payable that are the subject of supplier financing arrangements	30 - 190
Comparable trade accounts payable that are not the subject of supplier financing arrangements	30 - 180

The payments to the bank are included in the cash flow from operating activities because they remain part of the Group's normal operating cycle and their fundamental character remains operational, i.e., they represent payments for the purchase of goods and services. From the Group's perspective, payments by the bank to suppliers are non-cash transactions.

Other liabilities

The composition of other liabilities is shown in the table below. Table → 3.59

3.59 OTHER LIABILITIES

in € million	Dec. 31, 2024	Dec. 31, 2023
Liabilities from taxes	73	66
Social security liabilities	25	25
Deferred income	14	15
Other	39	22
	152	**128**
Current	139	121
Non-current	13	7

Other liabilities are valued as described in Chapter D.11.

F.14. Financial liabilities

Table → 3.60

3.60 FINANCIAL LIABILITIES

in € million	Dec. 31, 2024	Dec. 31, 2023
Bonds and debt instruments	2,553	1,457
Lease liabilities	555	528
Liabilities from options on minority interests	115	76
Liabilities towards credit institutions	66	74
Derivative financial instruments	47	8
Purchase price liabilities	45	63
Other financial liabilities	565	554
	3,946	**2,760**
Current	1,391	587
Non-current	2,555	2,173

Financial liabilities increased by € 1,186 million, from € 2,760 million to € 3,946 million.

The increase in bonds and debt instruments results from the issue of a bond in two tranches by Knorr-Bremse AG on September 23, 2024 with maturities of five and eight years and a total volume of € 1,100 million. This includes Knorr-Bremse's first green bond, which has a maturity of eight years, a volume of € 500 million and a coupon of 3.250%. The proceeds from the bond are going to appropriate green projects in the categories of clean transportation, renewable energies, energy efficiency, and green buildings in accordance with the Green Financing Framework of Knorr-Bremse AG. The coupon for the five-year bond with a volume of € 600 million is 3.000% and the proceeds from the bond are earmarked for general business purposes, including partial financing of the acquisition of KB Signaling. Moreover, part of the proceeds is being used to refinance the 2018 bonds that matures in 2025.

The 2018 bond with a volume of € 750 million has a coupon of 1.125% and matures in June 2025. The 2022 bond with a volume of € 700 million, which matures in September 2027, has a coupon of 3.25% which is linked to the positive validation of a greenhouse gas emissions (Scope 3) target by the Science Based Targets initiative (SBTi) (sustainability-linked bond). After achieving positive validation of the greenhouse gas emissions (Scope 3) sustainability performance target by the SBTi, this bond's coupon remains unchanged.

Because of the existing short-term loans (less than 3 months), liabilities to banks decreased by € 8 million, from € 74 million as of December 31, 2023 to € 66 million as of December 31, 2024.

The purchase price liabilities of € 45 million mainly relate to the acquisition of Cojali S.L.

Other financial liabilities include in particular liabilities to employees and liabilities from refunds.

The following table shows the reconciliation of movements of liabilities to cash flows arising from financing activities. **Table → 3.61**

3.61 RECONCILIATION OF MOVEMENTS OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCING ACTIVITIES 2024

					Liabilities	Derivative financial instruments (assets) /liabilities
in € million	Liabilities towards credit institutions	Bonds and debt instruments	Liabilities from options on minority interests	Other financial liabilities	Lease liabilities	Interest swap liabilities
As of Jan. 1, 2024	**74**	**1,457**	**76**	**554**	**528**	**–**
Change in cash flow from financing activities						
Proceeds from borrowings	14	1,085	–	–	–	–
Disbursements from the repayment of borrowings	(18)	–	–	(13)	–	–
Disbursements for lease liabilities	–	–	–	–	(69)	–
Interest paid	(8)	(31)	–	–	(20)	–
Dividends paid to parent company shareholders	–	–	–	–	–	–
Dividends paid to non-controlling interests	–	–	–	–	–	–
Proceeds from grants and subsidies	–	–	–	6	–	–
Payments for acquisition of non-controlling interests	–	–	–	–	–	–
Disbursements from the settlement of derivatives	(34)	–	–	–	–	–
Cash flow from financing activities	**(46)**	**1,054**	**–**	**(7)**	**(89)**	**–**
Changes arising from obtaining or losing control of subsidiaries or other businesses	**–**	**–**	**–**	**–**	**24**	**–**
Effects in foreign exchange rates	**0**	**–**	**–**	**–**	**9**	**–**
Other changes related to liabilities						
Other non-cash expenses and income	–	–	36	15	–	–
Interest expenses	7	42	3	10	21	–
New leases	–	–	–	–	62	–
Other cash flow changes	31	–	–	(7)	–	–
Changes in fair value	–	–	–	–	–	–
Total other changes, related to liabilities	**38**	**42**	**39**	**18**	**83**	**–**
Total other changes, related to equity						
As of Dec. 31, 2024	**66**	**2,553**	**115**	**565**	**555**	**–**

	Equity					
	Currency translation	Revaluations from defined pension benefits (IAS 19)	Capital reserves	Retained earnings	Non-controlling shares	Total
	(155)	(24)	14	9	68	2,601
	–	–	–	–	–	1,099
	–	–	–	–	–	(31)
	–	–	–	–	–	(69)
	–	–	–	–	–	(59)
	–	–	–	(264)	–	(264)
	–	–	–	–	(18)	(18)
	–	–	–	–	–	6
	–	–	–	–	–	–
	–	–	–	–	–	(34)
	–	–	–	(264)	(18)	630
	–	–	–	–	–	24
	–	–	–	–	–	9
	–	–	–	–	–	51
	–	–	–	–	–	83
	–	–	–	–	–	62
	–	–	–	–	–	24
	–	–	–	–	–	–
						220
	52	(7)	0	564	32	641
	(103)	(31)	14	309	82	4,125

3.62 RECONCILIATION OF MOVEMENTS OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCING ACTIVITIES IN 2023

	Liabilities					Derivative financial instruments (assets) /liabilities
in € million	Liabilities towards credit institutions	Bonds and debt instruments	Liabilities from options on minority interests	Other financial liabilities	Lease liabilities	Interest swap liabilities
As of Jan. 1, 2023	**206**	**1,456**	**66**	**494**	**510**	**0**
Change in cash flow from financing activities						
Proceeds from borrowings	16	–	–	–	–	–
Disbursements from the repayment of borrowings	(48)	–	–	(8)	–	–
Disbursements for lease liabilities	–	–	–	–	(67)	–
Interest paid	(10)	(31)	–	–	(18)	–
Dividends paid to parent company shareholders	–	–	–	–	–	–
Dividends paid to non-controlling interests	–	–	–	–	–	–
Proceeds from grants and subsidies	–	–	–	9	–	–
Payments for acquisition of non-controlling interests	–	–	–	(1)	–	–
Disbursements from the settlement of derivatives	10	–	–	–	–	–
Cash flow from financing activities	**(32)**	**(31)**	**–**	**0**	**(85)**	**–**
Changes arising from obtaining or losing control of subsidiaries or other businesses	**–**	**–**	**–**	**–**	**(7)**	**–**
Effects in foreign exchange rates	**–**	**–**	**–**	**1**	**7**	**–**
Other changes related to liabilities						
Other non-cash expenses and income	–	–	7	48	–	–
Interest expenses	10	32	3	11	18	–
New leases	–	–	–	–	85	–
Other cash flow changes	(110)	–	–	–	–	–
Changes in fair value	–	–	–	–	–	(0)
Total other changes, related to liabilities	**(100)**	**32**	**10**	**59**	**103**	**(0)**
Total other changes, related to equity						
As of Dec. 31, 2023	**74**	**1,457**	**76**	**554**	**528**	**–**

					Equity	
	Currency translation	Revaluations from defined pension benefits (IAS 19)	Capital reserves	Retained earnings	Non-controlling shares	Total
	(95)	(8)	14	10	65	2,718
	–	–	–	–	–	16
	–	–	–	–	–	(56)
	–	–	–	–	–	(67)
	–	–	–	–	–	(59)
	–	–	–	(234)	–	(234)
	–	–	–	–	(16)	(16)
	–	–	–	–	–	9
	–	–	–	–	–	(1)
	–	–	–	–	–	10
	–	–	–	(234)	(16)	(398)
	–	–	–	–	–	(7)
	–	–	–	–	–	8
	–	–	–	–	–	55
	–	–	–	–	–	74
	–	–	–	–	–	85
	–	–	–	–	–	(110)
	–	–	–	–	–	(0)
						104
	(60)	(16)	–	233	19	176
	(155)	(24)	14	9	68	2,601

3.63 INFORMATION IN ACCORDANCE WITH IFRS 9

in € million	Carrying amount				Dec. 31, 2024
Category	**FVTPL**	**FVOCI**	**Other**	**At amortized cost**	**Total**
Financial assets	**11**	**454**	**4**	**3,759**	**3,820**
Derivative financial instruments to which hedge accounting is applied	–	–	4	–	4
Derivative financial instruments to which hedge accounting is not applied	1	–	–	–	1
Equity instruments	10	21	–	–	31
Securities and debt instruments	–	–	–	–	–
Trade accounts receivable*	–	24	–	1,361	1,385
Purchase price receivables from disposal of land*	–	–	–	15	15
Other financial receivables*	–	–	–	121	121
Cash and cash equivalents*	–	–	–	2,263	2,263
Financial liabilities	**35**	**–**	**591**	**4,459**	**5,085**
Derivative financial instruments to which hedge accounting is applied	–	–	36	–	36
Derivative financial instruments to which hedge accounting is not applied	11	–	–	–	11
Liabilities towards credit institutions	–	–	–	66	66
Liabilities resulting from options on minority interests	–	–	–	115	115
Bonds and debt instruments	–	–	–	2,553	2,553
Lease liabilities	–	–	555	–	555
Purchase price liabilities*	24	–	–	21	45
Other financial liabilities*	–	–	–	565	565
Trade accounts payable*	–	–	–	1,139	1,139

in € million	Carrying amount				Dec. 31, 2023
Category	**FVTPL**	**FVOCI**	**Other**	**At amortized cost**	**Total**
Financial assets	**160**	**55**	**22**	**2,716**	**2,953**
Derivative financial instruments to which hedge accounting is applied	–	–	22	–	22
Derivative financial instruments to which hedge accounting is not applied	16	–	–	–	16
Equity instruments	3	21	–	–	24
Securities and debt instruments	141	–	–	–	141
Trade accounts receivable*	–	34	–	1,326	1,359
Purchase price receivables from disposal of land*	–	–	–	33	33
Other financial receivables*	–	–	–	66	66
Cash and cash equivalents*	–	–	–	1,291	1,291
Financial liabilities	**31**	**–**	**535**	**3,396**	**3,962**
Derivative financial instruments to which hedge accounting is applied	–	–	7	–	7
Derivative financial instruments to which hedge accounting is not applied	1	–	–	–	1
Liabilities towards credit institutions	–	–	–	74	74
Liabilities resulting from options on minority interests	–	–	–	76	76
Bonds and debt instruments	–	–	–	1,457	1,457
Lease liabilities	–	–	528	–	528
Purchase price liabilities*	30	–	–	33	63
Other financial liabilities*	–	–	–	554	554
Trade accounts payable*	–	–	–	1,202	1,202

* Without information on fair value due to the fact that the carrying amount approximately equals fair value

Fair value			
Level 1	Level 2	Level 3	Total
7	**32**	**21**	**60**
–	4	–	4
–	1	–	1
7	3	21	31
–	–	–	–
–	24	–	24
–	–	–	–
–	–	–	–
–	–	–	–
2,559	**228**	**24**	**2,811**
–	36	–	36
–	11	–	11
–	66	–	66
–	115	–	115
2,559	–	–	2,559
–	–	–	–
–	–	24	24
–	–	–	–
–	–	–	–

Fair value			
Level 1	Level 2	Level 3	Total
143	**72**	**21**	**236**
–	22	–	22
–	16	–	16
2	0	21	24
141	–	–	141
–	34	–	34
–	–	–	–
–	–	–	–
–	–	–	–
1,434	**82**	**30**	**1,545**
–	7	–	7
–	1	–	1
–	74	–	74
–	–	–	–
1,434	–	–	1,434
–	–	–	–
–	–	30	30
–	–	–	–
–	–	–	–

F.15. Financial instruments

F.15.1. Financial instruments

Table → 3.63 presents the non-netted carrying amounts and the fair values of the financial assets and liabilities as well as the categorization of the individual items. For the classification (hierarchy levels) of the fair value pursuant to IFRS 13, please refer to Chapter D.12.

The market value of financial derivatives is the price at which a party would take over the rights and/or obligations from another party. The market values are calculated based on the market information available on the reporting date using recognized measurement methods:

Forward exchange contracts and interest rate hedging contracts are valued on the basis of reference rates, taking forward premiums and discounts into account. Net present value calculations are performed using yield curves.

Commodity contracts are valued on the basis of quoted prices on active stock exchanges.

In addition, default risks are taken into account when measuring financial derivatives at fair value ("credit risk adjustments"). The calculation basis for the probabilities of default is the credit default spreads per counterparty and for the company.

The Group measures long-term receivables/loans based on parameters such as interest rates, certain country-specific risk factors, creditworthiness of the individual customers, and the risk characteristics of the financed project.

The fair values of the Group's interest-bearing loans are calculated using the discounted cash flow method. This is based on a discount rate, which reflects the issuer's borrowing rate at the end of the reporting period. In line with Knorr-Bremse's rating, the company's own default risk was classified as low over the entire period.

The purchase price liabilities accounted for at fair value through profit or loss in accordance with IFRS 9 recognize an earnout liability from the purchase of Cojali S.L. The liability is recognized at level 3 of the fair value hierarchy and is discounted using standard market rates with matching maturities.

The material measurement parameters for the earnout liability are the standard market discount rate with a matching maturity and the measurement-related earnings before interest and tax (EBIT). If the discount rate were to increase or decrease by 1 percentage point, the value of the purchase price liability recognized would decrease by 2% or increase by 2%, respectively. The EBIT measurement parameter refers both to annual EBIT up to and including 2026 and to the cumulative EBIT generated in this period. The annual measurement-related EBIT is considered reached when agreed target EBIT has been exceeded. The purchase price increases for cumulative EBIT until it reaches a contractually defined maximum level, with results beyond the maximum level not being accounted for in the purchase price calculation.

Liabilities fell to € 24 million as of December 31, 2024. This resulted from the reclassification of a € 7 million purchase price installment, which is now secure. The interest cost of € 1 million, which was recognized in the interest result, had an offsetting effect.

OFFSETTING Table → 3.64
3.64 GLOBAL OFFSETTING

in € million	Dec. 31, 2024	Dec. 31, 2023
Financial assets (derivatives)		
Gross values in the balance sheet	5	38
Potential netting capability	4	7
Net value	1	31
Financial liabilities (derivatives)		
Gross values in the balance sheet	47	8
Potential netting capability	4	7
Net value	43	1

The table “Global Offsetting” shows the extent to which financial assets and financial liabilities were offset in the balance sheet as well as the possible effects from the offsetting of instruments that are subject to a legally enforceable global netting agreement or a similar agreement.

Derivative trading is subject to a global netting agreement. However, the German framework agreement and the ISDA agreements do not meet the criteria for an offsetting obligation in the Group balance sheet. The right to offset is only enforceable in the event of future events (e.g., the insolvency of one of the contracting parties).

FACTORING

The Group participates in receivables sales programs, in which trade accounts receivable are sold to a financial services provider. Through these measures, the Group pursues the goal of improving the liquidity situation and the possible risk of default, especially in relation to customers with extended payment terms. At Knorr-Bremse, a distinction was made between factoring with derecognition from the balance sheet and without derecognition from the balance sheet. The Group only practiced factoring with derecognition from the balance sheet in the 2023 and 2024 fiscal years.

In the case of factoring with derecognition, essentially all opportunities and risks associated with ownership of the financial asset are transferred to the financial service providers. The intention is to hold the non-transferred receivables in a portfolio until final payment and to collect the contractual cash flows. The business model for these receivables is therefore classified as hold and sell and recognized at fair value with no effect on income. In the 2024 fiscal year, receivables of € 330 million (2023: € 361 million) were transferred in this way.

Due to the short term, the fair value of the receivables sold roughly corresponds to the carrying amount of the receivables prior to the transfer.

The notes on the financial result (Chapter E.8) provide information on the net gains and net losses from financial instruments by measurement category.

F.15.2. Impairment

Table → 3.65 shows the impairment losses recognized in accordance with IFRS 9 due to credit risks for debt instruments that are measured at amortized cost and at fair value with no effect on income.

3.65 FINANCIAL INSTRUMENTS IN IMPAIRMENT SCOPE

in € million	Impairment	Net change	Derecognition	Impairment
	Dec. 31, 2023			Dec. 31, 2024
Cash and cash equivalents	(0)	(0)	0	(0)
Trade accounts receivable (AC) and contract assets	(34)	(5)	9	(30)
Other financial assets	–	(65)	–	(65)
of which Level 2*	–	(11)	–	(11)
of which Level 3	–	(54)	–	(54)
	Dec. 31, 2022			Dec. 31, 2023
Cash and cash equivalents	(0)	(0)	0	(0)
Trade accounts receivable (AC) and contract assets	(32)	(14)	12	(34)

* For other financial assets with a gross amount of € 68 million, the expected credit loss is determined on the basis of a CCC rating with matching maturities, taking into account the terms to maturity.

The customers were divided into various categories. The calculated probabilities of default of the respective customer groups estimate the creditworthiness and the ability to meet commitments from receivables within the next 12 months.

For the 1st group, the adjustment takes place according to the public rating (S&P/Moody's or the implied rating according to the Thomson Reuters valuation model) and the associated probability of default on the respective cut-off dates.

For the 2nd group, a rating-equivalent comparative determination of the estimate is made.

For the 3rd group, the probability of default is determined by a credit agency.

For the 4th group, an average probability of default is determined on the basis of a comparison group with similar risk parameters.

F.15.3. Equity instruments

The company holds various investments in third companies as well as non-consolidated investments in affiliated/associated companies. These equity participations in the amount of € 10 million (2023: € 3 million) are reported at fair value.

Equity instruments recognized at fair value through other comprehensive income in the amount of € 21 million (2023: € 21 million) related to the investment in AutoBrains Technologies Ltd., Tel Aviv-Yafo, Israel. As in the previous year, Knorr-Bremse received no dividend from the investment in the reporting period and there were no changes to the fair value recognized in OCI.

F.15.4. Derivatives in hedge accounting

Table → 3.66 presents the notional amounts, the non-netted carrying amounts, the average hedging rate and the calculation parameters for determining the ineffectiveness of hedging instruments concluded to hedge the risks of changes in value in the context of cash flow hedges.

MEASUREMENT OF INEFFECTIVENESS

The Group uses the hypothetical derivative method to assess whether the designated derivative in each hedging relationship will prospectively be or has retrospectively been effective in relation to offsetting changes in cash flows of the hedged item. The prospective effectiveness is measured using critical terms match, whereby the critical parameters of the hedged item and hedge transaction, such as currency, term, and amount, match. Changes to the date of the hedged transactions and various effects of the counterparties' credit risk in the fair value of the hedged items and hedge transactions are possible causes of ineffectiveness.

For the hedging relationships in existence as of December 31, 2024, no material ineffectiveness has arisen.

RECLASSIFICATION

The hedging takes place in the revenues and purchase of intermediate products risk categories depending on the hedged item. Table → 3.67 shows the status of hedging transaction reserves and reserves for costs of hedging in 2024 and presents reclassifications of hedge reserves and reserves for costs of hedging broken down by risk category.

The interest rate risk from the September 2024 bond issue was also hedged in the 2024 fiscal year. In this case, the hedged item was the highly likely bond issue, and mirrored forward starting interest rate swaps were concluded as the hedging instrument. When the underlying transaction was concluded, the forward-starting interest rate swaps were terminated prematurely and, consequently, the cumulative amount in the cash flow hedge reserve will be reclassified over the term of the bonds. The forward starting interest rate swaps were designed as at full fair value.

