vossloh
enabling green mobility

enabling green mobility

Annual report 2022

Key Group figures		2022	2021
Orders received	€ mill.	1,247.0	947.6
Order backlog	€ mill.	799.6	611.4
Income statement data			
Sales revenues	€ mill.	1,046.1	942.8
Core Components	€ mill.	482.1	429.1
Customized Modules	€ mill.	456.1	418.7
Lifecycle Solutions	€ mill.	136.0	115.5
EBITDA	€ mill.	131.2	124.2
EBITDA margin	%	12.5	13.2
EBIT	€ mill.	78.1	72.3
EBIT margin	%	7.5	7.7
Net interest result	€ mill.	(10.6)	(7.5)
EBT	€ mill.	67.5	64.8
Net income	€ mill.	56.0	35.9
Earnings per share	€	2.38	1.31
Return on capital employed[1]	%	8.2	8.1
Value added[1]	€ mill.	11.5	9.5
Balance sheet data			
Fixed assets[2]	€ mill.	731.6	726.0
Capital expenditure	€ mill.	58.2	51.3
Depreciation/amortization	€ mill.	53.1	51.9
Closing working capital	€ mill.	191.6	175.6
Closing capital employed	€ mill.	923.2	901.6
Equity	€ mill.	625.1	587.9
Noncontrolling interests	€ mill.	27.2	28.6
Hybrid capital	€ mill.	148.3	148.3
Net financial debt	€ mill.	197.6	174.0
Net financial debt (including lease liabilities)	€ mill.	237.5	215.6
Total assets	€ mill.	1,368.8	1,289.4
Equity ratio	%	45.7	45.6
Cash flow statement data			
Gross cash flow	€ mill.	130.5	125.1
Cash flow from operating activities	€ mill.	71.6	81.3
Cash flow from investing activities	€ mill.	(44.9)	(57.9)
Cash flow from financing activities	€ mill.	(29.3)	(30.8)
Free cash flow	€ mill.	27.9	30.6
Workforce data			
Annual average headcount	Number	3,794	3,612
Core Components	Number	937	879
Customized Modules	Number	2,241	2,150
Lifecycle Solutions	Number	549	520
Vossloh AG	Number	67	63
Personnel expenses	€ mill.	226.8	211.8
Share data			
Year-end closing price	€	39.10	45.15
Closing market capitalization as of December 31	€ mill.	686.8	793.0

[1] Based on average capital employed

[2] Fixed assets = intangible assets plus property, plant and equipment plus investment properties plus investments in companies accounted for using the equity method plus other noncurrent financial instruments

Letter from the CEO

Dear shareholders,
ladies and gentlemen,

During the past fiscal year, we once again proved our resilience in the face of challenging times. Vossloh has continued on its successful course, not only achieving its ambitious targets but also significantly exceeding them in certain cases. Vossloh remains on track despite the adverse conditions. 2022 certainly had plenty of such challenges to offer. Overlapping crises have since become the new normal: the Russian war of aggression in Eastern Europe, an energy crisis, a refugee crisis, a climate crisis, a COVID-19 pandemic, massive disruption to supply chains, staggering inflation in many parts of the world and a significant hike in interest rates. This list could no doubt be continued. Seemingly the world is becoming an increasingly confusing place. The world's stock markets reacted significantly to the developments in 2022. The MSCI World index and DAX fell by around 13 percent and 12 percent respectively, while the MDAX and SDAX declined by 28 percent and 27 percent respectively.

Let's take a look at how Vossloh performed in the period under review. Despite all of the challenges outlined above, Vossloh proved again to be an extremely resilient company in 2022. In fact, we were more than just resilient. We were not only able to keep our key financial parameters stable, and thus defy the overlapping crises. In many cases we were even able to improve them significantly. Orders received reached a new record high of around €1.25 billion, a significant improvement of 31.6 percent on the previous year. The order backlog came to €799.6 million as of December 31, 2022, a year-on-year rise of 30.8 percent. For the first time in our history, Group sales exceeded €1 billion in our core business rail infrastructure in the past fiscal year. Sales revenues came to €1.05 billion, an increase of 11.0 percent compared to the previous year. It is also worth noting because we have already achieved an 8 percent improvement in sales revenues in 2021. And last but not least, despite considerable additional burdens resulting from the massive rise in prices for materials and energy, EBIT increased by €5.8 million to €78.1 million. The Group's EBIT was thus the highest in ten years. This outstanding performance is due in large part to the untiring commitment of all of our employees around the globe. On behalf of the Executive Board, I would like to express our sincere thanks to each and every one of them for the part they have played in our success.

Moreover, the exceedingly positive performance of our company is to a very decisive extent based on a future-oriented, sustainable and crisis-resistant business model. Every day, all over the world, Vossloh makes a valuable contribution to green mobility in the sense of an ecologically and economically sensible change in transport. Our products and services play a key role in cutting harmful emissions and significantly reducing the energy and land requirements of the transport sector. Rail is undisputedly the most energy-efficient and environmentally friendly mode of transport, and also offers significant advantages in terms of efficient land use especially compared to road. In light of this, it is unavoidable and there is simply no alternative to shifting transport capacities from road to rail in terms of sustainability. The governments of Germany, other EU member states, the USA, China, and Australia are launching investment programs worth billions to drive forward the green change in transport. These are excellent conditions for our industry with a view to the coming decades. In addition, as most of our customers are public sector entities and tend to make plans and decisions with a long-term perspective, we are, to a certain extent, independent of cyclical fluctuations, and this gives our business additional stability.

The importance of maximizing the availability of the existing rail infrastructure increases, as there are a number of factors in play which will make it impossible to build a sufficient number of new rail lines to keep up with

„Every day, all over the world, Vossloh makes a valuable contribution to green mobility in the sense of an ecologically and economically sensible change in transport."

Oliver Schuster
CEO

the planned increase in rail traffic. Against this backdrop, in addition to building new lines, many countries are urgently in need of replacement rail products and solutions to significantly increase the efficiency of their maintenance processes. More traffic means more wear and tear, resulting in an increased need for maintenance, while simultaneously reducing the amount of time available for maintenance. When it comes to solving precisely such complex problems our clients benefit from our comprehensive portfolio of high-quality products and services, which is characterized by a unique systemic understanding of the track coupled with a high level of digital expertise. Vossloh is able to monitor track conditions with precision using both stationary and mobile equipment. After analyzing the data, we offer tailored maintenance solutions to maximize the availability and service life of rail infrastructure. Our technological leadership and innovative spirit create value for our customers, ensuring their success along with Vossloh's. One example is the landmark project which provides data-based digital condition monitoring for 1,000 switches for the Swedish rail infrastructure operator Trafikverket. Our state-of-the-art sensor technology in conjunction with smart algorithms provide our customers with important real-time information about the condition of their infrastructure components directly from our cloud-based data platform. This significantly reduces downtime due to unexpected switch faults while noticeably increasing the efficiency of maintenance measures and track availability.

In the past fiscal year, we impressively underscored our commitment to technological leadership at InnoTrans in Berlin, the most important trade fair in the industry. We unveiled to the global public an exciting range of new products and services in a number of customer-oriented topic zones, including our innovative engineered polymer sleeper (EPS), which provides a sustainable and resource-efficient alternative to conventional wooden ties, and our new M-generation tension clamp, with further improved product properties and a significantly lower carbon footprint. Smart switch monitoring and digital-based track inspections using drones allow for detailed data collection and analysis without the need to close track sections for repairs. Similarly to this, our smart high-speed grinding trains allow us to record, process and re-measure rail conditions all at the same time. Our innovations revolve around our customers and their needs. We are rail track experts and a rail infrastructure systems house trusted by customers around the world.