3.66 HEDGING INSTRUMENTS IN HEDGE ACCOUNTING

Risk category – exchange rate risk	2024 fiscal year			2023 fiscal year	
	Forward exchange contracts			Forward exchange contracts	
in € million	Revenues	Purchases	IC USD loan	Revenues	Purchases
Notional amounts					
Notional amount of forward exchange contracts < 1 year	211	185	84	179	173
Notional amount of forward exchange contracts > 1 year	156	122	221	179	159
Carrying amounts					
Receivables	3	–	–	17	5
Liabilities	6	15	15	1	5
Average hedging rate < 1 year	EUR/CZK: 24.87 EUR/HUF: 420.54	EUR/USD: 1.10	EUR/USD: 1.13	EUR/CZK: 25.49 EUR/HUF: 418.12	EUR/USD: 1.14
Average hedging rate > 1 year	EUR/CZK: 25.46 EUR/HUF: 420.31	EUR/USD: 1.12	EUR/USD: 1.15	EUR/CZK: 24.76 EUR/HUF: 427.65	EUR/USD: 1.11
Hedge transaction balance sheet item	Other financial assets and liabilities including derivatives			Other financial assets and liabilities including derivatives	
Item in profit or loss affected by the reclassification	Revenues and cost of materials		Other financing expenses	Revenues and cost of materials	
Change in value of hedged item	(18)	(13)	21	(2)	(11)
Change in value of hedging instrument	18	13	(21)	2	11
Hedge ineffectiveness that has been recognized in the income statement	There is no material ineffectiveness			There is no material ineffectiveness	

3.67 RECLASSIFICATION OF THE CASH FLOW HEDGE RESERVES

in € million	2024 Hedging transactions reserve	2024 Reserve for costs of hedging	2023 Hedging transactions reserve	2023 Reserve for costs of hedging
As of Jan. 1				
Forward exchange contracts – revenues	1	(17)	7	(1)
Forward exchange contracts – purchases	(3)	4	21	3
Forward exchange contracts – IC USD loan	–	–	–	–
Interest rate derivatives	–	–	–	–
Cash flow hedge				
Changes in fair value				
Forward exchange contracts – revenues	17	(7)	(5)	(22)
Forward exchange contracts – purchases	17	4	(10)	5
Forward exchange contracts – IC USD loan	21	(6)	–	–
Interest rate derivatives	6	–	–	–
Amount reclassified to profit or loss:				
Forward exchange contracts – revenues	(4)	13	(1)	6
Forward exchange contracts – purchases	(2)	(3)	(11)	(2)
Forward exchange contracts – IC USD loan	(21)	(1)	–	–
Interest rate derivatives	(0)	–	–	–
Amount reclassified to cost of inventories				
Forward exchange contracts – revenues	–	–	–	–
Forward exchange contracts – purchases	(1)	(1)	(3)	(1)
As of Dec. 31				
Forward exchange contracts – revenues	14	(11)	1	(17)
Forward exchange contracts – purchases	10	4	(3)	4
Forward exchange contracts – IC USD loan	–	(8)	–	–
Interest rate derivatives	5	–	–	–

F.16. Income taxes

Table → 3.68

3.68 INCOME TAXES

in € million	Dec. 31, 2024	Dec. 31, 2023
Income tax receivables	82	85
thereof non-current	1	2
thereof current	81	83
Income tax liabilities	119	101
thereof non-current	6	4
thereof current	113	97

The current income tax receivables of € 81 million mainly relate to receivables from the years 2023 and 2024 and are due primarily to capital gains tax paid in connection with intragroup distributions of profit in Germany. Current income tax liabilities mainly relate to liabilities in connection with the tax audit in Germany for the years 2020 through 2024. This item also includes income tax liabilities for the current 2020 (to the extent not yet assessed), 2023 and 2024 tax calculations.

G. Notes to the Cash Flow Statement

The Group's statements of cash flows show the origin and use of cash flows and the net increase/decrease in cash and cash equivalents, and are prepared in compliance with IAS 7 (Statement of Cash Flows).

A distinction is made between cash flows from operating activities from investing and financing activities. The cash flows from operating activities are derived indirectly based on the annual net profit. By contrast, the cash flows from investing and financing activities are determined based on payments.

G.1. Cash flow from operating activities

The cash flow from operating activities is calculated by adjusting consolidated net income (including minority interests) for non-cash items, especially depreciation, amortization, and impairment losses on intangible assets and property, plant, and equipment, gains and losses on the disposal of noncurrent assets and on the sale of consolidated companies, and the interest result and investment result. Moreover, other changes in current assets, liabilities not related to investment and financing activities, and provisions are adjusted. It also includes the cash inflows from proceeds due to the settlement of the receivables underlying non-recourse factoring, as these do not constitute investing or financing activities. The cash flow from operating activities is shown following a correction of tax expenses and income, non-cash changes in the measurement of derivatives and other non-cash expenses and income.

The cash inflow from operating activities increased by € 128 million in 2024 compared with the previous year, to € 1,042 million

Consolidated net income fell by € 99 million to € 477 million, while depreciation, amortization and impairment in the 2024 fiscal year increased significantly to € 392 million (2023: € 351 million).

The non-cash measurement of derivatives changed from income of € 37 million in the previous year to expenses of € 48 million in the 2024 fiscal year. Other non-cash expenses and income changed by € 92 million, from € -24 million in the previous year to € 68 million. This change is mainly attributable to the fact that after gains from foreign currency valuation in the previous year, significant losses from foreign currency valuation were recognized in the reporting year.

The interest result decreased by € 22 million, from € 69 million in 2023 to € 47 million, mainly due to increased investments on the short-term money market. See Chapter E.8 for further details of the change in the interest result.

Tax expenses decreased by € 28 million, from € 197 million in the previous year to € 168 million due to the decline in income before taxes. The income tax payments likewise fell by € 55 million to € 204 million, primarily as a result of capital gains tax on an intragroup distribution in the previous year.

G.2. Cash flow from investing activities

The cash flow from investing activities results from the cash outflow for investments in intangible assets, property, plant, and equipment, and financial assets and for the acquisition of consolidated companies and the cash inflow from the disposal of intangible assets, property, plant, and equipment, financial assets and the sale of consolidated companies.

Interest received in investing activities is also reported.

In the event of changes to the group of consolidated companies by selling or buying companies, the purchase price paid (not including acquired debt) is reported as cash flow from investing activities.

In the 2024 fiscal year, cash outflow from investing activities rose by a total of € 340 million

A cash inflow from the sale of financial assets of € 193 million (2023: € 45 million) primarily arose from disposals in connection with the special fund.

Disbursements for investments in financial assets decreased by € 40 million year-on-year to € 44 million and largely related to purchases in connection with the special fund.

In the 2024 fiscal year, Knorr-Bremse spent € 636 million on the acquisition of consolidated companies, mainly for the acquisition of KB Signaling in the Rail Vehicle Systems division.

G.3. Cash flow from financing activities

The cash flow from financing activities is calculated by netting the shareholder dividends paid and bank debt and loans obtained, and their repayment and interest payments. Other effects included here are disbursements for the repayment of lease liabilities and cash outflows to non-controlling interests. Furthermore, cash inflows and outflows are reported from the settlement of freestanding derivatives that were exercised during the fiscal year and are not part of hedge accounting. Moreover, the cash flow from financing activities includes proceeds from grants and subsidies.

In the 2024 fiscal year, there was a cash inflow from financing activities of € 630 million (2023: cash outflow of € 398 million), which is mainly due to the corporate bond issued in September with a total volume of € 1,100 million.

Interest paid of € 59 million (2023: € 59 million) primarily resulted from the interest payments for the publicly traded corporate bonds.

G.4. Composition of cash and cash equivalents Table → 3.69

3.69 CASH FUNDS AT END OF PERIOD

in € million	Dec. 31, 2024	Dec. 31, 2023
Cash and cash equivalents	2,263	1,291
Reclassification as assets held for sale and disposal groups	0	30
Short-term liabilities to credit institutions (less than 3 months)	(33)	(38)
	2,230	**1,283**

In the reporting year, the development of the individual cash flows, after adjustment for effects caused by exchange rates of € 25 million, resulted in an increase in funds by € 946 million to € 2,230 million.

The cash funds recognized in the statement of cash flows include the cash and cash equivalents presented in Chapter F.7., the cash and cash equivalents presented in Chapter F.8. that have been reclassified to the line item “assets held for sale and disposal groups” and liabilities to banks from overdraft facilities with maturities of up to three months, which are payable on demand.

H. Other Information

H.1. Managing of financial risks

As a result of its global operating activities, the Group is exposed to various financial risks, especially market risks, credit risks, and liquidity risks. The Group-wide risk management is focused on the unpredictable nature of developments on the financial markets and aims to minimize the potential negative effects on the Group's financial situation. The objective of the company policy is to limit risks through systematic financial management. To do so, the Group specifically uses financial derivatives to hedge against market risks.

The central Group Finance Department is responsible for risk management in accordance with the guidelines adopted by the Executive Board. It identifies, assesses, and hedges financial risks in close cooperation with the Group's operating units. The Executive Board provides guidelines for risk management as well as fixed principles for certain risk areas.

H.1.1. Currency risks

Currency risks arise from future transactions involving both the purchase of intermediate products and the sale of end products. Receivables and liabilities recognized in the balance sheet as well as highly probable expected cash flows in foreign currencies are examined. Risk positions also arise from financing in foreign currencies.

The objective of the Group's hedging transactions is to reduce the risks from exchange rate fluctuations. For this purpose, currency exposure is centralized and the aggregated position is hedged with external banks using forward exchange transactions and options. The terms are based on the terms of the underlying transactions, whereby the planning and hedging horizon generally extends over three years. Currency futures and option transactions are exclusively entered into to hedge existing and future foreign currency receivables and payables from the purchase and sale of goods, as well as to eliminate the currency risk for financing transactions. The operating exposures for the next 12 months are shown. Stable exposure is assumed for subsequent years. Table → 3.70

3.70 CURRENCY EXPOSURE

in € million	USD	HUF	CZK
			Dec. 31, 2024
Operating exposure	307	(208)	(111)
Derivatives	(288)	139	71
			Dec. 31, 2023
Operating exposure	284	(181)	(117)
Derivatives	(179)	113	78

Knorr-Bremse uses hedge accounting to record the hedging of fluctuating cash flows that result from exchange rate movements and are associated with transactions that are highly likely to occur and intragroup loans. The prerequisite for hedge accounting is that the economic relationship between the hedging instrument and the hedged item is documented and its effectiveness is proven. At the inception of the designated hedging relationships, the Group documents the risk management objectives and strategies for undertaking the hedge.

The company uses the value at risk as the primary risk measure to determine the risk potential for currency risks based on management reporting. It indicates the maximum loss that is not likely to be exceeded within a certain time period (12 months) with a certain probability (95%). Both the recognized and planned exposures and hedging transactions are included in the analysis. The value at risk is calculated for the core currencies of USD, HUS, and CZK. Table → 3.71

3.71 VALUE AT RISK

in € million	2024	2023
USD	2	19
HUF	9	13
CZK	3	3

Exposures to other currencies exist, which, however, do not have a material effect on earnings. The aim of hedging is to reduce or eliminate the foreign currency risks resulting from the underlying transaction by entering into suitable financial derivatives.

H.1.2. Interest rate risks

Interest rate risks arise as a result of market-related fluctuations in the interest rates. They affect the level of the Group's interest expenses. These arise in the Knorr-Bremse Group from variable-interest financial obligations.

Interest rate risks are aggregated at headquarters and hedges are made at individual case level, taking into account the hedging period and nominal volume of the risk position.

With one exception, the existing leases do not have interest rate risks. The exception is the variable components of obligations under a lease. The two interest rate swaps from 2023 to hedge these were canceled in early 2024.

The interest rate risk position, which includes variable-interest credit balances and liabilities, is shown below on the respective reporting date: Table → 3.72.

3.72 INTEREST RATE EXPOSURE

in € million	Dec. 31, 2024	Dec. 31, 2023
Fixed-interest financial debt	2,558	1,462
Variable-interest financial debt	61	69
Interest rate derivatives	-	27

Table → 3.73 shows the sensitivity of the Group earnings to a change in interest rates (by a rise of 100 basis points and a fall of 25 basis points) on variable-rate loans and balances as well as on the present value of interest rate derivatives.

3.73 EFFECT ON EARNINGS

	Dec. 31, 2024		Dec. 31, 2023	
in € million	+100 bp	– 25 bp	+100 bp	– 25 bp
Variable-interest financial debt	(1)	0	(1)	0
Interest rate derivatives	-	-	0	(0)
Total	**(1)**	**0**	**(1)**	**0**

H.1.3. Commodity price risks

Commodity price risks arise from the fact that raw materials (especially metals) required in the production process can only be procured at higher costs due to fluctuating market prices, without a full price adjustment in sales transactions. The planned purchases of raw materials or components with raw material contents as well as the corresponding sales contracts are taken into account for the analysis of the commodity price risk. The resulting risk position, representing our exposure, is continuously monitored and hedged on a case-by-case basis using commodity swaps. Hedge accounting is not applied here.

The volume of the underlying transactions is calculated from the highly probable need for commodities over a rolling one-year planning period. Table → 3.74 lists the quantities of commodity exposures on the purchasing side for hedging them. The remaining open position can essentially be passed on the sales side.

3.74 COMMODITY EXPOSURE

in metric tons	Dec. 31, 2024	Dec. 31, 2023
Aluminum	6,577	6,441

Table → 3.75 shows the sensitivity of consolidated earnings to commodity prices (10% increase/decrease in the market price).

3.75 EFFECT ON EARNINGS

	Dec. 31, 2024		Dec. 31, 2023	
in € million	+10%	-10%	+10%	-10%
Aluminum	(2)	2	(1)	1
	(2)	**2**	**(1)**	**1**

H.1.4. Credit risks

Credit risks arise from investments with banks, operating trade receivables from customers, loan receivables as well as contract assets. On the credit institution's side, the risk relates to counterparty default, while on the customer's side the risk relates to late, partial, or no settlement of receivables without compensation and to default.

The carrying amount of the financial assets reported in the consolidated financial statements represents the maximum default risk. Regular monitoring is carried out both on the bank side and on the customer side. Decisions on financial transactions are made on the basis of this monitoring. Contracts on financial derivatives and financial transactions are only concluded with financial institutions with high credit ratings in order to keep the counterparty default risk as low as possible.

In principle, commercial transactions are exposed to the risk of a possible loss of value due to the defaulting of business partners, such as banks, suppliers, and customers.

SCREENING PROCESS FOR BANKS

The monitoring of core banks, including their rating and CDS development, as well as the diversification of the Group's business activities and investments, takes place on a quarterly basis. Compliance with the regulations in the guideline on the management of banking relationships is also reviewed at the same time. This specifies that no more than 25% of total deposits may be held by an individual bank and that business relationships may essentially only be maintained with banks with an investment grade rating. Financial investments are fine-tuned and adjusted as required on this basis. As a result, the assumption of low credit risk is supported by the investment guidelines only for investment-grade rated banks through regular controls.

IMPAIRMENT OF DEPOSITS

All of the company's deposits are held in the business accounts of a small number of selected banks, most of which belong to the group of core and principal commercial banks used by the Group. A public issuer rating is provided by established rating agencies for all core and principal commercial banks. For the Impairment of these cash holdings, the probability of default is calculated according to the rating scale. The rating indicators and probabilities of occurrence are updated quarterly. Table → 3.76

The shift in the value of the creditworthiness structure for investments is based largely on the change in the core and principal commercial bank structure (addition of further principal commercial banks for which regular checks are carried out to the rating portfolio).

3.76 RATINGS

in € million	Dec. 31, 2024	Dec. 31, 2023
AAA to A	1,563	924
A- to BBB-	521	96
Not allocated, but within the investment grade range	179	271
	2,263	**1,291**

SCREENING PROCESS FOR CUSTOMERS AND SUPPLIERS

When establishing new business relationships, public sources, such as credit agencies, are used to obtain an economic business evaluation and credit opinion in advance. During the business relationship, a regular monitoring process occurs via the automated, system-based analyses of customer and supplier portfolios. This takes into account the probabilities of occurrence and sales volumes. While suppliers are monitored as a group, major customers are reviewed on an individual basis.

IMPAIRMENT OF RECEIVABLES

The credit rating structure of the Company's receivables portfolio is illustrated in Table → 3.77, 3.78.

3.77 CREDIT STRUCTURE FOR TRADE ACCOUNTS RECEIVABLE AND CONTRACT ASSETS

in € million		Dec. 31, 2024	Dec. 31, 2023
Top customers	AAA to A	389	374
Top customers	A- to BBB-	448	509
Top customers	Worse than BBB-	–	–
Other receivables without a rating allocation on an individual basis		708	553
		1,545	**1,436**

3.78 CREDIT STRUCTURE FOR TRADE ACCOUNTS RECEIVABLE AND CONTRACT ASSETS – EXPECTED CREDIT LOSS

in € million		Dec. 31, 2024	Dec. 31, 2023
Top customers	AAA to A	0	0
Top customers	A- to BBB-	0	1
Top customers	Worse than BBB-	–	0
Other receivables without a rating allocation on an individual basis		30	33
		30	**34**

As of the reporting date, there were no material agreements that limit the maximum default risk. No significant collateral was received in the period under review. The shift in the value of the creditworthiness structure is based on the one hand on the change in the key customer structure itself and on the other hand on a change in the number of key customers.

According to the sales analysis of the customer structure, the 30 largest customers per division together account for the majority of total sales. This group therefore also accounts for the largest amount of total receivables. Receivables from this customer group are measured and their default probabilities determined in detail on a one-by-one basis using either a debtor-specific CDS spread or a rating-equivalent benchmark CDS spread or on the basis of credit reports, if they are available from publicly accessible information platforms or credit agencies.

For other customers outside the group of major customers, the probability of default is assessed on the basis of the benchmark CDS spread determined.

The default probabilities are updated quarterly. The identification of the 30 largest customers per division is updated annually.

The probabilities of default calculated reflect the creditworthiness of the respective company. In the case of impairment, due dates of receivables play a subordinate role because the underlying average terms of the receivables in the Group are largely in the short-term range.

There was no material concentration of a default risk with regard to a business partner or a clearly distinguishable group of business partners.

H.1.5. Equity share price risks

Knorr-Bremse invested cash and cash equivalents of € 150 million in a special fund in November 2020. The special fund was dissolved in the third quarter of 2024. An equity share price risk arose for the Group if equities, equity index funds and equity derivatives were held in this fund.

H.1.6. Liquidity risks

Liquidity risks arise from the possibility that funds required to satisfy payment obligations cannot be procured on time.

Within the Knorr-Bremse Group, liquidity risks arise from payment obligations arising from operating transactions or financing obligations. The management of liquidity within the Group is intended to ensure that sufficient cash and cash equivalents are always available to meet payment obligations at maturity under both normal and tense conditions without incurring unacceptable losses or damaging the reputation of the Group. Liquidity requirements from business activities over the next three months are determined on a rolling weekly basis and differentiated by currency in short-term liquidity planning. This planning takes into account the more precise expected cash flows.

As part of rolling liquidity planning, medium-term planning is additionally carried out annually with different time horizons in the divisions – for one year at Commercial Vehicle Systems and for two years at Rail Vehicle Systems. The liquidity requirement is determined on the basis of the forecast cash flows. This process allows appropriate actions to be taken at an early stage in case of changes to the financing requirements.

The Group has sufficient cash and cash equivalents available to meet its payment obligations. In addition, there are credit, overdraft and guarantee lines totaling € 2,633 million (2023: € 2,493 million), of which € 1,968 million was undrawn. On June 14, 2018, the company issued a € 750 million bond that will be repaid in 2025. On September 15, 2022, the company issued a € 700 million sustainability-linked bond maturing in 2027. Furthermore, a bond with a volume of € 1,100 million was issued in September 2024 in two tranches with a maturity until 2029 and 2032, respectively.

The sustainability-linked Supply Chain Finance Program (see Chapter F.13) is handled via a credit institution. The purpose of this program is to facilitate efficient settlement of supplier invoices and to offer participating suppliers payment dates that are earlier than the due date of the invoice concerned. The agreement allows the Group to centralize payments of trade accounts payable to the bank instead of paying each supplier individually. From the Group's perspective, the program does not significantly extend payment deadlines versus normal deadlines with other non-participating suppliers.

Table → 3.79 shows the remaining contractual maturities of the financial liabilities as of December 31, 2024, including the estimated interest payments. This relates to undiscounted gross amounts, including estimated interest payments.