Ladies and gentlemen, „enabling green mobility" isn't just our motto; it's a passion that drives us on a daily basis. In light of this, we don't restrict ourselves to simply facilitating more rail-bound mobility. We also continuously improve the performance and environmental footprint of our products and services so that we can make an additional contribution to preserving our natural resources. For details about the extensive sustainability measures that we implemented over the past fiscal year and the ratings we received from ESG rating agencies, please refer to our nonfinancial statement, which starts on page 78 of this report.

We received valuable new inputs also from our employees who actively participated in the Group-wide ideas management program „Fit 4 Future" during the period under review. Almost 1,000 suggested improvements were submitted, and just under 300 have already been implemented. More will be implemented in due course. This project is further evidence of our commitment to never standing still and rest on our achievements. We are always striving to become better, more creative, more productive, and more efficient.

Dear shareholders, the Executive Board has set itself the goal of driving Vossloh forward and continuing to grow at a faster pace than the market. Even though conditions remain challenging, we are confident that we will achieve this goal once again in 2023. We expect to see our sales revenues rise to between €1.05 billion and €1.15 billion. Despite the continuing high level of procurement costs for energy and materials and a significant increase in personnel costs, we expect to see another considerable rise in EBIT to between €79 million and €88 million in 2023. Due to the strong order situation and positive business trend, the Executive Board and Supervisory Board will once again propose distributing a dividend of €1.00 per share to the shareholders at the Annual General Meeting of Vossloh AG.

On behalf of the entire Executive Board, thank you for the trust you placed in us in 2022. We look forward to continuing the sustainable and profitable growth of our company together as we make green mobility a reality around the globe, one step at a time.

Yours sincerely,

Oliver Schuster
Chief Executive Officer, Vossloh AG

Jan Furnivall (COO) **Oliver Schuster** (CEO) **Dr. Thomas Triska** (CFO)

Overview of the year 2022

Q1 2022

- Vossloh AG successfully issues a Schuldschein loan with a volume of €25 million within the framework of a private placement. The **Schuldschein loan** has a term of seven years and a fixed interest rate of 0.8 percent per year. The good conditions and the fact that the Schuldschein loan was significantly oversubscribed underline the trust that Vossloh receives on the capital market. The transaction also secures attractive long-term financing conditions for Vossloh.

- Vossloh receives a groundbreaking order for the initial delivery of three **high-speed grinding machines (HSG-city) for use in the metro network of the southern Chinese metropolis of Shenzhen**. The high-speed grinding train is a world first. It draws its power from the conductor rail, making it completely emission-free.

- Vossloh is awarded one of the **largest infrastructure orders** in the company's history by the Australian state-owned rail company Australian Rail Track Corporation for the **Inland Rail project**. The construction of the roughly 1,700-kilometer line between Melbourne and Brisbane is the largest rail freight infrastructure project in Australia. The total volume of the order for concrete ties is worth around €90 million. Vossloh was previously awarded an order worth around €50 million for the delivery of switch components for the same project in early 2021.

- Vossloh receives another order for rail fastening systems for the **construction of two new high-speed lines in China**. The high-speed network in China is already the largest in the world and is continuing to grow rapidly. Vossloh has been involved with its expansion since 2006. The total order volume is worth around €90 million and relates to the **connections between Laixi and Rongcheng** and **the major cities of Weifang and Yantai**.

Q2 2022

- Vossloh receives a major order for the supply of **rail fastening systems for a new high-speed rail line in northern Egypt** from the state-owned National Authority for Tunnels. This project will connect the coastal city of El-Alamein and Ain Suchna on the Suez Canal. The double track line will be roughly 660 kilometers in length and form part of Egypt's planned 2,000-kilometer high-speed network. The order encompasses a volume of over €40 million.

- All the agenda items suggested by the Executive and Supervisory Boards at the **Annual General Meeting** are approved by the shareholders by a large majority. This includes a proposed dividend of €1.00 per share. 73.84 percent of the overall share capital is represented.