3.79 MATURITIES

in € million	Carrying Amount	Contractually agreed cash flows	Up to 1 year	1 to 5 years	Over 5 years
					2024 fiscal year
Derivative financial instruments	47	1,257	710	547	–
Liabilities towards credit institutions	66	66	61	5	1
Liabilities resulting from options on minority interests	115	133	–	133	–
Bonds and debt instruments	2,553	2,847	815	1,483	549
Purchase price liabilities	45	47	17	30	–
Lease liabilities	555	668	88	265	315
Other financial liabilities	565	730	452	196	81
Trade accounts payable	1,139	1,139	1,128	11	–
	5,086	**6,887**	**3,272**	**2,670**	**946**
					2023 fiscal year
Derivative financial instruments	8	464	360	104	–
Liabilities towards credit institutions	74	74	66	6	2
Liabilities resulting from options on minority interests	76	101	–	101	–
Bonds and debt instruments	1,457	1,558	31	1,527	–
Purchase price liabilities	63	66	27	39	–
Lease liabilities	528	633	96	231	306
Other financial liabilities	554	678	440	125	113
Trade accounts payable	1,202	1,205	1,205	0	–
	3,962	**4,779**	**2,225**	**2,133**	**421**

H.2. Events after the reporting date

DISPOSAL OF GT EMISSIONS SYSTEMS

The sale of GT Emissions Systems, which was presented under assets held for sale and corresponding liabilities in the 2024 fiscal year, closed on January 22, 2025. GT Emissions Systems comprises G.T. Group Ltd., Peterlee, United Kingdom and its subsidiary G T Emissions Systems Ltd., Peterlee, United Kingdom. The sale price was an amount in the mid-double-digit millions and is subject to usual post-closing conditions, which could still change the price. We expect a deconsolidation loss in the low single-digit millions. GT Emissions Systems was bought by UK-based private equity fund Rcapital Partners.

MARC LLISTOSELLA'S CONTRACT RENEWED

The Supervisory Board of Knorr-Bremse AG renewed the contract with the Chief Executive Officer of Knorr-Bremse AG, Mr. Marc Llistosella, ahead of time by five years until December 2030.

H.3. Number of employees

Table → 3.80

3.80 AVERAGE NUMBER OF EMPLOYEES

Number	2024	2023
Wage earners	16,673	17,235
of which leased personnel	3,373	3,565
Salaried employees	16,313	15,789
of which leased personnel	226	184
	32,986	**33,024**

In the 2024 fiscal year, the average number of employees was 32,986 (previous year: 33,024). The number of employees excluding leased personnel was 29,388 (previous year: 29,275).

H.4. Auditor fees

Table → 3.81

3.81 AUDITOR FEES

in € thousand	2024	2023
Audit services	3,937	3,286
Other assurance services	355	291
Other services	373	368
	4,665	3,945

The fee for auditing services of the annual financial statements provided by KPMG AG Wirtschaftsprüfungsgesellschaft referred to the audit of the consolidated financial statements and the company's annual financial statements along with the summarized Group management report of Knorr-Bremse Aktiengesellschaft and of the Group as well as various audits of the annual financial statements of its German subsidiaries, including key focal points of the audit agreed with the Supervisory Board. Moreover, the audit included a review of the interim financial statements for the first half of 2024.

Other assurance services were provided for voluntary reviews of the non-financial statement in accordance with ISAE 3000, the issue of a comfort letter, audits related to the use of public funding and other contractually agreed assurance services.

Other services concern quality assurance measures mainly in connection with quarterly and sustainability reporting as well as process consulting not related to accounting.

H.5. Transactions with related parties

Related parties within the meaning of IAS 24 are natural persons or companies that can be influenced by Knorr-Bremse AG, that can exert an influence on Knorr-Bremse AG, or that are under the influence of another related party of Knorr-Bremse AG. Transactions with related parties were conducted at arm's length.

H.5.1. Parent company and ultimate parent entity

The Group is directly controlled by KB Holding GmbH, Oberhaching, Germany (hereinafter "KB Holding"), which holds around 58.99% of the shares of the Group.

The shares in KB Holding are held by TIB Vermögens- und Beteiligungsholding GmbH, Oberhaching, Germany (hereinafter "TIB"), of which Stella Vermögensverwaltungs GmbH, Oberhaching, Germany (hereinafter "Stella"), as the ultimate controlling party, in turn held a majority interest. To the knowledge of the Executive Board, from the death of Mr. Heinz Hermann Thiele as the ultimate controlling party on February 23, 2021 and until their transfer to the Heinz Hermann Thiele Family Trust, Oberhaching, Germany (hereinafter the "Family Trust") established in April 2023, the majority of shares in Stella were held by his widow, Mrs. Nadia Thiele, as the preliminary heir (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated March 25, 2021). From this date on, the voting rights under these shares were controlled by Mr. Robin Brühmüller, the executor of the deceased's estate. On December 6, 2024, Nadia Thiele transferred the shares she held in Stella to the Family Trust. Due to the control of the voting rights in Stella, the indirect equity interest of 58.99% held by KB Holding in Knorr-Bremse AG has also been attributed to the Family Trust since this date (in accordance with the voting rights notification pursuant to sections 33 and 34 (1) WpHG dated December 9, 2024).

H.5.2. Related parties

All related parties that can be controlled by the Group or over which the Group can exercise significant influence are listed in the notes in chapter H.12.

Balances and transactions between Knorr-Bremse AG and its subsidiaries included in the consolidated financial statements that are related parties have been eliminated in the course of consolidation and are not explained in these notes.

In addition to the companies included in the consolidated financial statements, in the course of its normal business activities the Group also has relationships with other non-consolidated companies and associates and joint ventures that are considered to be related parties within the meaning of IAS 24.

H.5.3. Remuneration of key management personnel

Management in key positions consists of the Executive Board and the Supervisory Board. The remuneration of members of management in key positions (on an expense basis) includes: Table → 3.82

3.82 REMUNERATION OF MANAGEMENT

in € thousand	2024	2023
Compensation of the Executive Board		
Short-term compensation	11,357	11,661
Post-employment benefits	1,467	1,400
Termination benefits	-	2,598
Share-based payment	3,930	1,370
	16,754	**17,029**
Compensation for the Members of the Supervisory Board		
Short-term compensation	2,403	2,390
	2,403	**2,390**
Total	**19,157**	**19,419**

The remuneration of the members of the Executive Board includes salaries, benefits in kind, and contributions to defined-benefit and defined-contribution plans for post-employment benefits. The post-employment benefits of € 1,467 thousand (2023: € 1,400 thousand) concerned expenses for defined-contribution plans for Executive Board members active in the fiscal year. The remuneration for members of the Supervisory Board is paid out in the following year after the end of the Annual General Meeting.

Since the 2020 fiscal year, the LTI recognized under share-based payments has been awarded as a performance share plan based on virtual shares and paid out in annual tranches. The term of a tranche is four years (the "performance period"). This begins on January 1 of the respective grant year and ends on December 31 of the third year after the grant year. The LTI is paid out following approval of the consolidated financial statements for the last fiscal year of the relevant performance period. The amount of the LTI payout directly depends on the performance of Knorr-Bremse shares during the performance period. For the last time for the 2023–2026 tranche, it also depends in equal parts on the company's total shareholder return (TSR) over the performance period compared with the TSR of companies in three individually specified peer groups (relative TSR) over the same period and on the average increase in earnings per share (EPS) during this period relative to a target value set by the Supervisory Board at the start of the performance period. Starting from the 2024–2027 tranche, the EPS criterion was replaced by the return on capital employed (ROCE) with a 30% weighting and, as non-financial performance criteria, by the ESG targets for reducing Scope 1 + 2 emissions and for employee satisfaction (ESG) with a combined weighing of 20%. The Supervisory Board set values for both the ROCE and the ESG targets at the start of the performance period.

For further details, please refer to the information on LTI in the compensation report and in Chapter F.10.

TOTAL REMUNERATION OF THE SUPERVISORY BOARD AND THE EXECUTIVE BOARD IN ACCORDANCE WITH SECTION 314 (1) NO. 6 IN CONJUNCTION WITH SECTION 315E (1) HGB

The total remuneration of the members of the Supervisory Board granted in 2024 amounted to € 2,403 thousand (2023: € 2,390 thousand). In 2024, total remuneration granted to the Executive Board amounted to € 18,222 thousand (2023: € 18,028 thousand). Total remuneration granted includes share-based payment for the fiscal year with a fair value of € 5,398 thousand (2023: € 4,996 thousand) and 85,901 (2023: 94,585) virtual performance shares.

Former members of the Executive Board and their surviving dependents were awarded total remuneration of € 1,619 thousand in the fiscal year (2023: € 4,782 thousand). Pension provisions for former members of the Executive Board and their surviving dependents amounted to € 47,928 thousand as of December 31, 2024 (2023: € 49,632 thousand).

H.5.4. Purchase of goods and services

Table → 3.83

3.83 SALE OF GOODS AND SERVICES

in € million	2024	2023
Sale of goods and services		
Associated companies	130	134
Ultimate parent entity and other persons connected with the estate	0	0
Other related companies and persons	1	2
	131	**136**

The sale of goods and services to related parties comprises legal transactions within and outside the scope of normal delivery and service relationships. Services to the ultimate parent entity and other persons connected with the estate in the amount of € 0 million (2023: € 0 million) related to reimbursed expenses.

Goods and services were purchased from related parties at arm's length.

H.5.5. Purchase of goods and services Table → 3.84

3.84 PURCHASE OF GOODS AND SERVICES

in € million	2024	2023
Purchase of goods and services		
Associated companies	23	29
Ultimate parent entity and other persons connected with the estate	0	0
Ultimate parent entity and other persons connected with the estate (rents)	0	0
Other related companies and persons (rents)	21	19
Other related companies and persons (goods and services)	2	2
	46	**50**

The purchase of goods and services comprised legal transactions within the framework of and outside normal delivery and service relationships. In the previous year, backcharges of € 0 million had been paid for leases and incidental rental costs that ended on December 31, 2023.

Goods and services (including rents) were purchased from related parties at arm's length conditions.

H.5.6. Miscellaneous business transactions Table → 3.85

3.85 MISCELLANEOUS BUSINESS TRANSACTIONS

in € million	2024	2023
Disposal of land and other assets to		
Related companies	-	2
	-	**2**
Donations to		
Related companies (Knorr-Bremse Global Care e. V.)	2	3
	2	**3**
Dividends to		
Parent company (KB Holding GmbH)	156	138
	156	**138**
Further business transactions		
Ultimate parent entity and other persons connected with the estate	-	0
Associated companies	7	8
Related companies	(0)	(0)
	7	**8**

Miscellaneous business transactions with related parties were conducted at arm's length.

H.5.7. Balances with related parties Table → 3.86

3.86 BALANCES WITH RELATED PARTIES

in € million	Dec. 31, 2024	Dec. 31, 2023
Right-of-use assets pursuant to IFRS 16		
Related companies	15	111
Ultimate parent entity and other persons connected with the estate	1	1
	16	**112**
Receivables to		
Associated companies	115	110
Related companies	0	20
Ultimate parent entity and other persons connected with the estate	0	0
	115	**130**
Liabilities to		
Associated companies	13	19
Related companies	17	142
Ultimate parent entity and other persons connected with the estate	1	1
	31	**162**

In the previous year, the buildings leased back under the sale and leaseback transaction concluded in 2019 at the Munich site were recognized under right-of-use assets and the corresponding liabilities to related companies in accordance with IFRS 16. After Nadia Thiele had transferred the shares in Stella to the Family Trust, these items decreased significantly.

The remaining right-of-use assets in accordance with IFRS 16 and the reported liabilities to related companies mostly relate to rented properties in Austria and Germany.

Receivables from associated companies result from deliveries and services as well as from the granting of loans.

Receivables from related parties result from trade receivables. The prior-year figure had also included receivables from the sale of land.

The receivables are unsecured and are settled in cash. No guarantees have been given or obtained. No impairment losses were recognized for unrecoverable or doubtful receivables from related parties in the current fiscal year or previous fiscal years.

The liabilities to associated companies result from deliveries and services.

No material transactions took place with entities under common control.

H.6. Executive bodies

H.6.1. Executive Board of Knorr-Bremse AG

Marc Llistosella, Chief Executive Officer (CEO)
- Responsible in particular for Strategy, Communications, Digitalization, IT, Information Security, Corporate Security and Internal Audit
- Member of the Advisory Board of Vaionic Technologies GmbH

Dr. Nicolas Lange
- Responsible for the Rail Vehicle Systems Division.
- Chair of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Dr. Claudia Mayfeld
- Responsible in particular for Integrity, Legal, IP, Data Protection and Human Resources
- Member of the Supervisory Board of UniCredit Bank GmbH (until October 2024)

Bernd Spies
- Responsible for the Commercial Vehicle Systems division
- Chair of the Supervisory Board of Knorr-Bremse Systeme für Nutzfahrzeuge GmbH
- Member of the Advisory Board of KAMAX Holding GmbH & Co. KG (from June 2024)

Frank Markus Weber
- Responsible in particular for Finance, Accounting, Controlling, Taxes, Treasury, M&A, Sustainability and Investor Relations
- Member of the board of Nexxiot AG, Switzerland (from August 2024)

H.6.2. Supervisory Board of Knorr-Bremse AG

Dr. Reinhard Ploss, Munich
- Chair of the Supervisory Board
- Member of the Supervisory Board of Deutsche Telekom AG
- Ordinary member of the TUM University Council
- Member of the Board of Trustees of Foundation for Demoscopy Allensbach
- Member of the Quantum Computing Advisory Board of Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR)
- Chair of Qutac (Quantum Technology & Application Consortium) Executive Committee
- Honorary member of Board of Trustees, Stifterverband für die Deutsche Wissenschaft
- Chair of the Advisory Board of CustomCells Group

Franz-Josef Birkeneder*, Aldersbach
- Deputy Chair of the Supervisory Board
- Global project support, Knorr-Bremse Commercial Vehicle Systems

Dr. Theodor Weimer, Frankfurt/Main
- Deputy Chair of the Supervisory Board
- Chairman of the Executive Board of Deutsche Börse AG (until December 31, 2024)
- Member of the Supervisory Board of Deutsche Bank AG

Kathrin Dahnke, Bielefeld
- Independent management consultant
- Chair of the Audit Committee
- Member of the Supervisory Board and Chair of the Audit Committee of B. Braun SE
- Member of the Supervisory Board and Chair of the Audit Committee of Jungheinrich AG
- Member of the Supervisory Board of Aurubis AG
- Member of the Supervisory Board of Fraport AG

Manuela Deseive*, Munich (since January 1, 2025)
- Commercial assistant
- Member of the Works Council of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Knorr-Bremse AG, Knorr-Bremse Services GmbH
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Michael Jell*, Munich (until June 30, 2024)
- Full-time member of the Works Council of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Knorr-Bremse AG, Knorr-Bremse Services GmbH
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Thomas Mittmann*, Munich (since July 1, 2024)
- Technical coordinator in site & facility management
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Berlin

Dr. Sigrid Evelyn Nikutta, Berlin
- Member of the Executive Board (Goods Traffic) of Deutsche Bahn AG and CEO of DB Cargo AG
- Chair of the Board of Trustees of Deutsches Institut für Wirtschaftsforschung (DIW)
- Member of the University Council, Bielefeld University

Wolfgang Nirschl*, Passau
- Managing Director and First Authorized Representative of IG Metall trade union in Passau

Werner Ratzisberger*, Aldersbach
- Full-time member of the Works Council of Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

Annemarie Sedlmair*, Munich
- IG Metall Bezirksleitung Bayern, legal counsel
- Member of the Supervisory Board of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH
- Member of the Supervisory Board of Bosch Rexroth AG
- Member of the Advisory Board of Fachakademie für Arbeitsrecht der Kritischen Akademie Inzell

Dr. Stefan Sommer, Meersburg
- Chair of the Strategy Committee
- Member of the Board of Directors of Aeva Inc., California, US
- Chair of the Supervisory Board of Jost Werke AG
- Member of the Presidential Council of DEKRA e.V.

Julia Thiele-Schürhoff, Munich
- Member of the Executive Board of Heinz Hermann Thiele Family Trust
- Chair of the Executive Board of Knorr-Bremse Global Care e.V.

Sylvia Walter*, Berlin (until December 31, 2024)
- Accountant, commercial administration employee
- Member of the Works Council of Hasse & Wrede GmbH

* elected by the employees

H.7. Other financial obligations

Table → 3.87

3.87 OTHER FINANCIAL OBLIGATIONS

in € million	Up to 1 year	1 to 5 years	Over 5 years	Total
				Dec. 31, 2024
Rent and lease obligations	4	4	0	8
Investment projects	29	7	–	36
Major repairs/maintenance work	11	4	–	15
Other obligations	82	59	21	162
	126	**74**	**21**	**221**
				Dec. 31, 2023
Rent and lease obligations	4	3	0	7
Investment projects	30	2	–	32
Major repairs/maintenance work	10	5	–	15
Other obligations	89	58	28	175
	133	**68**	**28**	**229**

The future rental and lease obligations firstly result from rental and lease agreements that contain variable lease payments and secondly from short-term or low-value rental agreements and leases that are not recognized under the exemption in IFRS 16.5. The prior-year figure had been dominated by rental agreements that had already been signed but did not commence until after the reporting dates, after which they will be accounted for in accordance with IFRS 16.

The obligations for capital expenditure projects mainly relate to ongoing construction projects as well as to upgrading and expansion expenditure on production plant and equipment.

Obligations for major repairs and maintenance work mostly comprise obligations in connection with maintenance at the Munich location.

In addition, the other liabilities item includes uncompleted orders as well as purchase obligations for building service charges, logistics service contracts and license obligations.

H.8. Contingent liabilities

Table → 3.88

3.88 CONTINGENT LIABILITIES

in € million	2024	2023
Guarantees	10	10
Warranties	0	1
Other	0	0
	10	**11**

Contingent liabilities lead to possible obligations that cannot be influenced due to the occurrence of potential future events. The amount of these obligations can also not be adequately calculated.

The Company's contingent liabilities involve guarantees and warranties. Guarantees were issued for outstanding bank bonds, performance warranties were issued for banks and a rent guarantee was issued for commercial/factory buildings. The associated probability of occurrence was considered to be low in 2024 due to the ongoing stable business development of the borrower.

Alleged irregularities in conjunction with the initiation of business some time ago were reported through the Knorr-Bremse whistleblowing system. In the reporting year, provisions for tax risks in a single-digit million amount continued to be recognized in the consolidated financial statements for issues that were identified as part of a completed internal investigation. An additional investigation was commissioned on further reports received via the whistleblowing system. The investigation was concluded in February 2023. No further provisions were recognized for this. Should these issues become the subject of an investigation by the authorities, and should this investigation determine there had been violations of applicable law, this could lead to additional risks for the Group. At the time the consolidated financial statements were prepared, it is not possible to estimate the additional financial impact of this contingent liability.

Tax risks may result in potential payment obligations of € 3 million (2023: € 4 million). Due to the low probability, no provision was recognized. The best possible estimate of contingent liabilities is made on the basis of the information available at the time of preparation. This estimate may change over time and is regularly adjusted to reflect new findings and circumstances.

H.9. Legal disputes and litigation

COMPLAINTS FILED BY HALDEX AB WITH THE EUROPEAN COMMISSION AND THE BRAZILIAN ANTITRUST AUTHORITIES

The Brazilian Administrative Council for Economic Defense (CADE), that country's antitrust authority, moved on June 23, 2020, to initiate a formal procedure based on Knorr-Bremse possibly executing a prohibited transaction under merger control laws when it acquired its minority interest in Haldex AB in September 2016. On July 12, 2024, the CADE Office of the Superintendent-General moved to abandon the procedure on the grounds that the acquisition in 2016 did not require registration with the CADE under merger control laws, and therefore dropped its allegation against Knorr-Bremse.

ADMINISTRATIVE ACTION IN BRAZIL

On September 27, 2016, the Brazilian antitrust authorities initiated administrative proceedings against the Group company Knorr-Bremse Sistemas para Veículos Comerciais Brasil Ltda., Itupeva, Brazil ("KBB"), and several of its competitors in Brazil. The allegations against KBB are limited to an allegedly unlawful exchange of information and do not involve antitrust behavior. As the proceedings are still ongoing, no reliable statement can be made at this time about the probability of success or the possible consequences of an adverse outcome of the proceedings. Knorr-Bremse currently assesses the risk of any fine as rather low and therefore no provision or contingent liability was recognized.

INVESTIGATION AT THE COMPETITION COMMISSION OF INDIA

On June 19, 2023, the Competition Commission of India sent a request for information to Knorr-Bremse India Rail (KBI), a Group subsidiary, in relation to KBI's participation in various calls for tenders for brake disks in India. The commission is assessing if anticompetitive arrangements may have been made with these calls for tender. The proceedings are still at an investigative stage in which the authorities are evaluating documents and witness statements. No reliable statement can be made at this time on the outcome of the proceedings. For this reason, no provision or contingent liability was recognized.