- **Oslo public transport operator Sporveien** orders a high-speed grinding machine HSG-city. It will be in operation for 1,500 hours each year from mid-2023 onward to keep the almost 130 kilometers of the city's rail network in good condition. The order highlights the healthy demand for Vossloh's unique and patented high-speed grinding technology.

- In May 2022, Vossloh comes together with almost 100 customers to celebrate the official opening of the **factory of the future** for Vossloh Fastening Systems at the Werdohl site. Vossloh has invested around €40 million into the factory of the future to create the world's most advanced production facility for rail fastening systems. The factory, with its considerably increased efficiency, is largely automated and has significantly increased the level of vertical integration within the company. All of the employees at the factory and their families are invited to celebrate the grand opening.

Q3 2022

/ **DB Netz AG** commits to using **high-speed grinding for the preventive rail maintenance** of its highly loaded network in 2023. The order will cover at least 12,000 kilometers of track. A new smart HSG train will use a comprehensive set of measurement and analysis technology to record important track condition data. The data is collected in real time and evaluated using algorithms. The grinding program can be adjusted to suit different track conditions. In addition to preventing track defects and significantly extending rail lifecycles, using the smart HSG machines on a regular basis will provide a growing set of data which can be used for predictive track maintenance.

/ Following the motto **„enabling green mobility"**, Vossloh presents a number of ground-breaking rail infrastructure innovations at the world's largest rail fair, **InnoTrans** in Berlin. Vossloh showcases solutions which address the most pressing challenges in terms of the performance and availability of rail tracks in the Advanced infrastructure, Future turnout environment and Smart maintenance topic zones. Customer feedback is overwhelming and the trade fair a resounding success.

/ Vossloh also presents its **new M-generation tension clamps** at InnoTrans in Berlin. Their innovative shape with convex spring arms increases the resonance frequency and makes the tension clamps particularly resilient while prolonging their service life and reducing lifecycle costs. The new M-generation features innovative microalloyed steel, uses less material and has a more compact design with a significantly improved CO_2 footprint.

Q4 2022

/ Vossloh makes significant headway in the ground-breaking **order for data-based switch condition monitoring** in Sweden. The multiyear order was received from Trafikverket two years prior and involves equipping a total of 1,000 switches in the Swedish network. Trafikverket aims to reduce the amount of unplanned downtime due to switch defects, drive up the efficiency of its maintenance work and significantly improve the availability of its rail network. The roll-out of the successfully validated solution will begin in January 2023.

/ The 2022 Eduard Vossloh Award is handed out to finalists as part of the Fit 4 Future Initiative, **Vossloh's group-wide ideas program for efficiency-related solutions**. First place goes to an idea from Luxembourg, which can be used to significantly reduce milling times for tram switch components. The sustainability award is handed out as a special prize for the best idea for the first time. It is awarded to the USA for the approval of a more environmentally friendly, low carbon cement for the manufacture of concrete ties.

/ **Orders received reach a record high** despite the ongoing challenges being driven by geopolitical uncertainty, supply chain disruption and rising prices. Vossloh's orders total €1.25 billion, which corresponds to an increase of 31.6 percent compared to the previous year – clear evidence of Vossloh's position as a leading provider in the promising rail infrastructure market.