PUBLIC INTEREST LITIGATION

A Public Interest Litigation (PIL) has been filed in Jaipur High Court against Indian Railway (IR), the Indian railway authority RDSO, KBI and the licensees Prag Rubber Industries (Prag) and Medha Railway Equipments (Medha). The lawsuit filed by three Indian lawyers alleges that IR and RDSO, against the background of an allegedly defective design of the BMBS brake from KBI, Prag and Medha, (i) is endangering the safety of trains, (ii) this resulted in the derailment of trains, and (iii) IR allowed an upgrade to the BMBS without RDSO approval. At a court hearing on November 14, 2024, the PIL was admitted for an in-depth examination and the defendants were notified of the filing of the PIL, but the lawsuit has not yet been served. No reliable statement can be made at this time on the outcome of the lawsuit. For this reason, no provision or contingent liability was recognized.

WINGMAN FUSION – CLASS ACTION

A trucking company in the USA has filed a class action lawsuit in an Illinois court against the truck manufacturers Navistar and Paccar as well as the commercial vehicle component supplier Bendix, a Group subsidiary of Knorr-Bremse AG. Bendix distributes the Wingman Fusion driver assistance system (product) in the USA. The plaintiff claims that the product is defective and that this has caused damage to a large number of vehicle owners. The truck manufacturers and Bendix consider the lawsuit to be without merit because (i) the product is not defective and (ii) no class action can be brought in connection with the alleged defect. Bendix and the other defendants filed a statement of defense requesting that the lawsuit be dismissed as inadmissible or, in the alternative, as without merit. No reliable statement can be made at this time on the outcome of the lawsuit. For this reason, no provision or contingent liability was recognized.

H.10. Government grants

Government grants include grants for structural support and business development as well as funding for research and development projects.

No grants for assets were recognized in the 2024 fiscal year (2023: € 3 million).

Performance-related grants in 2024 amounting to € 11 million (2023: € 9 million) were recognized in profit or loss. Performance-related grants are essentially reported in other operating income.

H.11. Leases

Accounting for leases

The Group has entered into leases for land, buildings, a variety of technical equipment, machinery, vehicles and operating and office equipment that it uses in its operations. The respective useful lives are specified in Chapter D.6. The Group's commitments from its leases are collateralized by the lessor's ownership of the leased assets. Several leases, largely for land and buildings, include extension and termination options. The unrecognized residual value guarantees and the extension and termination options not taken into account amounted to € 30 million as of December 31, 2024 (2023: € 7 million).

The Group has also concluded leases for machinery that have a term of twelve months or less and for office equipment of low value. The Group applies the practical expedients that apply to short-term leases and leases of low value assets to these leases.

The following table presents the carrying amounts of the right-of-use assets recognized: Table → 3.89

3.89 RIGHT-OF-USE ASSETS

in € million	Dec. 31, 2024	Dec. 31, 2023
Assets		
Non-current assets		
Right-of-use assets – land and buildings	491	472
Right-of-use assets – technical equipment and machinery	2	3
Right-of-use assets – other equipment, furniture, and fixtures	23	19
Total	**516**	**494**

The following table lists the additions to right-of-use assets as shown in non-current assets: Table → 3.90

3.90 ADDITIONS TO RIGHT-OF-USE ASSETS

in € million	2024	2023
Assets		
Non-current assets		
Right-of-use assets – land and buildings	58	95
Right-of-use assets – technical equipment and machinery	0	3
Right-of-use assets – other equipment, furniture, and fixtures	15	12
Total	**73**	**110**

The following table shows the carrying amounts of the lease liabilities (which are included in financial liabilities) and the changes during the reporting period: Table → 3.91

3.91 LEASE LIABILITIES

in € million	Dec. 31, 2024	Dec. 31, 2023
Liabilities		
Non-current financial liabilities		
Lease liabilities	483	465
Current financial liabilities		
Lease liabilities	72	63
Total	**555**	**528**

The maturity analysis of the lease liabilities is disclosed in Chapter H.1.6.

The following amounts were recognized in profit or loss in the reporting period: Table → 3.92

3.92 AMOUNTS AFFECTING PROFIT OR LOSS

in € million	2024	2023
Operating expenses	**18**	**20**
Expenses from short-term leases	10	13
Expenses from leases of low value assets	6	5
Expenses from variable lease payments	1	1
Other expenses from leases (e.g., incidental expenses)	1	1
Depreciation, amortization, and impairment	**72**	**68**
Depreciation of right-of-use assets – land and buildings	61	58
Depreciation of right-of-use assets – technical equipment and machinery	1	1
Depreciation of right-of-use assets – other	10	9
Financial result	**22**	**17**
Interest expense on lease liabilities	20	18
Expenses/income from the currency translation of lease liabilities	2	(1)

* Operating expenses are a cash item in the fiscal year.

The Group had cash outflows for capitalized leases in 2024 of € 89 million (2023: € 85 million). The future cash outflows for leases that have not yet commenced are disclosed in Chapter H.7. Of these, € 0 million (2023: € 0 million) is attributable to leases that have been entered into but have not yet commenced, € 7 million (2023: € 6 million) is attributable to low-value and short-term leases and € 1 million (2023: € 1 million) is attributable to leases with variable payments.

Judgments

When applying the Group's accounting policies, the management made the following judgments that materially influence the amounts in the consolidated financial statements:

The Group determines the lease terms based on the non-cancelable period of the lease and taking into account periods covered by an option to extend the lease if the Group is reasonably certain to exercise that option or periods covered by an option to terminate the lease if the Group is reasonably certain not to exercise that option. The Group has completed several leases that include extension and termination options. The Group makes judgments when assessing whether it is reasonably certain to exercise or not to exercise the lease's extension or termination option. This means it takes into account all relevant factors that represent an economic incentive for it to exercise the extension or the termination option. After the commencement date, the Group reassesses the lease term upon the occurrence of a significant event or a change in circumstances that is within its control and affects whether it is reasonably certain to exercise an option or not to exercise an option to extend or terminate the lease (e.g., conducting significant leasehold improvements or significant customization of the underlying asset).

ASSUMPTIONS AND ESTIMATES

When applying the Group's accounting policies, the management made the following assumptions and estimates that materially influence the amounts in the consolidated financial statements:

Leases – Estimate of the Incremental Borrowing Rate

The Group cannot readily determine the interest rate implicit in the lease. It therefore uses its incremental borrowing rates to measure lease liabilities. The incremental borrowing rate is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The incremental borrowing rate thus reflects the interest that the Group would have to pay. If no observable interest rates are available (e.g., at subsidiaries that do not enter into financing transactions) or if the interest rate has to be adjusted in order to reproduce the terms of the lease (e.g., if the lease was not entered into in the subsidiary's functional currency), the incremental borrowing rate must be estimated. The Group estimates the incremental borrowing rate using observable inputs (e.g., market interest rates), if these are available, and must make certain company-specific estimates (e.g., standalone credit assessment of the subsidiary).

H.12. List of shareholdings

The Table → 3.93 shows the list of shareholdings in accordance with section 313 (2) HGB.

3.93 LIST OF SHAREHOLDINGS

1. Consolidated affiliated companies	Share of capital in %	Currency and unit	Equity	Income	Total assets
Alisea Srl., Taranto, Italy	100.0	€ million	3	0	6
Anchor Brake Shoe Company LLC, West Chicago, Illinois, USA	100.0	€ million	1	0	9
Bendix Commercial Vehicle Systems LLC, Avon, Ohio, USA	100.0	€ million	567	(17)	1,044
Bendix CVS Canada Inc., Anjou, Québec, Canada	100.0	€ million	10	3	23
Bendix CVS de México S.A. de C.V, Cd Acuña, Coahuila, Mexico	100.0	€ million	41	5	92
Bendix Servicios de México S.A. de C.V., Tapodaca, Nuevo León, Mexico	100.0	€ million	11	1	14
B&C Transit Inc, Oakland, California, USA[3)]	100.0	€ million	13	1	45
Cojali France S.a.r.l., Martillac, France	100.0	€ million	3	0	6
Cojali Italia S.R.L., Cesano Boscone, Milan, Italy	100.0	€ million	1	0	3
Cojali S.L., Ciudad Real, Spain	55.0	€ million	139	30	199
Cojali USA Inc., Doral, Florida, USA	51.0	€ million	11	2	19
Comet Fans S.r.l., Solaro, Milan, Italy	100.0	€ million	6	3	15
Distribuidora Bendix CVS (de) México SA de CV, Cd Acuña, Coahuila, Mexico	100.0	€ million	5	1	13
Dr. techn. Josef Zelisko, Fabrik für Elektrotechnik und Maschinenbau Ges.m.b.H., Mödling, Austria[1)]	100.0	€ million	9	0	46
Dyno-Inno Test Center for Brake Equipment (Suzhou) Ltd., Suzhou, China	100.0	€ million	1	0	1
EVAC GmbH, Wedel, Germany[1)]	100.0	€ million	46	(3)	69
G.T. Group Ltd., Peterlee, United Kingdom	100.0	€ million	6	-	6
GT Emissions Systems Ltd., Peterlee, United Kingdom	100.0	€ million	2	(2)	32
Guangdong Knorr-Bremse Guo Tong Railway Vehicle Systems Equipment Co., Ltd., Jiangmen, Guangdong, China	100.0	€ million	7	1	7
Hasse & Wrede CVS Dalian, China Ltd., Dalian, China	80.0	€ million	16	8	35
Hasse & Wrede GmbH, Berlin, Germany[1)]	100.0	€ million	12	0	28
Heine Resistors GmbH, Dresden, Germany	100.0	€ million	7	2	12
IFE-CR a.s., Brno, Czech Republic	100.0	€ million	21	6	76
IFE North America LLC, Westminster, Maryland, USA	100.0	€ million	4	1	9
IFE-VICTALL Railway Vehicle Door Systems (Qingdao) Co., Ltd., Qingdao, China	59.0	€ million	25	3	96
KB Signaling Inc., West Henrietta, New York, USA[3)]	100.0	€ million	747	(5)	859
KB Signaling Operation LLC, Grain Valley, Montana, USA[3)]	100.0	€ million	282	14	342
KB Rail Transportation Equip. Co Ltd., Wuhan, China[3)]	100.0	€ million	1	(0)	1
Kiepe Electric India Pvt. Ltd., Faridabad, India	100.0	€ million	0	(0)	0
Knorr Brake Company LLC., Westminster, Maryland, USA	100.0	€ million	45	13	125
Knorr Brake Holding Corporation, Avon, Ohio, USA	100.0	€ million	510	24	1,386
Knorr Brake Rail Mexico, SA de CV, Acuña, Mexico	100.0	€ million	10	0	19
Knorr-Bremse/Nankou Air Supply Unit (Beijing) Co., Ltd., Nankou, China	55.0	€ million	11	4	34
Knorr-Bremse Asia Pacific (Holding) Limited, Hong Kong, China	100.0	€ million	726	176	823
Knorr-Bremse Australia Pty. Ltd., Granville, Australia	100.0	€ million	23	5	110
Knorr-Bremse Benelux B.V.B.A., Heist-op-den-Berg, Belgium	100.0	€ million	1	0	2

1. Consolidated affiliated companies	Share of capital in %	Currency and unit	Equity	Income	Total assets
Knorr-Bremse Global Truck Management GmbH, Munich, Germany[1)]	100.0	€ million	0	-	0
Knorr-Bremse Braking Systems for Commercial Vehicles (Dalian) Co. Ltd., Dalian, China	100.0	€ million	95	13	165
Knorr-Bremse Brasil (Holding) Administração e Participação Ltda., Itupeva, Brazil	100.0	€ million	35	11	35
Knorr-Bremse CARS LD Vehicle Brake Disc Manufacturing (Beijing) Co., Ltd., Daxing, China	50.0	€ million	60	43	137
Knorr-Bremse Commercial Vehicle Systems Japan Ltd., Tokyo, Japan	100.0	€ million	22	10	80
Knorr-Bremse Commercial Vehicle Systems (Shanghai) Co., Ltd., Shanghai, China	100.0	€ million	17	(3)	65
Knorr-Bremse Commercial Vehicle Systems (Thailand) Ltd., Bangkok, Thailand	100.0	€ million	5	1	24
Knorr-Bremse DETC Commercial Vehicle Braking Technology Co., Ltd., Shiyan, China	51.0	€ million	28	3	83
Knorr-Bremse España, S.A., Getafe, Spain	100.0	€ million	59	16	180
Knorr-Bremse EVAC, LLC, Carson, California, USA	100.0	€ million	12	(2)	18
Knorr-Bremse Fékrendszerek Kft., Kecskemét, Hungary	100.0	€ million	49	18	130
Knorr-Bremse Guo Tong (Guangzhou) Railway Transportation Equipment Co., Ltd., Guangzhou/China	100.0	€ million	(0)	1	14
Knorr-Bremse Ges.m.b.H., Mödling, Austria	100.0	€ million	163	114	311
Knorr-Bremse Ibérica S.L., San Fernando de Henares, Spain	100.0	€ million	3	1	9
Knorr-Bremse India Pvt. Ltd., Faridabad, India	100.0	€ million	126	38	213
Knorr-Bremse Investment GmbH, Munich, Germany[1)]	100.0	€ million	24	-	24
Knorr-Bremse Rail Systems Schweden AB, Lund, Sweden	100.0	€ million	6	3	24
Knorr-Bremse Pamplona S.L., Pamplona, Spain	100.0	€ million	19	5	59
Knorr-Bremse Polska SfN Sp. z o.o., Warsaw, Poland	100.0	€ million	2	1	3
Knorr-Bremse Rail Systems Denmark A/S, Taastrup, Denmark	100.0	€ million	22	(17)	108
Knorr-Bremse Rail Systems Italia S.r.l., Campi Bisenzio, Italy	100.0	€ million	37	5	99
Knorr-Bremse Rail Systems Japan Ltd., Tokyo, Japan	94.0	€ million	10	1	23
Knorr-Bremse Rail Systems Korea Ltd., Seoul, South Korea	100.0	€ million	8	1	15
Knorr-Bremse Rail Systems Schweiz AG, Niederhasli, Switzerland	100.0	€ million	12	4	30
Knorr-Bremse Rail Systems (UK) Ltd., Melksham, Wiltshire, United Kingdom	100.0	€ million	48	31	130
Knorr-Bremse Rail Transportation Equipment (Changchun) Co., Ltd. Changchun/China	100.0	€ million	3	1	18
Knorr-Bremse Rail Transportation Equipment (Chengdu) Co., Ltd., Chengdu/China	100.0	€ million	1	(1)	7
Knorr-Bremse Rail Transportation Equipment (Chongqing) Co., Ltd., Chongqing, China	100.0	€ million	1	(0)	6
Knorr-Bremse Railway Technologies (Shanghai) Co., Ltd., Shanghai, China	100.0	€ million	(14)	(0)	1
Knorr-Bremse Raylı Sistemler Sanayi ve Ticaret Limited Şirketi, Ankara, Turkey	100.0	€ million	2	1	5
Knorr-Bremse S.A. Holding Company (UK) Ltd., Melksham, Great Britain	100.0	€ million	6	-	6
Knorr-Bremse S.A. (Pty.) Ltd., Kempton Park, South Africa	75.0	€ million	15	5	23
Knorr-Bremse S.R.L., Bucharest, Romania	100.0	€ million	1	0	1
Knorr-Bremse Services Europe s.r.o., Stráž nad Nisou, Czech Republic	100.0	€ million	5	1	10
Knorr-Bremse Services GmbH, Munich, Germany[1)]	100.0	€ million	8	(1)	108
Knorr-Bremse Sistemas para Veículos Comerciais Brasil Ltda., Itupeva, Brazil	100.0	€ million	42	11	72

1. Consolidated affiliated companies	Share of capital in %	Currency and unit	Equity	Income	Total assets
Knorr-Bremse Sistemas para Veículos Ferroviários Ltda., Itupeva, Brazil	100.0	€ million	16	6	25
Knorr-Bremse Sistemi per Autoveicoli Commerciali S.p.A., Arcore, Italy	100.0	€ million	10	4	32
Knorr-Bremse SteeringSystems GmbH, Munich, Germany	100.0	€ million	31	1	124
Knorr-Bremse System för Tunga Fordon AB, Malmö, Sweden	100.0	€ million	1	0	1
Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Munich, Germany[1)]	100.0	€ million	443	11	1,176
Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Munich, Germany[1)]	100.0	€ million	219	63	1,469
Knorr-Bremse Systemes Ferroviaires S.A., Tinqueux, France	100.0	€ million	12	5	36
Knorr-Bremse Systèmes pour Véhicules Utilitaires France S.A.S., Lisieux, France	100.0	€ million	44	22	110
Knorr-Bremse Systems for Commercial Vehicles India Pvt. Ltd., Pune, India	100.0	€ million	9	(6)	74
Knorr-Bremse Systems for Commercial Vehicles (Chongqing) Ltd., Chongqing, China	66.0	€ million	26	5	60
Knorr-Bremse Systems for Commercial Vehicles (Suzhou) Co., Ltd., Suzhou, China	100.0	€ million	3	0	14
Knorr-Bremse Systems for Commercial Vehicles Ltd., Bristol, United Kingdom	100.0	€ million	33	7	55
Knorr-Bremse Systems for Rail Vehicles Enterprise Management (Beijing) Co., Ltd., Beijing, China	100.0	€ million	3	1	14
Knorr-Bremse Systems for Rail Vehicles Kazakhstan Limited Liability Partnership, Astana, Republic of Kazakhstan	100.0	€ million	3	1	5
Knorr-Bremse Systems for Rail Vehicles (Suzhou) Co., Ltd., Suzhou, China	100.0	€ million	224	139	504
Knorr-Bremse Systemy Kolejowe Polska Sp. z o.o., Krakow, Poland	100.0	€ million	14	5	31
Knorr-Bremse Systemy Pojazdów Szynowych Spoółka z Organiczoną Odpowiedzilnością, Krakow, Poland	100.0	€ million	56	(11)	104
Knorr-Bremse Systémy pro užitková vozidla ČR s.r.o.,Stráž nad Nisou, Czech Republic	100.0	€ million	33	4	99
Knorr-Bremse Technology Center India Pvt. Ltd., Pune, India	100.0	€ million	21	6	55
Knorr-Bremse Ticari Arac Fren Sistemieri Limited Sirketi, Istanbul, Turkey	100.0	€ million	3	2	4
Knorr-Bremse Vasúti Jármű Rendszerek Hungária Kft., Budapest, Hungary	100.0	€ million	68	21	188
Merak Jinxin Air Conditioning Systems (Wuxi) Co., Ltd., Wuxi, China	51.0	€ million	14	3	83
Merak North America LLC, Westminster, Maryland, USA	100.0	€ million	(21)	(1)	20
Microelettrica Heine (Suzhou) Co., Ltd., Suzhou, China	100.0	€ million	7	2	13
Microelettrica Power (Pty.) Ltd., Johannesburg, South Africa	74.0	€ million	4	1	7
Microelettrica Scientifica (Pty.) Ltd., Johannesburg, South Africa	100.0	€ million	1	0	2
Microelettrica Scientifica S.p.A., Buccinasco, Italy	100.0	€ million	34	11	86
Microelettrica-USA LLC, Randolph, New Jersey, USA	100.0	€ million	3	0	13
New York Air Brake LLC, Watertown, New York, USA	100.0	€ million	95	4	234
PleaseFix GmbH, Munich, Germany[3)]	100.0	€ million	(1)	(1)	0
Railnova SA, Brussels, Belgium[3)]	100.0	€ million	9	0	11
Selectron Systems AG, Lyss, Switzerland	100.0	€ million	40	14	84
Selectron Systems Italia S.A.R., Venice, Italy[2)]	100.0	€ million	-	-	-
Selectron Systems (Beijing) Co., Ltd., Beijing, China[2)]	100.0	€ million	2	(0)	4
Semiconductor Solutions (Pty.) Ltd., Pretoria, South Africa	100.0	€ million	3	1	3
Skach Ges.m.b.H., Mödling, Austria[1)]	100.0	€ million	0	-	1
Technologies Lanka Inc., La Pocatière, Québec, Canada	100.0	€ million	12	3	16

1. Consolidated affiliated companies	Share of capital in %	Currency and unit	Equity	Income	Total assets
Unicupler GmbH, Niederurnen, Switzerland	100.0	€ million	4	0	4
Zelisko Elektrik Sanayi ve Ticaret Limited Şirketi, Istanbul, Turkey	100.0	€ million	2	1	4
2. Proportionately consolidated companies					
Sentient IP AB, Göteborg, Sweden	50.0	€ million	0	0	0

3. Associated companies valued using the equity method	Share of capital in %	Currency and unit	Equity	Income	Total assets
Alltrucks GmbH & Co. KG, Munich, Germany (general partner is Alltrucks Verwaltungs GmbH, Munich, Germany[4)5)6)]	33.3	€ million	1	(0)	2
Alltrucks Verwaltungs GmbH, Munich, Germany[4)5)6)]	33.3	€ million	0	0	0
Kiepe Electric GmbH, Düsseldorf, Germany[4)5)]	15.0	€ million	51	1	236
Knorr-Bremse DETC Commercial Vehicle Braking Systems (Shiyan) Co., Ltd., Shiyan, China[4)6)]	49.0	€ million	3	0	45
Nexxiot AG, Zürich, Switzerland[4)5)6)]	32.9	€ million	13	(37)	75
Shanghai Bobang Automotive Technology Co., Ltd., Shanghai, China[4)6)8)]	13.1	€ million	16	1	28

4. Non-consolidated affiliated companies	Share of capital in %	Currency and unit	Equity	Income	Total assets
BCVS Mexican Holdings LLC, Avon, Ohio, USA[7)]	100.0	€ million	-	-	-
Di-Pro LLC., Avon, Ohio, USA[7)]	100.0	€ million	-	-	-
EKA DOOEL, Skopje, North Macedonia[6)]	100.0	€ million	1	0	1
Knorr-Bremse Investment UK Ltd., Chippenham, United Kingdom[5)6)]	100.0	€ million	27	43	27

5. Associated companies and other investments not valued according to the equity method	Share of capital in %	Currency and unit	Equity	Income	Total assets
AutoBrains Technologies Ltd., Tel Aviv-Yafo, Israel[5)6)]	5.5	€ million	74	(5)	78
IFB Institut für Bahntechnik GmbH, Berlin, Germany[6)8)]	6.7	€ million	2	0	6
Rail Vision Ltd., Raanana, Israel[4)5)6)]	6.1	€ million	3	(10)	6
Shenzhen SF-Trailernet Technology Co., Ltd., Shenzhen, China[6)]	14.3	€ million	0	(0)	0

1) Profit and loss transfer agreement
2) The companies are included in a Group division of Selectron Systems AG, Lyss, Switzerland.
3) The companies were consolidated for the first time in 2024. the statements of income were taken into consideration proportionally for the current year
4) The company was consolidated at equity
5) Values refer to the 2023 fiscal year
6) Values determined in accordance with national GAAP
7) No annual financial statements available yet
8) Significant influence due to 20% share of voting rights on the company’s board

Unless otherwise stated, the above amounts to equity, income and total assets are calculated in accordance with IFRS as they were determined for the purpose of preparing the consolidated financial statements of Knorr-Bremse AG.