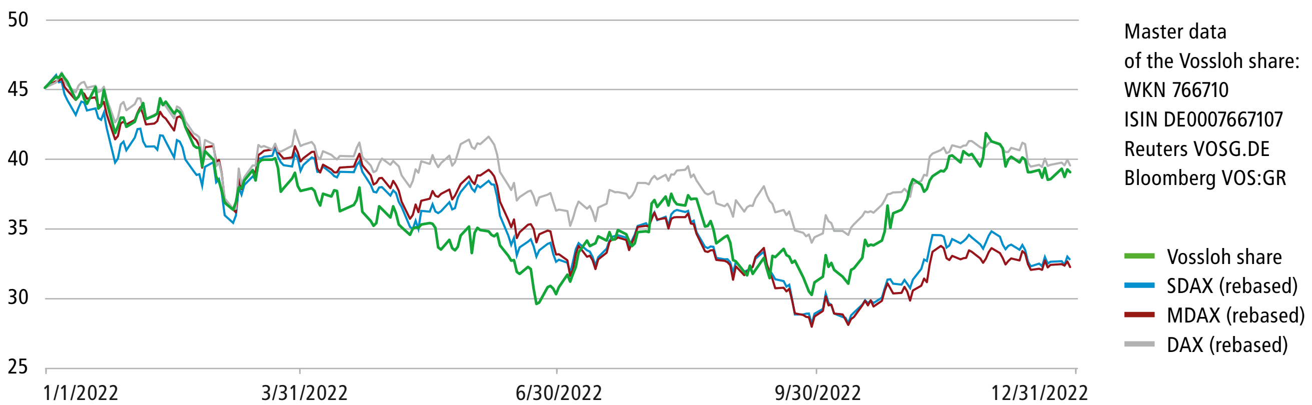
Vossloh stock

The 2022 stock market year was dominated by geopolitical crises as well as a turnaround in monetary policy. It was a negative stock market year overall for the most important leading indices. The DAX closed 2022 at 13,924 points on the last day of trading, down 12.3 percent compared to the end of 2021. The decline in the MDAX and SDAX indices over the year as a whole was even more pronounced: The MDAX closed the 2022 stock market year at 25,118 points – a downturn of 28.5 percent compared to the last trading day of the previous year. The SDAX performed almost in parallel to the MDAX over the course of the year and closed the year at a level of 11,926 points. This corresponds to a 27.3 percent drop compared to the previous year. The share prices of smaller companies were more affected overall by the uncertainty than those of the large companies listed on the DAX.

The poor performance of the indices was largely driven by Russia's war of aggression in Ukraine, which began on February 24, 2022. This caused a significant level of uncertainty in the financial markets with regard to the security of the supply of materials and energy, among other areas. Prices for energy and food rose drastically, driving inflation in Germany up to 10.4 percent in October. The ongoing disruption to global supply chains and the effects of the COVID-19 pandemic put an additional strain on Germany's economy. Central banks in the USA and Europe raised interest rates significantly a number of times in quick succession to counter rising inflation. The US Federal Reserve raised the federal funds rate by a total of four percentage points over the course of 2022, with the most recent increase taking it from 4.25 percent to 4.5 percent. The European Central Bank followed suit at a later point when it abandoned its zero interest rate policy after six years and incrementally raised the key interest rate to 2.5 percent between July and December.

The Vossloh AG share held its own in this challenging market environment. It significantly outperformed the SDAX and MDAX in the 2022 fiscal year. Following significant gains towards the end of the year, it was also able to outperform the DAX. The price performance of the Vossloh share without taking into account the dividend paid out in 2022 is shown in the figure below. On a comparable basis to the development of the indices and thus taking into account the dividend payment made in 2022 as amounts reinvested in the share, the price decline was 10.8 percent.

Stock price trend from January 1, 2022 to December 31, 2022



Master data
of the Vossloh share:
WKN 766710
ISIN DE0007667107
Reuters VOSG.DE
Bloomberg VOS:GR

Vossloh stock indicators		2022	2021
Earnings per share	€	2.38	1.31
Dividend per share[1]	€	1.00	1.00
Annual average number of shares outstanding	thousand shares	17,564	17,564
Number of shares outstanding at year-end	thousand shares	17,564	17,564
Closing share price	€	39.10	45.15
Price high/low	€	46.35/29.30	49.45/39.35
Closing market capitalization	€ mill.	686.8	793.0
Trading volume	thousand shares	3,020	3,041
Average daily trading volume	thousand shares	11.8	11.9

[1] Proposed dividend for the 2022 fiscal year, subject to the approval of the Annual General Meeting

The Vossloh share started the 2022 stock market year at a price of €45.35 and soon reached its high for the year of €46.35 on January 6. Over the first half of the year, the Vossloh share lagged behind the benchmark indexes in some cases and fell to €29.30 on June 23 before markedly recovering and then significantly outperforming the MDAX and SDAX, particularly with the onset of the final quarter of the year. The share price at the end of the year was €39.10. This corresponds to a market capitalization of €686.8 million as of December 31, 2022.