I. Segment Information

I.1. Basics of segmentation

Table → 3.94

3.94 INFORMATION ON REPORTABLE SEGMENTS

in € million	Reportable segments: Rail Vehicle Systems	Reportable segments: Commercial Vehicle Systems	Reportable segments: TOTAL	Other segments and consolidation	Group
					2024 fiscal year
External revenues	4,043	3,840	7,883	(0)	7,883
Intersegment revenues	1	2	3	(3)	–
Segment revenues	**4,044**	**3,842**	**7,886**	**(3)**	**7,883**
Earnings before interest and taxes (EBIT)	**625**	**350**	**975**	**(64)**	**911**
M&A activities	8	18	26	–	26
Restructuring expenses	1	17	18	–	18
Expenses and income from one-off effects, for example in connection with litigation	(4)	16	12	–	12
Operating EBIT	**630**	**401**	**1,031**	**(64)**	**966**
Share of profit or loss from companies accounted for using the equity method	(16)	0	(16)	0	(16)
Net working capital	923	376	1,299	(3)	1,296
Capital expenditure (before IFRS 16 and acquisitions)	138	199	337	13	350
					2023 fiscal year
External revenues	3,747	4,179	7,926	(0)	7,926
Intersegment revenues	1	1	2	(2)	–
Segment revenues	**3,748**	**4,180**	**7,928**	**(2)**	**7,926**
Earnings before interest and taxes (EBIT)	**532**	**398**	**930**	**(60)**	**870**
M&A activities	2	4	6	–	6
Restructuring expenses	–	6	6	–	6
Expenses and income from one-off effects, for example in connection with litigation	2	9	11	–	11
Operating EBIT	**536**	**417**	**953**	**(60)**	**893**
Share of profit or loss from companies accounted for using the equity method	(23)	3	(20)	–	(20)
Net working capital	**752**	**377**	**1,129**	**2**	**1,131**
Capital expenditure (before IFRS 16 and acquisitions)	**116**	**241**	**357**	**11**	**368**

The Group has two reportable segments, which are the Group's divisions, as described below. The divisions offer different products and services and are managed separately as they require different technology and marketing strategies.

In the Rail Vehicle Systems (RVS) segment, the company plays a key role in the development, production, sale, and service of modern braking systems and further subsystems for rail vehicles. The product portfolio includes braking systems, entrance systems, HVAC systems, sanitary systems, coupling systems, a portfolio of digital solutions and smart services for optimizing rail transportation, power electrics, rail computing and communication systems, signaling technology (control, command, and signaling; CCS) stationary and mobile testing equipment, wiper and wash systems and extensive aftermarket solutions (RailServices).

The Commercial Vehicle Systems (CVS) segment is also characterized by the development, production, sale, and service of modern braking systems. The product portfolio includes, among other things, pneumatic braking systems (i.e., brake control systems, disk brakes, drum brakes, brake cylinders, valves and pedal units) and steering systems, vehicle dynamics solutions (i.e., anti-lock braking systems and electronic stability programs), driver assistance systems (e.g., emergency braking systems), electronic leveling control, energy supply and distribution systems, including compressors and air treatment, products for boosting fuel efficiency such as engine components and transmission control systems (i.e., vibration dampers, engine air management, transmission control, and gear/clutch actuation) and trailer and aftermarket solutions.

Other business areas mainly include leasing, holding, and logistics activities as well as media and IT services.

For each segment, the Group's Executive Board reviews internal management reports on a monthly basis.

Transfer prices between the segments are determined on an arm's length basis.

I.2. Information on reportable segments

The Executive Board of Knorr-Bremse, as the Chief Operating Decision Maker, allocates resources to the Group's business segments and regularly assesses their profitability. Reporting by business segment thus retrospectively reflects the Group's internal reporting and management structure.

Information regarding the results of each reportable segment is given below. The operating EBIT of a segment before tax is used to measure profitability, as the Executive Board believes that this is the most relevant information for assessing the results of the individual segments in relation to other industry companies.

Internal management and reporting at Knorr-Bremse is generally based on IFRS, as applied within the Group. The consolidated earnings figure used in internal management and reporting is operating EBIT. The operating EBIT is the Group's EBIT adjusted for material individual items. When calculating the operating EBIT, income and expenses are adjusted if their amount and the frequency of their occurrence hinder or distort the assessment of Knorr-Bremse's operating profitability.

Operating EBIT in the Rail Vehicle Systems segment was € 630 million. The reported EBIT of € 625 million was adjusted in particular for € 8 million depreciation from purchase price allocation in connection with the acquisition of KB Signaling. This stood against an adjustment for an off-period income of € 4 million in connection with customer contracts. In the previous year, the operating EBIT had been calculated by adjusting mainly for expenses in connection with expected expenditure of € 14 million for voluntary non-warranty remedies in Asia, offset by income of € 12 million from the reversal of write-downs in connection with the withdrawal from the Russian market.

Operating EBIT in the Commercial Vehicle Systems segment was € 401 million. The reported EBIT of € 350 million was adjusted in particular for impairments of € 18 million for the planned disposal of GT Emissions Systems. In addition, there were adjustments for € 17 million of expenses in connection with restructuring (including restructuring consultancy services and severance payments) and € 16 million in connection with an off-period recall campaign associated with a software update in the North American market. In the previous year, expenses from write-downs of € 8 million had primarily been disclosed in connection with the withdrawal from the Russian market, and expenses in connection with the merger of companies in Japan (€ 6 million) and losses on disposal in North America in connection with M&A activities (€ 4 million) had been adjusted.

Revenues within the segment are presented on a pre-consolidated basis. Internal reporting does not contain any segment-specific information on assets and liabilities with the exception of net working capital, which is defined in Chapter F.9.7.

I.3. Geographical information

The following table shows the Group's sales revenues and non-current assets, broken down by country of domicile of the Group company. Table → 3.95, 3.96

3.95 REVENUES BY REGION

in € million	2024	2023
Europe/Africa	**3,751**	**3,886**
of which		
Germany	1,694	1,964
Austria	453	417
Spain	330	282
Hungary	46	45
North America	**1,987**	**1,993**
of which USA	1,903	1,914
South America	**176**	**149**
Asia-Pacific	**1,969**	**1,898**
of which China	1,188	1,124
	7,883	**7,926**

3.96 NON-CURRENT ASSETS BY REGION

in € million	2024	2023
Europe/Africa	**1,620**	**1,587**
of which		
Germany	923	896
Hungary	174	162
Spain	168	178
Austria	65	60
North America	**851**	**678**
of which USA	770	591
South America	**24**	**29**
Asia-Pacific	**338**	**340**
of which China	144	144
	2,834	**2,634**
Goodwill	**883**	**696**
of which Rail Vehicle Systems (Global)	409	221
of which Commercial Vehicle Systems (Global)	474	475
	3,717	**3,330**

Non-current assets consist of property, plant, and equipment, goodwill, and other intangible assets.

Neither division is significantly dependent on external third parties. Neither in the year under review nor in the previous years did the Company generate more than 10% of its sales with one customer.

Goodwill is recognized globally at the level of the two segments. Please refer to chapter F.2. for details on goodwill.

J. Group Association and Disclosure

Knorr-Bremse AG is included in the consolidated financial statements of Stella Vermögensverwaltungs-GmbH, Oberhaching, Germany, as of December 31, 2024 (largest and smallest group of companies).

The consolidated financial statements of Knorr-Bremse AG are published in the trade register and in the commercial register of the District Court of Munich, Germany. The following subsidiaries are exempt from the obligation to prepare notes and management commentary under section 264 (3) HGB and from the audit and disclosure obligations under section 325 HGB:

- Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Munich, Germany
- Knorr-Bremse Systeme für Nutzfahrzeuge GmbH, Munich, Germany
- Knorr-Bremse Services GmbH, Munich, Germany
- EVAC GmbH, Wedel, Germany
- Hasse & Wrede GmbH, Berlin, Germany

K. Declaration of Compliance with the German Corporate Governance Code

The German Corporate Governance Codex includes regulations and recommendations for responsible management and controlling of publicly traded companies. The executive board and supervisory board of publicly traded joint stock companies are obligated under section 161 AktG to declare once annually that the recommendations of the German Corporate Governance Codex governmental commission have been fulfilled and will be fulfilled, or which recommendations have not been or will not be applied. In the latter case, justifications must be provided for why the respective recommendation was not and will not be fulfilled.

The Executive Board and Supervisory Board of Knorr-Bremse AG submitted the declaration of compliance with the German Corporate Governance Code pursuant to section 161 AktG on December 11, 2024. The declaration is publicly accessible on our website: Knorr-Bremse/Investor Relations/Corporate Governance/Declaration of conformity/DCGK Declaration of compliance December 2024.

Munich, March 20, 2025

Knorr-Bremse AG

Executive Board

MARC LLISTOSELLA **DR. NICOLAS LANGE** **DR. CLAUDIA MAYFELD** **BERND SPIES** **FRANK MARKUS WEBER**

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Group, and the Group management report includes a fair view of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Munich, March 20, 2025

Knorr-Bremse AG

Executive Board

MARC LLISTOSELLA **DR. NICOLAS LANGE** **DR. CLAUDIA MAYFELD** **BERND SPIES** **FRANK MARKUS WEBER**

Independent Auditor's Report

To Knorr-Bremse Aktiengesellschaft, München

Report on the Audit of the Consolidated Financial Statements and of the Group Management Report

Opinions

We have audited the consolidated financial statements of Knorr-Bremse Aktiengesellschaft, Munich, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31. December 2024, and the consolidated statement of income, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 1. January to 31. December 2024, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the management report on the Company and the Group (hereinafter the "group management report") of Knorr-Bremse Aktiengesellschaft for the financial year from 1. January to 31. December 2024.

In accordance with German legal requirements, we have not audited the content of those components of the group management report specified on the "Other Information" section of our 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 IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31. December 2024, and of its financial performance for the financial year from 1. January to 31. December 2024, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group 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 opinion on the group management report does not cover the content of those components of the group management report specified in the "Other Information" section of 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 group management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group 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 [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements and of the Group 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 evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group 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 1. January to 31. December 2024. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Acquisition of Alstom Signaling Inc

Please refer to the disclosures in the notes to the consolidated financial statements, Sections "C. Consolidation (subsection C.1 Principles of consolidation)" and "D. Notes on Accounting Policies" for more information on the accounting policies applied.

Further explanatory notes on the acquisition of Alstom Signaling Inc., West Henrietta, New York/USA, which was renamed KB Signaling Inc. at the time of closing, can be found in section "C.3. Changes to the Group" in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

On 30. August 2024, Knorr-Bremse Group acquired the KB Signaling subgroup, which consists of three companies. The purchase price amounted to EUR 621 million. Taking into account the acquired net assets of EUR 425 million EUR, goodwill amounts to EUR 196 million.

Pursuant to IFRS 3, the identifiable assets acquired and liabilities assumed are generally recognised at fair value on the date of acquisition. Knorr-Bremse Group consulted an external expert to determine and measure the identifiable assets acquired and liabilities assumed.

The identification and measurement of assets acquired and liabilities assumed is complex and based on assumptions of the management board that require judgement. The main assumptions concern revenue planning and margin performance of the acquired business operations, the licence fees used and the cost of capital.

There is the risk for the consolidated financial statements that the assets acquired and liabilities assumed are identified improperly or measured inaccurately.

OUR AUDIT APPROACH

With the involvement of our valuation experts, we also assessed the appropriateness of significant assumptions as well as the identification and calculation methods used. To that end, we first gained an understanding of the acquisition by consulting employees of the finance and M&A departments and by evaluating the relevant contracts.

We reconciled the total purchase price with the underlying purchase agreement and proof of payment.

We assessed the competence, professional skills and impartiality of the independent expert engaged by Knorr-Bremse Group. Furthermore, we assessed the process of identification of assets acquired and liabilities assumed for compliance with the requirements of IFRS 3 based on our knowledge of KB Signaling's business model. We investigated the valuation methods used for their compliance with the accounting policies.

We discussed projected revenue and margin development with those responsible for planning. Furthermore, we reconciled this information with the budget prepared by management and approved by the supervisory board and assessed the consistency of the assumptions with external market assessments. We have evaluated the license rates and other input parameters applied in the measurement of intangible assets using standard plausibility checks. We compared the assumptions and data underlying the cost of capital, in particular the risk-free rate, the market risk premium and the beta coefficient, with our own assumptions and publicly available data.

To assess computational accuracy, we verified selected calculations based on risk criteria.

OUR OBSERVATIONS

The approach used for identifying and measuring the assets acquired and liabilities assumed is appropriate and in line with the accounting policies to be applied. The key assumptions and data are appropriate and they are completely and properly presented in the notes to the consolidated financial statements.

Revenue recognition in project business in accordance with IFRS 15

Please refer to the disclosures in the notes to the consolidated financial statements, Sections "B. Accounting Standards" and "D. Notes Accounting Policies (subsection D.1. Revenues)" for more information on the accounting policies applied.

Further explanatory notes can be found in section "E.1. Revenues" in the notes to the consolidated financial statements.

THE FINANCIAL STATEMENT RISK

The Group's revenue amounted to EUR 7,883 million in the 2024 financial year, of which EUR 4,044 million was reported in the Rail Vehicles segment. A significant portion of revenue from the Rail Vehicles segment amounting EUR 1,025 million is attributable to project business in the OE-business of the segment. In this business, agreements on the design, production and supply of braking systems with a precisely defined functionality for a specific number of train or locomotives are considered as an inseparable performance obligation. This is because the development services cannot be separated from other services, meaning that they form one unit. Comparable structures are found in projects with door systems and air conditioning systems.

Revenue in the project business is recognized over time according to the stage of completion. The stage of completion is determined on the basis of the ratio of costs incurred to the estimated total project costs (input-based method).

The determination of revenue to be recognized is complex and is based on estimates, particularly with regard to the total project costs and the determination of the stage of completion. There is a risk for the consolidated financial statements that the stage of completion is incorrectly estimated and that revenue is therefore incorrectly accrued as at the reporting date (including the possible risk of management override of controls) and that both revenue and the result from these services are therefore allocated to the wrong financial year.

OUR AUDIT APPROACH

Based on our understanding of the process, we assessed the design and implementation of selected internal controls, in particular with regard to the initial estimation and event-driven updates of total project costs.

We assessed the instructions of the groupwide accounting policy in regards to IFRS 15. Using a riskbased selection of contracts, we assessed the proper implementation of the accounting policy. We compared the planned total revenues with the relevant contract documents. For contracts deliberately selected on a risk-oriented basis, we asked the respective project managers about their assessment of the total project costs. In this context, we tested the assumptions used to estimate the total project costs using internal cost calculations and external evidence. In addition, we analyzed changes to the estimate of the total project costs for risk-oriented selected contracts.

We examined the accuracy of the Company's estimates to date by comparing cost estimates for completed contracts with the actual costs incurred for these contracts and analyzed deviations.

Furthermore, we computationally verified the stage of completion determined according to the ratio of costs actually incurred to the expected total costs.

OUR OBSERVATIONS

The approach taken by the Knorr-Bremse Group for revenue recognition cut-off in terms of properly estimating the stage of completion in the Rail Vehicles Systems segment for revenue recognized over time according to IFRS 15 is appropriate. The assumptions underlying revenue recognition are reasonable.

Other Information

Management and/or supervisory board are/is responsible for the other information. The other information comprises the following components of the group management report, whose content was not audited:

- the group non-financial statement, included in section “Group Sustainability Statement” of the group management report,
- the combined corporate governance statement for the Company and the Group referred to in the group management report,
- information extraneous to management reports and marked as unaudited.

The other Information includes also the remaining parts of the annual report. The other Information does not include the consolidated financial statements, the group management report information audited for content and our auditor’s report thereon.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the above-mentioned other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report information audited for content or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

In accordance with our engagement, we have performed a separate assurance engagement on the non-financial statement. With regard to the nature, scope and results of this assurance engagement, we draw attention to our assurance report dated 20. March 2025.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs 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, management is 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, management is 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, management is responsible for the preparation of the group 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, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group 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 group 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 group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group 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 group 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 opinions on the consolidated financial statements and on the group 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) 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 group 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 group 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 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 control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's 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 group management report or, if such disclosures are inadequate, to modify our respective 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 IFRSs as adopted by the EU and 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 opinions on the consolidated financial

statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the group 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 management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management 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 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 also 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 of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Report on the Assurance on the Electronic Rendering of the Consolidated Financial Statements and the Group Management Report Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB

We have performed assurance work in accordance with Section 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the electronic files „KB AG Konzernnotes 2024 FINAL.zip" (SHA256-Hashwert: 4971fae1e7ac7dd53250bb242bdba0da83d584c4138993a5f899a6e78bb9ee08) „Knorr-Bremse AG zusammengefasster Lagebericht 2024.xhtml" (SHA256-Hashwert:65b19ab764a2b372f9b2c6adca8c257314846af315a73635b53436d76a323954) made available and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the electronic file made available, identified above and prepared for publication purposes complies in all material respects with the requirements of Section 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the financial year from 1. January to 31. December 2024 contained in the "Report on the Audit of the Consolidated Financial Statements and the Group Management Report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file made available and identified above in accordance with Section 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Section 317 (3a) HGB (IDW AsS 410 (06.2022)). Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in Audit Firms (IDW QMS 1 (09.2022)).

The Company's management is responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Section 328 (1) sentence 4 item 1 HGB and for the tagging of the consolidated financial statements in accordance with Section 328 (1) sentence 4 item 2 HGB.

In addition, the company's management is responsible for such internal control 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 of Section 328 (1) HGB for the electronic reporting format.

The supervisory board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

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 judgement and maintain professional scepticism throughout the assurance work. 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 assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance 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 made available containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, as amended as at the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents provide an XHTML rendering with content equivalent to the audited consolidated financial statements and the audited group 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, as amended as at the reporting date, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 30. April 2025. We were engaged by the supervisory board on 5. August 2025. We have been the group auditor of Knorr-Bremse Aktiengesellschaft without interruption since the financial year 2018.

We declare that the 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 group management report as well as the examined ESEF documents. The consolidated financial statements and group management report converted to the ESEF format – including the versions to be entered in the company register – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the examined ESEF documents made available in electronic form.

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Michael Mokler.

Munich, 20. March 2025
KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by]

gez. Huber-Straßer	gez. Mokler
Wirtschaftsprüferin	Wirtschaftsprüfer

04

Compensation Report

Compensation Report

Introduction

This compensation report explains the principles of the compensation systems for the Executive Board and Supervisory Board of Knorr-Bremse AG and the compensation granted and owed within the meaning of section 162 (1) sentence 1 AktG to the current and former members of the Executive Board and Supervisory Board, in each case relating to the 2023 fiscal year (January 1 to December 31, 2024).

With effect from January 1, 2024, the provisions of the incentive architecture (STI, LTI) were amended and supplemented by malus and clawback arrangements, which will be gradually implement in the service agreements of the Executive Board members. The necessary amendments of the compensation system were approved by the Annual General Meeting on April 30, 2024, with a majority of 94.69% of the votes cast. Where relevant, these amendments are described in detail below and also in the invitation to the aforementioned Annual General Meeting.

This compensation report consistently discloses the compensation granted and owed in accordance with section 162 (1) sentence 2 no. 1 AktG for the fiscal year in which the underlying work (one or more years) was completed in full. For the variable compensation components, the compensation subtargets and the calculation of the actual target achievement are presented and described in detail.

The compensation report was jointly prepared by the Executive Board and the Supervisory Board. It was reviewed with regard to form and content by KPMG AG Wirtschaftsprüfungsgesellschaft above and beyond the requirements of section 162 (3) AktG. The auditor’s report is included in the 2024 compensation report.

This compensation report is planned to be presented for approval at the Annual General Meeting on April 30, 2025.

Overview of the fiscal year

Business

The Executive Board of Knorr-Bremse AG is very satisfied with the business performance in 2024, a year which was marked by a further decrease in inflation and by geopolitical challenges.

Consolidated revenues fell by a slight 0.5% compared with the previous year (€ 7,926 million) to € 7,883 million due to the sale of the Kiepe Group and the strained situation on the commercial vehicle market. Reported EBIT came in at € 911 million, up a moderate 4.7% on the prior-year figure (€ 870 million). Free cash flow amounted to € 730 million and was therefore significantly higher than in the previous year (€ 552 million).

The Rail Vehicle Systems division saw a solid year-over-year increase in revenues of 7.9% to € 4,044 million (2023: € 3,748 million). The rise in revenues was primarily due to significantly increased aftermarket business in all regions as well as significant OE business growth in North America. Revenues of the Commercial Vehicle Systems division, at € 3,842 million, were down a moderate € 338 million year over year (previous year: € 4,180 million). This decline is mainly due to lower truck production in Europe, Asia, and North America as well as significantly diminishing OE business, while aftermarket revenues remained slightly above the prior-year level.

Executive Board

The composition of the Executive Board of Knorr-Bremse AG did not change in the 2024 fiscal year.

Supervisory Board

Having reached retirement age, Mr. Michael Jell stepped down as a member of the Supervisory Board of Knorr-Bremse AG at the close of June 30, 2024. He is replaced by Mr. Thomas Mittmann, who was elected by the employee representatives to take office as of July 1, 2024.

Executive Board compensation

Description of the compensation system

The system of compensation for Executive Board members in the version applicable since January 1, 2024, should be clear and understandable. It adheres to the specifications of the German Stock Corporation Act (AktG) as amended by the German Act on the Implementation of the Second Shareholders' Rights Directive of December 12, 2019 (Federal Gazette Part I 2019, no. 50 of December 19, 2019) and incorporates the recommendations of the German Corporate Governance Code (**GCGC**).

The remuneration system of the Executive Board members is composed of fixed and variable components. The fixed components of the Executive Board members' remuneration are the fixed annual salary, fringe benefits, and pension contribution. The variable components are the short-term variable remuneration (short-term incentive, **STI**) and long-term variable remuneration (long-term incentive, **LTI**). The remuneration system also provides for Share Ownership Guidelines ("**SOG**") for the Executive Board members. An overview of the compensation system is provided in the table below: **Fig. 1**

FIG. 1 OVERVIEW OF THE COMPENSATION SYSTEM IN 2024

Compensation components	Assessment base/parameters	
Non-performance-related components		
Fixed annual salary	- Fixed, contractually agreed remuneration paid in twelve monthly installments	
Fringe benefits	- Mainly private usage of the company car, possibly with the services of a driver, insurance policies (accident, D&O), reimbursement of the employer share in health and long-term care insurance	
Pension contribution	- Annual payment for retirement benefit purposes - Aside from this, no company pension scheme is provided.	
Performance-related components		
Short-term variable remuneration (STI)	Plan type	- Target bonus
	Limitation of payment amount	- 200% of the target amount
	Performance criteria	- EBIT* (35%) - Revenues* (20%) - Free cash flow* (15%) - ESG* (20%) ("ESG STI") - Quality (10%) - Modifier (0.8–1.2) to reflect the individual and collective performance of the Executive Board, in addition to stakeholder
	Payout	- In the month following approval of the consolidated financial statements for the fiscal year
Long-term variable remuneration (LTI)	Plan type	- Performance share plan
	Limitation of payment amount	- 200% of the target amount
	Performance criteria	- Return on Capital Employed – ROCE* (30%) - ESG* (20%) ("ESG LTI") - Relative Total Shareholder Return – TSR (50%) - Benchmarked against selected companies in the industrial goods peer group and selected rail and truck peers
	Payout	- Month following approval of the consolidated financial statements for the final fiscal year in the 4-year performance period
Other		
Share ownership obligation	- Obligation to buy shares in Knorr-Bremse AG in an amount equivalent to one gross fixed annual salary within four years and to hold them for the duration of the appointment to the Executive Board	
Payments upon taking position:	- If applicable, compensation payments upon taking office - If applicable, relocation benefits	
Malus and clawback	- Possibility to reduce ("malus") or claw back variable remuneration in cases of compliance breaches or in the event of a retrospective correction of objectively erroneous consolidated financial statements with relevance for variable compensation	

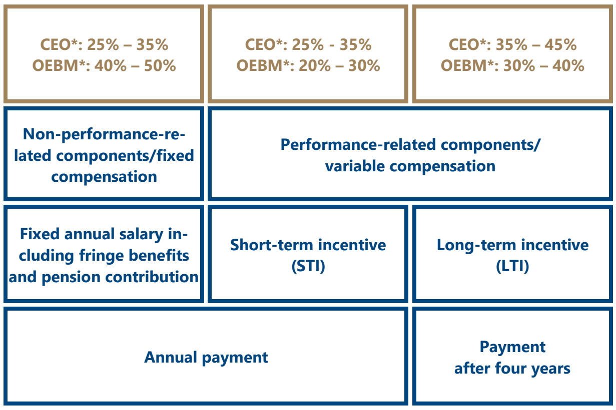
* Measurement of achievement of subtargets EBIT, revenues, free cash flow, ESG STI, ESG LTI and ROCE is based on the actual values in the approved and audited consolidated financial statements (where available). Here, the Supervisory Board is entitled to use its discretion to subtract unbudgeted extraordinary influences based on a list of criteria defined in advance by the Audit Committee. The aim of these adjustments is to measure the actual management performance of the Executive Board without distortion, such as by currency effects or effects of M&A activities.

Target compensation and compensation structure

On the basis of the compensation system the Supervisory Board defines a specific target total compensation for each Executive Board member, which should be in appropriate relation to the tasks and performance of the Executive Board member and the company's situation and should not exceed standard compensation without justification. The Supervisory Board regularly reviews the Executive Board compensation to ensure it is appropriate and in line with the market. The regular review of compensation takes place as a comparison with companies in the DAX, MDAX and selected companies from the industrial goods peer group as well as selected rail and truck peers (horizontal comparison). A vertical comparison is also carried out, which considers the Executive Board compensation in relation to the employees at other levels of the Knorr-Bremse Group in Germany. Based on the results of the regular review of Executive Board compensation, which was most recently conducted in January 2025 with external oversight, the Supervisory Board considers that the compensation is in line with the market and appropriate.

The Supervisory Board also regularly reviews the compensation structure of the Executive Board members in order to incentivize the company's long-term performance. The target total remuneration comprises the sum of all remuneration components relevant for total remuneration. In the case of the STI and LTI, the target amount is in each case based on 100% target achievement. Long-term variable compensation accounts for a larger proportion of the target total compensation than the short-term variable compensation. The relative proportions of fixed and variable compensation are shown below on the basis of the target total compensation. **Fig. 2**

FIG. 2 STRUCTURE OF COMPENSATION ELEMENTS



* CEO = Chief Executive Officer / OEBM = Ordinary Executive Board member

The target compensation of the Executive Board members active in 2024 is presented in the following table: **Table → 4.01**

4.01 TARGET COMPENSATION OF EXECUTIVE BOARD MEMBERS

	Marc Llistosella Chief Executive Officer (CEO) (since January 1, 2023)			Frank Markus Weber Chief Financial Officer (CFO) (since July 1, 2020)			Dr. Claudia Mayfeld Executive Board Member for Integrity, Legal Affairs and HR (since May 1, 2021)		
in € thousand	2024	In %	2023	2024	In %	2023	2024	In %	2023
Base remuneration	1,000	24	1,000	900	31	900	900	35	900
Fringe benefits	28	1	45	27	1	13	33	1	19
Pension contribution	300	7	300	300	10	300	267	10	200
One-year variable compensation (STI)									
STI 2024	1,300	31	–	750	26	–	600	23	–
STI 2023	–	–	1,300	–	–	675	–	–	600
Multi-year variable compensation (LTI)									
LTI 2024-2027	1,500	36	–	900	31	–	800	31	–
LTI 2023-2026	–	–	1,500	–	–	850	–	–	800
Total target compensation	**4,128**	**100**	**4,145**	**2,877**	**100**	**2,738**	**2,600**	**100**	**2,519**

	Bernd Spies Commercial Vehicle Systems division (since March 12, 2022)			Dr. Nicolas Lange Rail Vehicle Systems division (since October 1, 2023)[1]		
in € thousand	2024	In %	2023	2024	In %	2023
Base remuneration	900	34	880	833	32	200
Fringe benefits	28	1	16	35	1	5
Pension contribution	300	11	300	300	12	75
One-year variable compensation (STI)						
STI 2024	600	23	–	600	23	–
STI 2023	–	–	600	–	–	150
Multi-year variable compensation (LTI)						
LTI 2024-2027	800	30	–	800	31	–
LTI 2023-2026	–	–	800	–	–	200
Total target compensation	**2,628**	**100**	**2,596**	**2,568**	**100**	**630**

1) Target compensation for the 2023 fiscal year is shown pro rata temporis due to appointment in the course of the year.

Fixed compensation components

The compensation system for the Executive Board comprises the following fixed compensation components.

Annual salary

Executive Board members receive a fixed, non-performance-related annual salary, which is paid in 12 equal installments as a monthly salary.

Fringe benefits

In addition, Executive Board members receive fringe benefits. For each member of the Executive Board, the company bears, in particular, the costs of accident insurance for death or disability, the employer's contribution to private health and long-term care insurance, and a company car that can also be used privately, possibly with the services of a driver. Furthermore, Executive Board members are covered by a D&O liability insurance policy.

Pension contribution

For the purposes of an old-age pension, the Executive Board members receive an annual pension contribution, payable at the end of the fiscal year in question. Knorr-Bremse AG does not have any pension commitments to current members of the Executive Board.

Other

The Supervisory Board may, on a case-by-case basis, grant a payment on the occasion of a new Executive Board member taking up his or her position in the first or second year of the new member's appointment. This payment can be used to compensate for, for example, losses of variable remuneration that an Executive Board member faces from a former employer as a result of moving to Knorr-Bremse

AG. No such payments were pledged or made in 2024 fiscal year.

Variable compensation components

The variable performance-related compensation component consists of two elements: a short-term incentive (STI) and a long-term incentive (LTI).

STI

The STI **(Fig. 3)** is a performance-related bonus with a performance period of one year.

The STI ensures the variable compensation's strategic alignment by directly linking it to the financial performance criteria. Furthermore, the short-term variable remuneration is based on non-financial performance criteria. This supports the strategic development of the Group, which also includes social and environmental aspects and takes account of sustainable corporate development.

In the first step, the STI is dependent on financial performance criteria and the achievement of quality and ESG targets (collectively the "**company STI targets**"). In the second step, the Supervisory Board uses a modifier to reflect the individual performance of the Executive Board member, the collective performance of the Executive Board and the achievement of stakeholder targets.

The financial performance criteria for calculating the amount paid from the STI in the 2024 fiscal year were EBIT, with a weighting of 35%, revenues, with a weighting of 20%, and free cash flow, with a weighting of 15%. In addition, target achievement depended on the quality performance criterion, which accounted for 10%, and on internal ESG targets, which accounted for 20%.

The EBIT refers to the earnings before interest, before the other financial result, and before income taxes as recognized in the company's approved and audited consolidated financial statements. EBIT reflects the company's profitability and its value promise to continue delivering an excellent margin.

Revenues are the revenues recognized in the company's approved and audited consolidated financial statements. They are a core element of the profitable growth strategy, and of Knorr-Bremse AG's value promise to grow faster than the market.

Free cash flow is calculated by deducting disbursements for capital expenditure on property, plant, and equipment and intangible assets from the cash flow from operating activities, and by adding proceeds from the sale of property, plant, and equipment and intangible assets to the cash flow from operating activities.

The performance criteria "quality" focuses on operating activities in the divisions, with quality targets such as the "cost of poor quality" set for both divisions.

ESG targets are also included as a material non-financial performance criterion in the form of two internal criteria, each weighted at 50% ("**ESG criteria"**). The ESG criteria are, firstly, the company's own contribution to carbon neutrality, consisting of the sum of energy efficiency increases and internally generated solar power in relation to the Group's total energy demand, and, secondly, the development of workplace accidents per 200,000 hours of work. In contrast to the previous year, the company's relative positioning in the ESG ratings by the agencies ISS, S&P and Sustainalytics is no longer considered for the ESG targets.

The company STI targets were weighted depending on the responsibilities of each Executive Board member. For the central functions, this was either exclusively for the entire Group (Marc Llistosella, Frank Markus Weber and Dr. Claudia Mayfeld) or 50% for the entire Group and 50% for the segment for which the Executive Board member is responsible (Bernd Spies for Commercial Vehicle Systems and Dr. Nicolas Lange for Rail Vehicle Systems).

The Supervisory Board defines the targets for each fiscal year for the individual performance criteria EBIT, revenues and free cash flow, which are derived from the budget planning. For the quality performance criterion, the Supervisory Board defines a value for each subtarget that corresponds to target achievement of 100%. For the ESG performance criterion, the Supervisory Board defines values for the ESG criteria that correspond to target achievement of 100%, as well as a minimum value corresponding to target achievement of 0% and a maximum value corresponding to target achievement of 200%.

At the end of the fiscal year the total target achievement is measured on the basis of the target achievement for each performance criterion. To measure the target achievement for each of the performance criteria, the Supervisory Board compares the actual figure with the target figure (budget figure or defined value) for the respective fiscal year. The ratio of the actual figure to the target value (as a percentage) indicates the extent to which the targets have been met, and for the performance criteria EBIT, revenues, free cash flow and quality, results in the following target achievement as determined by the Supervisory Board, with target achievement between 0% (for achieving or coming in below the minimum value) and 200% (for achieving or exceeding the minimum value) interpolated on a straight-line basis.

Total target achievement is calculated with a slightly different weighting than in the previous year (EBIT x 30%, free cash flow x 20%) as follows:

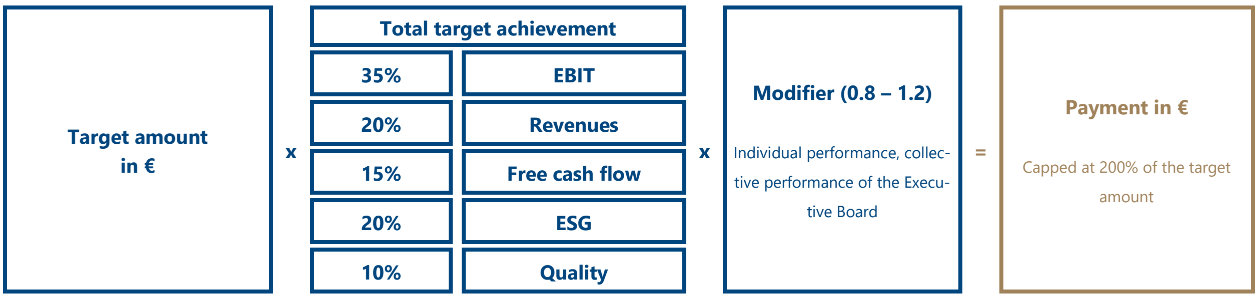
Total target achievement =
EBIT target achievement x 35%
\+ revenues target achievement x 20%
\+ free cash flow target achievement x 15%
\+ ESG target achievement x 20%
\+ quality target achievement x 10%

At the beginning of the year, in addition to the performance criteria, the Supervisory Board defines other non-financial performance criteria and their weightings, in order to assess the individual performance of the Executive Board member and the performance of the entire Executive Board and the achievement of stakeholder targets ("success criteria"). The individual performance criteria are taken into account by means of a modifier. This is set by the Supervisory Board at its discretion, depending on the extent to which the non-financial performance criteria are met.

The total target achievement measured on the basis of the financial performance criteria and the ESG targets is multiplied by the modifier (0.8 to 1.2) and the defined target amount (in euros) to produce the payment amount. In the 2024 fiscal year, the annual STI payment was capped at 200% of the target amount for all Executive Board members. The payout amount is due for payment in the month after the approval of Knorr-Bremse AG's consolidated financial statements for the fiscal year relevant for the STI.

Measurement of achievement of subtargets EBIT, revenues, free cash flow and ESG is based on the actual values in the consolidated financial statements (where available). Here, the Supervisory Board is entitled to use its discretion to subtract unbudgeted extraordinary influences based on a list of criteria defined in advance by the Audit Committee. The aim of these adjustments is to measure the *actual management performance* without distortion, such as by currency effects or M&A effects. For the past fiscal year, translational currency effects and effects from M&A and restructuring were adjusted in particular when determining STI target achievement on this basis, as quantified in Table → 4.02 below.

FIG. 3 HOW THE STI WORKS



The following performance criteria, target values and actual achievement figures were used to determine STI target achievement for the 2024 fiscal year **Table → 4.02, Table → 4.03**. The target values for the performance criteria were derived before the start of the 2024 fiscal year from the budget planning approved by the Supervisory Board. The capital market guidance for the 2024 fiscal year confirmed these targets. The out-performance of the guidance for free cash flow of €730 million versus € 552 million in the previous year and the further improvement in the operating EBIT margin to 12.3% compared with 11.3% in the previous year led to a correspondingly high target achievement in the EBIT and free cash flow performance criteria.