Dividend

The Executive Board and Supervisory Board of Vossloh AG will propose a dividend of €1.00 per share (previous year: €1.00) for the 2022 fiscal year to the shareholders at the Annual General Meeting scheduled for May 24, 2023. Based on the number of dividend-bearing shares, this equates to a dividend payout of approximately €17.6 million.

Shareholder structure

Nadia Thiele, the widow of the late Heinz Hermann Thiele, respectively Robin Brühmüller, the executor of his estate, hold 50.09 percent of the shares in Vossloh AG based on their most recent voting interest notifications via KB Holding GmbH, making them the largest shareholders. Another shareholder of Vossloh AG with voting rights exceeding the legal reporting threshold of 3 percent is Franklin Mutual Advisers, LLC, Wilmington, Delaware, USA, which holds 4.99 percent of capital stock according to the most recent voting interest notification. The latter is attributed to free float in line with the definition used by Deutsche Börse AG. As a result, the free float of Vossloh AG's share capital was 49.91 percent on December 31, 2022. This results in market capitalization of freely available shares of around €347.0 million using a volume-weighted average price over the previous 20 trading days up to December 30, 2022.

Analysts' ratings

At the time that this report was being prepared in late February 2023, the Vossloh AG share was being tracked by seven financial analysts, who issue reports and assessments at regular intervals. Five of them recommend buying the Vossloh share, while two others recommend holding. The average price target for Vossloh shares was €45 based on the analysts' ratings available up to the end of February 2023. The lowest target price was €38, while the highest was €50.

Sustainability

For a number of years, Vossloh's comprehensive sustainability measures have been assessed on a regular basis by renowned international rating agencies, including ISS ESG, MSCI ESG Research and EcoVadis. The ISS ESG agency has awarded Vossloh Prime status. In December, MSCI ESG Research upgraded Vossloh's rating from A to the second-best rating of AA (on a scale from AAA to CCC). The analysts at EcoVadis awarded Vossloh Silver status, putting Vossloh in the top ten percent of all companies assessed by EcoVadis. For more information about sustainability at Vossloh, please refer to page 78 et seq. of the nonfinancial Group statement (also refer to the information on the website at www.vossloh.com > "Investor Relations" > "Sustainability").

Due to the sustainability-oriented hybrid note placed by the Group at the beginning of 2021, the ratings of ISS ESG and MSCI ESG Research are also of importance for Vossloh. The redemption value of the note is linked to Vossloh's sustainability performance as rated by the agencies.

Reporting for the 2021 fiscal year was subject to the obligations of the EU Taxonomy Regulation for the first time. This standardized classification system defines and assesses environmentally sustainable economic activities. As in the previous fiscal year, Vossloh also reports values for 2022, which explicitly underpin its sustainable business model: 100 percent of sales revenues are assessed as being taxonomy-eligible, while 64 percent are taxonomy-aligned.

Capital market dialog

The Executive Board and the Investor Relations team of Vossloh AG remained in regular and close contact with institutional and private investors in the 2022 fiscal year. During the period under review, the company took an active role in a number of capital market conferences, organized its own meetings with investors and analysts and held regular conference calls to give capital market participants the opportunity to submit their questions to the members of Vossloh AG's Executive Board.

The Executive Board and the Investor Relations team of Vossloh AG are at your disposal for any inquiries submitted in writing or by phone. Comprehensive information about the company and the Vossloh AG share is also available online at www.vossloh.com. In addition to up-to-date financial reports, presentations and press releases, the website also provides information about creditor relations. You can send an email to investor.relations@vossloh.com or call us at (+49-2392) 52-609.