4.02 STI TARGET ACHIEVEMENT 2024 – EBIT, REVENUES, FREE CASH FLOW

Performance criterion	Executive Board member weighting	Floor	Target level	Maximum value	Actual value	Adjusted actual value	Target achievement
Group	Marc Llistosella: 100%						
EBIT (in € million)	Frank Markus Weber: 100%	815	906	997	911	991	193%
Revenues (in € million)	Dr. Claudia Mayfeld: 100%	7,352	7,684	7,850	7,883	7,776	155%
Free cash flow (in € million)	Bernd Spies: 50% Dr. Nicolas Lange: 50%	346	515	600	730	747	200%
Commercial Vehicle Systems							
EBIT (in € million)	Bernd Spies: 50%	374	415	457	350	403	71%
Revenues (in € million)		3,868	3,989	4,050	3,842	3,839	0%
Free cash flow (in € million)		214	250	268	282	305	200%
Rail Vehicle Systems							
EBIT (in € million)	Dr. Nicolas Lange: 50%	506	562	618	625	652	200%
Revenues (in € million)		3,485	3,695	3,800	4,044	3,939	200%
Free cash flow (in € million)		281	400	459	508	513	200%

4.03 STI TARGET ACHIEVEMENT 2024 – QUALITY AND ESG TARGETS

Performance criterion	Weighting	Floor	Target level	Maximum value	Actual value	Target achievement
Quality Commercial Vehicle Systems						
Cost of poor quality (in %)	60.0%	1.61	1.15	0.69	1.17	128%
Ready for assembly (in ppm)	8.0%	308	220	132	156	
Raw material (in ppm)	8.0%	3,360	2,400	1,440	1,788	
Functional test failures (in ppm)	8.0%	6,440	4,600	2,760	3,691	
Intercompany rejects (in ppm)	8.0%	42	30	18	16	
Zero mileage (in ppm)	8.0%	22	16	10	9	
Quality Rail Vehicle Systems						
Cost of poor quality (in %)	50.0%	1.68	1.20	0.72	0.97	163%
Supplied delivery quality (in ppm)	25.0%	1,295	925	555	704	
Delivery quality (in ppm of external delivery quantity)	25.0%	1,876	1,340	804	824	
ESG Group						
Own contribution to carbon neutrality (in GWh) (internal)	50.0%	2.60	6.50	9.50	11.65	172%
Workplace accidents per 200,000 contractual working hours (internal)	50.0%	1.04	0.80	0.56	0.69	
ESG Commercial Vehicle Systems						
Own contribution to carbon neutrality (in GWh) (internal)	50.0%	1.45	3.60	5.40	7.36	200%
Workplace accidents per 200,000 contractual working hours (internal)	50.0%	0.79	0.61	0.43	0.40	
ESG Rail Vehicle Systems						
Own contribution to carbon neutrality (in GWh) (internal)	50.0%	1.15	2.90	4.10	4.29	159%
Workplace accidents per 200,000 contractual working hours (internal)	50.0%	1.30	1.00	0.70	0.95	

The Supervisory Board assessed the individual performance of the Executive Board members, the collective performance of the Executive Board and the achievement of stakeholder targets. For the 2024 fiscal year, the Supervisory Board defined the following overarching objectives for the Executive Board in particular, which are weighted differently: successive implementation of the BOOST project with continuous reporting on financial and strategic effects in brownfield and greenfield; harmonization of operating and strategic financial planning into integrated financial planning; gradual realization of diversity targets for the management levels and the total workforce; execution of the implementation plan for the S4/HANA project, with the aim of maximum meaningful cross-divisional standardization; implementation of the strategic vision for the leadership culture through worldwide measures. On this basis, the Supervisory Board defined the individual modifier at its discretion for all Executive Board members as 1.0.

This resulted in the following (total) target achievement Table → 4.04 for the individual Executive Board members.

4.04 INDIVIDUAL STI TARGET ACHIEVEMENT 2024

Executive Board member	Target achievement: EBIT, revenues, free cash flow	Target achievement: quality	Target achievement: ESG targets	Modifier	Total target achievement
	70% weighting	10% weighting	20% weighting		
Marc Llistosella	184%	146%	172%	1.0	178%
Frank Markus Weber	184%	146%	172%	1.0	178%
Dr. Claudia Mayfeld	184%	146%	172%	1.0	178%
Bernd Spies	131%	137%	186%	1.0	143%
Dr. Nicolas Lange	192%	155%	165%	1.0	183%

LTI (description and award of the 2024-2027 tranche)
The LTI **(Fig. 2)** is a performance share plan in which virtual shares in Knorr-Bremse AG are awarded in annual tranches.

In order to link compensation to the company's long-term development, the long-term variable compensation makes up most of the variable compensation and thus a significant proportion of total compensation. With a performance period of four years and an annual award, it is intended to incentivize the beneficiaries to work for the company's positive long-term performance over multi-year cycles. A combination of internal and external performance criteria takes both the stakeholder and shareholder approach into account.

Each tranche of the performance share plan has a performance period of four years ("**performance period**"). Each performance period starts on January 1 of the first fiscal year in the performance period ("**award year**") and ends on December 31 of the third year following the award year.

At the beginning of the award year the Executive Board members are awarded a provisional number of virtual shares (performance share units), calculated using the ratio of the individual target amount agreement in the service agreement and the average XETRA closing price of the Knorr-Bremse AG share in the 60 exchange trading days before the first day of the award year.

At the end of the performance period, the target achievement for the LTI is measured and the payment amount is defined for each Executive Board member depending on the target achievement.

The relevant performance criteria for the performance share plan of the 2024–2027 tranche are the total shareholder return (**TSR**) of Knorr-Bremse AG compared with the TSR for selected companies from the industrial goods peer group and selected rail and truck peers ("**relative TSR**") and the return on capital employed ("**ROCE**"). This combines an internal financial performance criterion (ROCE) with an external capital market-based criterion (relative TSR). In addition, the ESG targets of Scope 1 + 2 reduction and employee satisfaction (**ESG**) are taken into account in the performance share plan as non-financial performance criteria. By contrast, the 2021–2024, 2022–2025 and 2023–2026 tranches are based on the performance criteria of relative TSR (compared with the average of the TSRs from three peer groups) and the performance of earnings per share (EPS), each with a weighting of 50%.

ROCE is the return on capital employed in percent as reported in the approved and audited consolidated financial statements of Knorr-Bremse AG, based on the reported EBIT and capital employed. Capital employed includes the sum total of intangible assets, net working capital, and property, plant, and equipment.

Target achievement for the ROCE performance criterion is measured by comparing the average ROCE for the performance period ("**actual average ROCE**") and the minimum value, target value and maximum value for the ROCE set by the Supervisory Board, with the minimum value corresponding to target achievement of 0%, the target value corresponding to target achievement of 100% and the maximum value corresponding to target achievement of 200%. The target achievement is interpolated on a straight-line basis in each case between the minimum value and the target value and between the target value and the maximum value.

The non-financial **ESG** performance criterion is formed of the ESG criteria of reduction of Scope 1 + 2 CO_2e emissions ("**Scope 1 + 2 reduction**"), weighted at 70%, and **employee satisfaction**, weighted at 30%. The applicable figures for the Scope 1 + 2 reduction are the CO_2e

emissions in tCO_2e as presented in the company's Group management report for the final year of the performance period. The applicable figure for employee satisfaction is the final engagement score, in index points, that was calculated during the performance period. The Supervisory Board sets a minimum value corresponding to 0% target achievement, a target value corresponding to 100% target achievement, and a maximum value corresponding to 200% target achievement for each ESG criterion for each performance period. The target achievement is interpolated on a straight-line basis in each case between the minimum value and the target value and between the target value and the maximum value. The Supervisory Board is authorized to swap the ESG criteria for future fiscal years in full or in part, to remove them, to add new ESG criteria, and to change the weighting of the ESG criteria.

The TSR refers to the share price performance, on the fictitious assumption that dividends are reinvested, and taking all capital measures into account. It indicates the increase in enterprise value from the perspective of the shareholders. To take into account the competitive position of Knorr-Bremse AG and incentivize the strategy of sustainable growth above the market average, the TSR of Knorr-Bremse AG is compared against selected, relevant, comparable companies from a peer group of companies in the industrial goods as well as rail and truck sectors ("**peer group**"). The following peer group companies are used for the LTI 2024–2027 tranche: Alfa Laval AB, Assa Abloy AB, Atlas Copco AB, Kone Oyi, Schindler Holding AG, Alstom SA, CAF, Stadler Rail AG, Talgo SA, Wabtec, Jost Werke SE, Daimler Truck, Paccar Inc, SAF Holland, Traton SE and Volvo AB.

To measure relative target achievement for the TSR of Knorr-Bremse AG in relation to peer group companies, the TSR ranking achieved by Knorr-Bremse AG within the peer group is determined. The relative ranking shows the target achievement, which is interpolated on a straight-line basis between 0% for the 25th percentile and 200% for the 75th percentile.

Total target achievement is calculated using the following formula:

Total target achievement =
ROCE target achievement x 30%
\+ ESG target achievement x 20%
\+ relative TSR target achievement x 50%

The final number of virtual shares is calculated by multiplying the number of virtual shares awarded by the total target achievement at the end of the performance period.

Final number of virtual shares =
number of virtual shares awarded
x total target achievement

The payment amount is then obtained by multiplying the final number of virtual shares by the average XETRA closing price for the company share in the last sixty exchange trading days before the end of the respective performance period.

The following performance criteria, target values, and actual achievement figures were used to determine LTI target achievement in the 2021–2024 LTI tranche, which will be paid out in April 2025. Table → 4.05, 4.06

For the 2024–2027 LTI tranche, the figures shown in Table → 4.07 represent the minimum, target and maximum values for ROCE, ESG and relative TSR.

In addition, Table → 4.08 shows the number of virtual shares awarded to each Executive Board member for the 2024–2027 LTI tranche.

As with the STI, the presentation of compensation granted and owed for Executive Board members in office in the reporting year is based on the vested amount. The compensation report for the fiscal year shows the tranche for which the underlying work (one or more years) has been completed in full in the reporting year. A newly awarded LTI tranche has therefore been shown at fair value in the compensation report for the award year as compensation granted and owed as of the end of the award year, because in accordance with the service agreement it was already vested in the first year of the performance period Table → 4.10. This does not affect the loss of vested rights for bad leavers. The compensation report for the final year of the relevant performance period then shows the difference between the originally recognized fair value and the actual payment amount below **(Fig. 4)**.

4.05 LTI TARGET ACHIEVEMENT 2021–2024

Award price 2021	in €	104.95
Award price 2024	in €	74.95
Strategic target EPS*	in €	4.08
Average actual EPS	in €	3.27
Achievement of average actual EPS	**in %**	**50.3**
Relative TSR target		50th percentile
Actual relative TSR		31.1th percentile
Relative TSR target achievement	**in %**	**62.6**
Payout ratio derived from total target achievement**	**in %**	**45.0**

* The strategic EPS target was adjusted in fiscal year 2021 due to Covid-19.
** Increase of the payout ratio to 45.0% due to extraordinary charges at the discretion of the Supervisory Board based on the compensation system approved by the Annual General Meeting on May 20, 2021.

4.06 INDIVIDUAL LTI TARGET ACHIEVEMENT 2021–2024

Executive Board member	Target amount (in € thousand)	Number of performance share units awarded	Fair value of performance share units awarded as of December 31, 2021 (in € thousand)	Number of final performance share units	Payment amount of final performance share units* (in € thousand)	Difference between fair value and payment amount (in € thousand)
Frank Markus Weber	800	7,623	652	4,795	360	-292
Dr. Claudia Mayfeld (from May 1, 2021)	533	5,082	434	3,197	240	-194
Former Executive Board members	**Target amount (in € thousand)**	**Number of performance share units awarded**	**Fair value of performance share units awarded as of December 31, 2021 (in € thousand)**	**Number of final performance share units**	**Payment amount of final performance share units* (in € thousand)**	**Difference between fair value and payment amount (in € thousand)**
Dr. Jürgen Wilder (until September 30, 2023)	800	7,623	652	4,795	360	-292
Dr. Peter Laier (until December 31, 2022)	800	7,623	652	4,795	360	-292
Dr. Jan Mrosik (until April 30, 2022)	1,500	14,239	1,193	8,990	675	-518

* The agreement for the maximum remuneration applicable for 2021 is complied with through the payment of LTI 2021–2024.

4.07 LTI TARGET 2024–2027

Performance criterion	Weighting	Floor	Target level	Maximum value
Relative TSR	50%	25th percentile	50th percentile	75th percentile
ROCE	30%	17%	20%	23%
Scope 1+2 reduction in tCO_2e	14%	48,200	43,800	39,200
Employee satisfaction	6%	65	71	74

4.08 LTI AWARD 2024–2027

Executive Board member	Target amount (in € thousand)	Award price (in €)	Number of performance share units awarded	Maximum possible number of performance share units (cap: 200%)	Fair value as of December 31, 2024	LTI measured as of December 31, 2024 (in € thousand)
Marc Llistosella	1,500	55.88	26,844	53,688	130.75%	1,961
Frank Markus Weber	900		16,106	32,212	130.75%	1,177
Dr. Claudia Mayfeld	800		14,317	28,634	130.75%	1,046
Bernd Spies	800		14,317	28,634	130.75%	1,046
Dr. Nicolas Lange	800		14,317	28,634	130.75%	1,046

Share ownership guidelines (SOG)

In addition to the LTI as a share-based compensation element, the share ownership guidelines for the Executive Board constitute a further key component of the compensation system with the objective of promoting the long-term and sustainable development of the company.

The members of the Executive Board are required to acquire and retain ownership of a minimum holding of shares in Knorr-Bremse AG amounting to 100% of their base remuneration for the duration of their service agreement (the "**SOG target**"). A member of the Executive Board is to acquire shares in Knorr-Bremse AG equal to at least 25% of the SOG target in each fiscal year until the SOG target is achieved. In individual cases, the Supervisory Board can use its discretion to depart from the SOG provisions, taking into account the circumstances of the case (e.g., on account of restrictions on the acquisition of shares as a result of contractual, internal, or legal provisions). Starting from the 2025 fiscal year, SOG share purchases will be processed by an external service provider; the company will bear the external costs incurred for the administration.

As of December 31, 2024, the incumbent members of the Executive Board held shares in Knorr-Bremse AG as shown in **Table → 4.09**.

4.09 OVERVIEW OF THE SHARE OWNERSHIP PROGRAM

Executive Board member	End of the build-up phase	Number of shares held	Total acquisition costs of the shares held (in €)	Proportion of the respective base remuneration
Marc Llistosella	December 31, 2026	7,400	483,964	48%
Frank Markus Weber	June 30, 2024	12,424	903,382	100%
Dr. Claudia Mayfeld	April 30, 2025	10,842	832,671	93%
Bernd Spies	March 11, 2026	9,810	649,551	72%
Dr. Nicolas Lange	September 30, 2027	6,000	412,192	49%

Malus/clawback

The compensation system for the Executive Board provides for standard market malus or clawback clauses. Starting in the 2024 fiscal year, the Supervisory Board has, in certain circumstances, the possibility of retaining short-term and long-term variable remuneration components that have been earned ("**malus**") or reclaiming part or all of them if less than three years have passed since payment of the variable remuneration component ("**clawback**"). In particular, such circumstances include a major breach of criminal law provisions or of material duties of care in the leadership of the company by an Executive Board member, or a breach of organizational and monitoring obligations by an Executive Board member leading to such a breach by an employee of the company, a member of a governing body, or an employee of an affiliate of the company. Such circumstances furthermore include the subsequent correction of an objectively incorrect presentation in the consolidated financial statements for a measurement period related to the variable remuneration component, insofar as no variable remuneration payment or a smaller variable remuneration payment would be due based on the corrected consolidated financial statements. The required amendments have already been written into the contracts for four out of the five Executive Board members.

Maximum compensation

The total compensation to be granted to the Executive Board members for a fiscal year (sum of all the remuneration amounts spent for the fiscal year in question, including fixed annual salary, variable compensation components, pension contribution, and fringe benefits or any compensation payments made when new members are appointed) – irrespective of whether they are paid out in this fiscal year or at a later date – has a maximum absolute limit ("**maximum compensation**"). The maximum contractually agreed remuneration for the 2024 fiscal year is € 6,370,000 for the Chief Executive Officer (CEO) and € 4,030,000 for each ordinary Executive Board member.

Regardless of the maximum remuneration, the amount of individual variable remuneration components paid is also capped at 200% of the target amount.

None of the cash payments made to the Executive Board members during the reporting period exceeded the applicable maximum limit for the total compensation to be granted (sum of all the compensation amounts spent for the fiscal year in question, including fixed annual salary, variable compensation components, pension contribution and fringe benefits or any compensation in connection with new appointees commencing their role; maximum compensation). Because the expense for the LTI 2024-2027 will only occur in the third year after the conclusion of the reporting year due to the full-year performance period, it will only be possible to report conclusively on compliance with the maximum compensation for fiscal year 2024 in the compensation report for fiscal year 2027. If the amount for the LTI 2024–2027 results in the maximum compensation being exceeded, the payout amount would be reduced in accordance with the arrangements in the service agreement. If the limit for a fiscal year were exceeded and reducing the payout amount for the LTI for the relevant award year still did not bring the compensation back below the limit, the STI would be reduced. If necessary, the Supervisory Board can, at its discretion, reduce other remuneration components or demand that granted remuneration be paid back.

Compensation-related transactions

Benefits promised or granted by a third party

In the reporting year, no member of the Executive Board was promised or granted benefits by a third party in respect of his or her work as an Executive Board member.

Commitments in the event of termination of service agreements

The Supervisory Board may sign non-competition agreements with Executive Board members for a period of up to two years after they leave the company. Currently, all incumbent Executive Board members are subject to a non-competition agreement for twelve months after they leave the company. During this period, the Executive Board members are entitled to non-compete compensation amounting to a twelfth of the fixed annual salary (base remuneration) per month. The non-compete compensation is set off against any benefits otherwise owed by Knorr-Bremse AG for the period after the termination of the service agreement. Any income received for activities not covered by the non-competition agreement is offset against the non-competition compensation.

The current service agreements provide that in the event of termination of the appointment by mutual agreement, members of the Executive Board receive a compensation payment. The compensation payment is composed of the fixed annual salary and the STI for remaining term of the planned appointment, which for Dr. Mayfeld, Mr. Spies, Mr. Llistosella and Dr. Lange is no longer than 12 months, and for Mr. Weber no longer than 24 months. The compensation payment thus does not exceed the value of two years' remuneration but remains below it and also does not remunerate more than the remaining term of the contract. The compensation payment is set off against any non-compete compensation paid by Knorr-Bremse AG.

If an appointment is prematurely revoked by the Supervisory Board, the respective service agreement ends upon expiration of a notice period pursuant to section 622 (2) of the German Civil Code (BGB). This notice period is extended to a maximum of 24 months to the end of the month (at most until the contract's regular termination date) if the respective Executive Board member is blamelessly dismissed by the Annual General Meeting due to their incapacity to conduct business properly or due to a vote of no confidence, or if they resign prematurely, unilaterally and effectively from their position on the Executive Board for good cause. During the notice period, the members of the Executive Board receive their base remuneration. The claims to STI and LTI are based on the rules on leaving the Executive Board prematurely described above.

Change of control

There is no right of special termination in the event of a change of control or any commitment to make payments based on the premature termination of Executive Board membership as a result of a change of control.

Compensation granted and owed

Presentation of compensation granted and owed in accordance with section 162 AktG

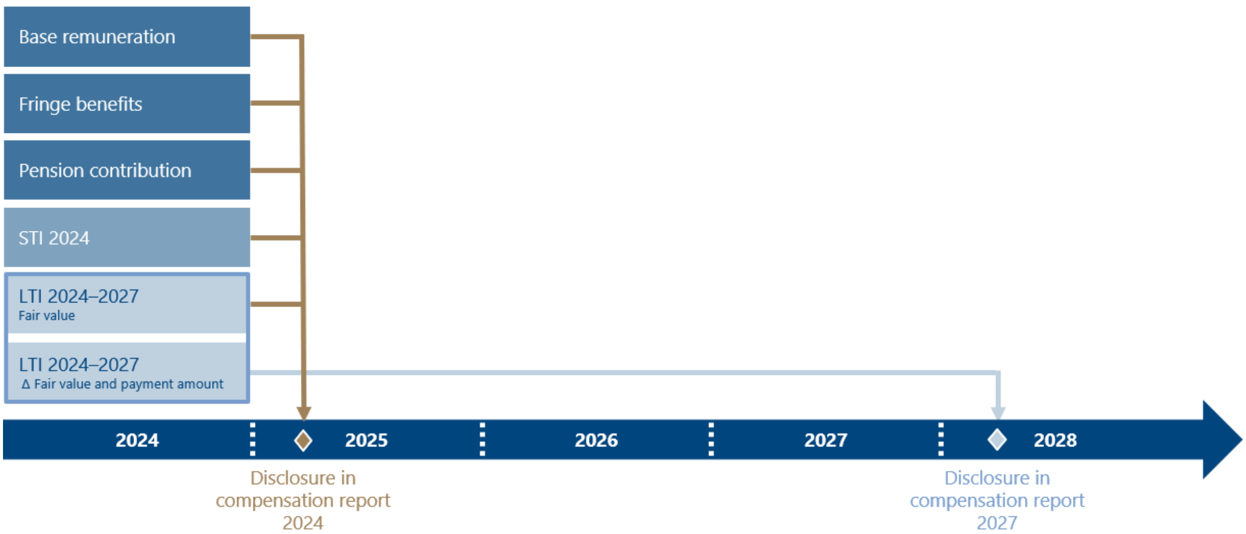
The granted compensation disclosed for the Executive Board members in office during the reporting period is the compensation for the fiscal year for which the underlying work (one or more years) has been completed in full in the reporting period. The amount shown is therefore independent of whether the compensation has already been paid during the fiscal year. For the variable compensation (STI and LTI) this means that depending on the plan's vesting schedule, the amount shown is either that which results from the target achievement of performance periods ending in the reporting year or the fair value at the time the entitlement is vested in full.