THE MARKET: FUTURE-PROOF WITH EXCELLENT GROWTH PROSPECTS

The rail industry is on course for growth worldwide. Many countries around the world are now relying more heavily on rail as an environmentally friendly mode of transport in order to achieve ambitious climate targets. The world's population is growing and the number of people living in cities is constantly on the rise. In turn, private transport as we currently know is reaching its limits. The need to efficiently manage modes of transport while ensuring responsible land use and reducing harmful emissions is posing major challenges to communities around the world. Making greater use of rail as a key mode of transport is vital for future multimodal transport concepts.

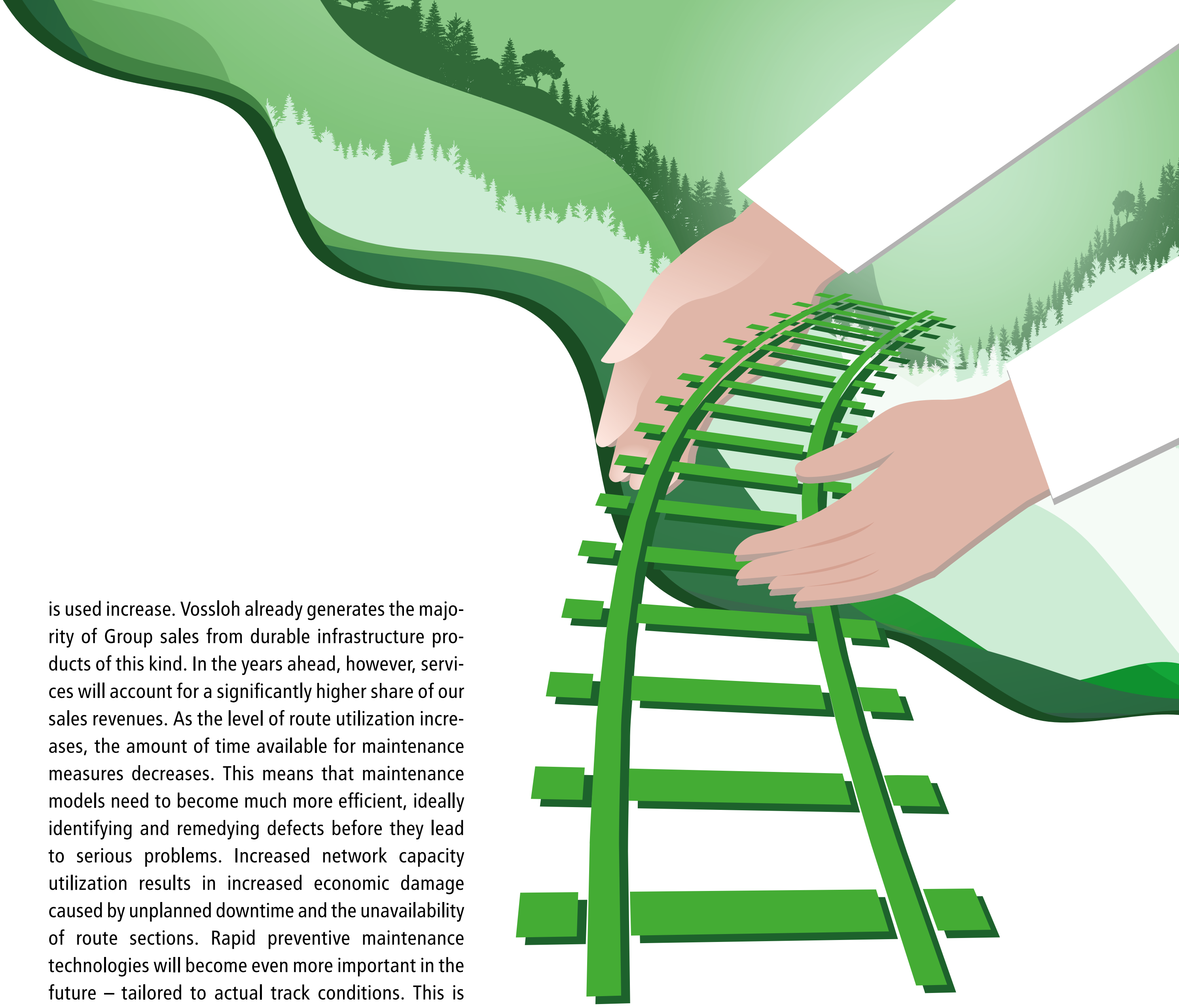
Rail-based transport is unrivaled in terms of sustainability. Rail handles 13 percent of all freight and 7 percent of passenger transport in the European Union, while accounting for just 2 percent of the energy consumed by the transport sector as a whole. With the acceleration of rail line electrification and renewable energies accounting for an increasing share of the electricity mix, rail is becoming even more competitive in terms of CO_2 emissions. Rail-based transport is also highly efficient when it comes to land use. In cities, rail uses 90 percent less land per person transported than private motorized transport. As the percentage of transport areas covered by impervious surfaces continues to grow, it is becoming increasingly difficult for rainwater to infiltrate into the soil. This has far-reaching consequences for our environment. Governments in many countries around the world have now recognized the benefits of rail transport and launched extensive investment programs. This trend will shape our industry for decades to come.