Base remuneration, pension contributions and fringe benefits also relate to the work done in the respective fiscal year, regardless of whether they were paid during the fiscal year. The diagram in **Fig. 4** shows the presentation of compensation granted and owed in the 2024 fiscal year.

The LTI 2024-2027 was fully vested in 2024 in accordance with the agreement. The presentation therefore shows the fair value, which is obtained by multiplying the number of provisionally awarded virtual shares (performance share units) by the fair value as of December 31, 2024. The LTI 2024–2027 was not paid out, nor was or is there any entitlement to a payment before the end of the performance period at fiscal year-end 2027. A complete loss of all entitlement is also still possible.

Similarly, the LTI 2023-2026 was fully vested in 2023 in accordance with the agreement. The fair value as of December 31, 2023, calculated as for the LTI 2024-2027, is therefore shown as the previous year's figure.

FIG. 4 PRESENTATION OF 2024 COMPENSATION ELEMENTS AS COMPENSATION GRANTED AND OWED



Active Executive Board members

The following table Table → 4.10 shows the individual compensation granted and owed, on a cash flow basis, in accordance with section 162 (1) sentence 2 number 1 AktG for the incumbent Executive Board members in the 2024 fiscal year, along with the corresponding figures for 2023 (where available).

4.10 COMPENSATION GRANTED AND OWED TO EXECUTIVE BOARD MEMBERS

	Marc Llistosella Chief Executive Officer (CEO) (since January 1, 2023)			**Frank Markus Weber** Chief Financial Officer (CFO) (since July 1, 2020)			**Dr. Claudia Mayfeld** Executive Board Member for Integrity, Legal Affairs and HR (since May 1, 2021)		
in € thousand	**2024**	**In %**	**2023**	**2024**	**In %**	**2023**	**2024**	**In %**	**2023**
Base remuneration	1,000	18	1,000	900	26	900	900	29	900
Fringe benefits	28	0	45	27	1	13	33	1	19
Pension contribution	300	5	300	300	9	300	267	9	200
One-year variable compensation (STI)									
STI 2024	2,314	41	–	1,335	39	–	1,068	34	–
STI 2023	–	–	2,340	–	–	1,269	–	–	1,128
Multi-year variable compensation (LTI)[1]									
LTI 2024–2027	1,961	35	–	1,177	34	–	1,046	34	–
LTI 2023–2026	–	–	1,517	–	–	902	–	–	849
LTI 2022–2025	–	–	–	–	–	–	–	–	–
LTI 2021–2024[2]	–	–	–	-292	-8	–	-194	-6	–
Total compensation pursuant to section 162 AktG	**5,603**	**100**	**5,202**	**3,447**	**100**	**3,384**	**3,120**	**100**	**3,096**

	Bernd Spies Commercial Vehicle Systems division (since March 12, 2022)			**Dr. Nicolas Lange** Rail Vehicle Systems division (since October 1, 2023)		
in € thousand	**2024**	**In %**	**2023**	**2024**	**In %**	**2023**
Base remuneration	900	29	880	833	25	200
Fringe benefits	28	1	16	35	1	5
Pension contribution	300	10	300	300	9	75
One-year variable compensation (STI)						
STI 2024	858	27	–	1,098	33	–
STI 2023	–	–	1,128	–	–	282
Multi-year variable compensation (LTI)[1]						
LTI 2024–2027	1,046	33	–	1,046	32	–
LTI 2023–2026	–	–	849	–	–	212
LTI 2022–2025	–	–	–	–	–	–
LTI 2021–2024[2]	–	–	–	–	–	–
Total compensation pursuant to section 162 AktG	**3,132**	**100**	**3,173**	**3,312**	**100**	**774**

1) The LTI 2023–2026 and LTI 2024–2027 were fully vested at the close of the respective award year and are shown at fair value as of the end of the respective award year.
2) Difference between the fair value originally shown in the 2021 compensation report and the actual amount paid for the 2021–2024 performance period.

Former Executive Board members

The following table Table → 4.11 shows the compensation individually granted and owed pursuant to section 162 (1) sentence 2 number 1 AktG under commitments to former members of the Executive Board. The values presented in the table for the one-year and multi-year variable remuneration show the remuneration that was granted in connection with the termination and paid in 2024.

4.11 COMPENSATION GRANTED AND OWED TO FORMER EXECUTIVE BOARD MEMBERS

	Dr. Jürgen Wilder (until September 30, 2023)		**Dr. Dieter Wilhelm** (until June 30, 2016)		**Executive Board members who left prior to December 31, 2014**	
in € thousand	**2024**	**In %**	**2024**	**In %**	**2024**	**In %**
Non-compete compensation	675	100	-	-	-	-
Retirement pension	-	-	262	100	288	100
Total compensation pursuant to section 162 AktG	**675**	**100**	**262**	**100**	**288**	**100**

Supervisory Board compensation

Description of the compensation system

The compensation system for members of the Knorr-Bremse AG Supervisory Board **(Fig. 5)** was revised with effect from fiscal year 2022 and approved at the Annual General Meeting on May 24, 2022, with 97.00% of the validly cast votes. It provides solely for fixed compensation in line with recommendation G.18 GCGC.

The Supervisory Board remuneration is intended to help attract suitable candidates for the office of Supervisory Board member. It is intended to ensure that the Supervisory Board as a whole is able to competently fulfill its duties to supervise and advise the Executive Board professionally and competently and thus to promote Knorr-Bremse AG's business strategy and long-term development.

The annual remuneration is payable after the end of the general meeting that receives the annual financial statements for the past fiscal year or decides on their approval, in the present case for fiscal 2024 after the Annual General Meeting on April 30, 2025. Supervisory Board members who have not belonged to the Supervisory Board or a committee for a full fiscal year or have not held the role of chair or deputy chair for a full fiscal year receive the corresponding remuneration pro rata temporis, rounding up to a full month.

In addition, the Supervisory Board members receive an attendance fee of € 1 thousand each time they attend a meeting of the Supervisory Board or its committees. Attendance at a meeting includes attendance by telephone, video conference or using similar common means of communication. If several meetings are held on the same day the attendance fee is paid once only.

In accordance with Article 18 (6) of the company's Articles of Association, the company reimburses the Supervisory Board members for reasonable expenditure incurred as part of fulfillment of their roles. Value-added tax is reimbursed by the company where Supervisory Board members are entitled to invoice the company separately for value-added tax and choose to exercise this right. Supervisory Board members are included in the company's D&O insurance policy without a deductible.

There are no pension commitments to members of the Supervisory Board, with the exception of pension commitments associated with employee activities.

FIG. 5 SUPERVISORY BOARD COMPENSATION

Compensation element	Supervisory Board Compensation		
	Chairman	Deputy Chairman	Member
Base remuneration	€ 300,000	€ 150,000	€ 100,000
Committee compensation	Audit Committee: € 120,000 Strategy Committee: € 120,000 Executive Committee: € 90,000	Audit Committee: € 40,000 Strategy Committee: € 40,000 Executive Committee: € 30,000	
Attendance fee	€ 1,000 per meeting[1]		

1) Attendance at a meeting includes attendance by telephone, video conference or using similar common means of communication. If several meetings are held on the same day the attendance fee is paid once only. The annual attendance fee is capped at 9.9% of the total compensation for the Supervisory Board member in the respective year.

Compensation granted and owed

The following table **Table → 4.12** shows the committee memberships and attendance of the individual Supervisory Board members in the 2024 fiscal year on which their overall compensation is based. Here too, the compensation shown for the reporting year is that for which the underlying work has been completed in full in the reporting year. The amount shown is therefore independent of whether the compensation has already been paid during the fiscal year.

On the basis of the compensation system described above and the individual committee memberships and attendance, the following **Table → 4.13** shows the compensation granted and owed for the 2024 fiscal year. This is payable after the 2025 Annual General Meeting. Supervisory Board members did not receive any loans from the Company in either fiscal year 2023 or fiscal year 2024.

4.12 MEMBERSHIP OF SUPERVISORY BOARD COMMITTEES AND ATTENDANCE AT MEETINGS

	Executive Committee (attendance/all meetings[2])	Audit Committee (attendance/all meetings[2])	Strategy Committee (attendance/all meetings[2])	Nomination Committee (attendance/all meetings[2])
Dr. Reinhard Ploss (Chairman of the Supervisory Board)	4/4 (C)	6/6 (M)	4/4 (M)	2/2 (C)
Franz-Josef Birkeneder[1] (Deputy Chairman of the Supervisory Board)	4/4 (M)	6/6 (M)	4/4 (M)	
Dr. Theodor Weimer (Deputy Chairman of the Supervisory Board)	4/4 (M)			
Kathrin Dahnke		6/6 (C)		2/2 (M)
Thomas Mittmann[1] (since July 1, 2024)				
Dr. Sigrid Evelyn Nikutta			3/4 (M)	
Wolfgang Nirschl[1]		3/3 (M)		
Werner Ratzisberger[1]	2/2 (M)	3/3 (M)	2/2 (M)	
Annemarie Sedlmair[1]				
Dr. Stefan Sommer			4/4 (C)	
Julia Thiele-Schürhoff			3/4 (M)	1/2 (M)
Sylvia Walter[1]				
Michael Jell[1] (until June 30, 2024)	2/2 (M)		1/2 (M)	

M = member; C = chair
1) Elected by the employees.
2) Number of meetings held during the term of the respective Supervisory Board or committee member.

4.13 COMPENSATION GRANTED AND OWED

	2024							2023						
in € thousand	Base remuneration	In %	Committee compensation	In %	Attendance fee[1]	In %	Total compensation	Base remuneration	In %	Committee compensation	In %	Attendance fee[1]	In %	Total compensation
Dr. Reinhard Ploss (Chairman of the Supervisory Board)	300	62	170	35	17	3	**487**	300	62	170	35	16	3	**486**
Franz-Josef Birkeneder[2] (Deputy Chairman of the Supervisory Board)	150	55	110	40	15	5	**275**	150	54	110	40	17	6	**277**
Dr. Theodor Weimer (Deputy Chairman of the Supervisory Board)	150	81	30	16	6	3	**186**	150	79	30	16	9	5	**189**
Kathrin Dahnke	100	43	120	51	14	6	**234**	100	43	120	52	12	5	**232**
Thomas Mittmann[2] (since July 1, 2024)	50	94	-	-	3	6	**53**	-	-	-	-	-	-	**-**
Dr. Sigrid Evelyn Nikutta	100	68	40	27	8	5	**148**	100	74	27	-	9	7	**136**
Wolfgang Nirschl[2] (since July 3, 2023)	100	78	20	16	9	7	**129**	50	-	-	-	4	-	**54**
Werner Ratzisberger[2]	100	60	55	33	11	7	**166**	100	66	40	26	11	7	**151**
Annemarie Sedlmair[2, 3]	100	94	-	-	6	6	**106**	100	94	-	-	6	6	**106**
Dr. Stefan Sommer	100	43	120	52	10	4	**230**	100	43	120	52	10	4	**230**
Julia Thiele-Schürhoff	100	67	40	27	10	7	**150**	100	67	40	27	9	6	**149**
Sylvia Walter[2]	100	94	-	-	6	6	**106**	100	94	-	-	6	6	**106**
Michael Jell[2][3] (until June 30, 2024)	50	56	35	39	4	4	**89**	100	63	50	31	10	6	**160**

1) The annual attendance fee is capped at 9.9% of the total compensation for the Supervisory Board member in the respective year.
2) Elected by the employees.
3) In addition, Mr. Jell and Ms. Sedlmair received Supervisory Board compensation from subsidiaries of Knorr-Bremse AG in the 2023 and 2024 fiscal years. Mr. Jell received Supervisory Board compensation of € 19 thousand (until June 30, 2024) and of € 38 thousand (2023). Ms. Sedlmair received Supervisory Board compensation of € 25 thousand for each year.

Multi-year overview

The following overview **Table → 4.14** shows, in accordance with section 162 (1) sentence 2 no. 2 AktG, the relative change in the compensation of Executive Board and Supervisory Board members compared with the average compensation of employees and with selected earnings indicators for Knorr-Bremse AG and Knorr-Bremse Group.

The compensation shown for Executive Board members and Supervisory Board members represents the compensation granted and owed in accordance with section 162 (1) sentence 2 no. 1 AktG for the fiscal year in which the underlying work (one or more years) was completed in full. By contrast, the average compensation shown for employees represents the amount they received in the reporting year.

The key figures for which Knorr-Bremse AG issued guidance in the past fiscal year and the key figures that form the basis of the short and long-term remuneration of the Executive Board, specifically revenues, EBIT, free cash flow, ROCE and earnings per share (EPS) as well as net income according to German GAAP of the separat financial statements of Knorr-Bremse AG, are used to present the results of operations.

The Knorr-Bremse Group's total workforce in Germany (excluding trainees, working students and interns) is applied for the presentation of the average total compensation of employees on a full-time equivalent basis. The total compensation comprises all fixed and variable compensation components that were paid in the reporting period.

4.14 MULTI-YEAR COMPARISON[1)]

	2024	Change 2024/2023	Change 2023/2022	Change 2022/2021	Change 2021/2020
	in € thousand	in %	in %	in %	in %
Executive Board members					
Marc Llistosella	5,603	8	–	–	–
Frank Markus Weber	3,447	2	41	-11	12
Dr. Claudia Mayfeld	3,120	1	60	24	–
Bernd Spies	3,132	-1	100	–	–
Dr. Nicolas Lange	3,312	328	–	–	–
Former Executive Board members					
Dr. Jürgen Wilder	675	-86	137	-32	5
Dr. Dieter Wilhelm	262	0	14	0	0
Members who left prior to December 31, 2014	288	11	-13	1	2
Supervisory Board members					
Dr. Reinhard Ploss	487	0	50	–	–
Franz-Josef Birkeneder[2)]	275	-1	-3	52	17
Dr. Theodor Weimer	186	-2	-3	55	213
Kathrin Dahnke	234	1	-3	70	-18
Thomas Mittmann[2)3)]	53	–	–	–	
Dr. Sigrid Evelyn Nikutta	148	9	91	–	–
Wolfgang Nirschl[2)]	129	139	–	–	–
Werner Ratzisberger[2)]	166	10	-2	54	0
Annemarie Sedlmair[2)]	106	0	-3	36	0
Dr. Stefan Sommer	230	0	-1	75	–
Julia Thiele-Schürhoff	150	1	6	75	0
Sylvia Walter[2)]	106	0	-1	102	–
Michael Jell[2)3)]	89	-44	12	43	0
Earnings indicators					
Knorr-Bremse Group					
Revenues (in € million)	7,883	-1	11	7	9
EBIT (in € million)	911	5	21	-21	13
Operating EBIT margin (%)	12.3	9	2	-18	2
Free cash flow (in € million)	730	32	152	-63	-13
ROCE (%)	18.2	-7	16	-32	-3
Earnings per share – undiluted (in €)	2.76	-19	13	-21	25
Knorr-Bremse AG					
Net income pursuant to German GAAP (in € million)	342	-39	298	-58	-13
Workforce remuneration (per employee)					
Workforce of the Knorr-Bremse Group in Germany[4)]	94	6	2	2	2

1) The compensation shown for Executive Board members and Supervisory Board members represents the compensation granted and owed in accordance with section 162 (1) sentence 2 no. 1 AktG for the fiscal year in which the underlying work was completed in full. By contrast, the average compensation shown for employees represents the amount they received in the reporting year.
2) Michael Jell was a member of the Supervisory Board until June 30, 2024.
Thomas Mittmann has been a member of the Supervisory Board since July 1, 2024.
3) Elected by the employees.
4) Workforce remuneration constitutes the payments made to employees in the 2024 fiscal year and includes not only the collective agreement increase granted in the 2024 fiscal year but also the EBIT bonus paid out for the first time in the 2023 fiscal year; the inflation adjustment bonus paid out once in 2024 was not taken into account.

This compensation report was jointly prepared by the Executive Board and the Supervisory Board. The Executive Board and Supervisory Board each passed resolutions to approve this compensation report on March 20, 2025.

Munich, March 20, 2025

MARC LLISTOSELLA
CEO
Knorr-Bremse AG

DR. CLAUDIA MAYFELD
Executive Board member for Integrity, Legal and HR
Knorr-Bremse AG

DR. REINHARD PLOSS
Chairman of the Supervisory Board
Knorr-Bremse AG

Report on the audit of the remuneration report

We have audited the attached remuneration report of Knorr-Bremse AG, for the financial year from 01.01.2024 to 31.12.2024, including the related disclosures, prepared to meet the requirements of Section 162 AktG [Aktiengesetz: German Stock Corporation Act].

Responsibilities of Management and the Supervisory Board

The management and the Supervisory Board of Knorr-Bremse AG are responsible for the preparation of the remuneration report, including the related disclosures, in accordance with the requirements of Section 162 AktG. The management and the Supervisory Board are also responsible for such internal control as they have determined necessary to enable the preparation of the remuneration report that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities

Our responsibility is to express an opinion on this remuneration report, including the related disclosures, based on our audit. We conducted our audit in accordance with the German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report, including the related disclosures, is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts, including the related disclosures, in the remuneration report. The procedures selected depend on the auditor's professional judgement. This includes an assessment of the risks of material misstatement, whether due to fraud or error, in the remuneration report, including the related disclosures. In assessing these risks, the auditor considers the internal control system relevant for the preparation of the remuneration report, including the related disclosures. The objective is to plan and perform audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management and the Supervisory Board, as well as evaluating the overall presentation of the remuneration report, including the related disclosures.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the financial year from 01.01.2024 to 31.12.2024, including the related disclosures, complies in all material respects with the financial reporting requirements of Section 162 AktG.

Other matter – formal examination of the remuneration report

The substantive audit of the remuneration report described in this independent auditor's report includes the formal examination of the remuneration report required by Section 162 (3) AktG, including issuing an assurance report on this examination. As we have issued an unqualified opinion on the substantive audit of the remuneration report, this opinion includes the conclusion that the disclosures pursuant to Section 162 (1) and (2) AktG have been made, in all material respects, in the remuneration report.

Limitation of liability

The terms governing this engagement, which we fulfilled by rendering the aforesaid services to Knorr-Bremse AG, are set out in the General Engagement Terms for Wirtschaftsprüferinnen, Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms] as amended on 1 January 2024. By taking note of and using the information as contained in this auditor's report, each recipient confirms to have taken note of the terms and conditions laid down therein (including the limitation of liability of EUR 4 million for negligence under Clause 9 of the General Engagement Terms) and acknowledges their validity in relation to us.

Munich, 20. March 2025

KPMG AG
Wirtschaftsprüfungsgesellschaft

Huber-Straßer Wirtschaftsprüferin	Mokler Wirtschaftsprüfer

Financial Calendar*

April 30, 2025	Annual Shareholder's Meeting
May 8, 2025	Q1/Interim Statement 3 months 2025
July 31, 2025	Q2/Half Year Report 2025
October 30, 2025	Q3/Interim Statement 9 months 2025

* The latest information on the dates can be found on our website www.knorr-bremse.com.

Imprint

Please feel free to contact us for further information.

Publisher
Knorr-Bremse AG
Moosacher Str. 80, 80809 Munich, Germany
corporate.communications@knorr-bremse.com
www.knorr-bremse.com

Contact Person
Alexander Stechert-Mayerhöfer, Knorr-Bremse AG, Munich

Concept and Design
3st kommunikation GmbH, Mainz

Photo Credits
Andreas Pohlmann, Munich
Constantin Mirbach, Munich
Knorr-Bremse AG, Munich
Dani Lugo/Shutterstock.com
General photographer/Shutterstock.com
Milos Muller/Shutterstock.com
Logan Campbell/Getty Images
Toni Hoffmann/Getty Images

Further information on the annual report
Due to rounding, numbers presented throughout this report may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures. The Annual Report of Knorr-Bremse Group was published on March 20, 2025 in German and English. The German version is legally binding.

www.knorr-bremse.com