To shift passengers and freight onto the rail network, we first need to maximize track availability

The world's rail infrastructure covers a length of around 1.7 million kilometers and is constantly expanding. However, expanding existing rail networks in line with the rate at which the level of traffic is increasing is not possible in practical terms. Increasing the track availability of our rail network is therefore of vital importance. Modern train control systems and the increasing shift to digital signal boxes will facilitate increased traffic density on rail routes. However, this rise in rail traffic requires the rail infrastructure to be efficient and intact.

Vossloh finds itself in a unique position

Wear and tear will inevitably go up, leading to higher demand for rail infrastructure products as both traffic density and the intensity with which the network



is used increase. Vossloh already generates the majority of Group sales from durable infrastructure products of this kind. In the years ahead, however, services will account for a significantly higher share of our sales revenues. As the level of route utilization increases, the amount of time available for maintenance measures decreases. This means that maintenance models need to become much more efficient, ideally identifying and remedying defects before they lead to serious problems. Increased network capacity utilization results in increased economic damage caused by unplanned downtime and the unavailability of route sections. Rapid preventive maintenance technologies will become even more important in the future – tailored to actual track conditions. This is made possible by deploying sensors on the track and maintenance machines paired with the ability to process and analyze large volumes of data in real time using AI. Network operators rely on Vossloh for its expert knowledge and its understanding of the rail track as a system, in addition to its expertise in comprehensive solutions and a uniquely broad product and service portfolio.

Strong growth with a future-proof business model

After comparing the periods 2019 to 2021 and 2025 to 2027, the European industry association UNIFE expects the relevant market accessible to Vossloh to grow at an average annual rate of 3.4 percent. This would increase the size of the corresponding global market from just under €29 billion to around €35 billion. By contrast, market analysts expect the rail sector as a whole to grow by just 2.9 percent over the same period. Based on these assumptions, the market relevant to Vossloh should grow significantly faster and also more strongly than forecast in earlier studies. Thanks to its market-leading positions for rail fastening and switch systems and its technologically sophisticated rail services, Vossloh has an international presence and will benefit from the rising demand. Vossloh also generates a significant share of its worldwide sales revenues directly or indirectly from public-sector customers. This protects us against short-term cyclical fluctuations and gives our business model additional stability.

Moreover, by the end of the decade, many network operators, especially those in industrialized nations, will lose a significant portion of their workforce as baby boomers retire. In turn, external suppliers and service providers will take on more responsibility with regard to track availability and other areas. Trendsetting business models such as Availability as a Service will become noticeably more important in the coming years. This is an area with a great deal of potential for Vossloh.

OUR STRATEGY:
CLEAR, GROUNDBREAKING.

The stability of the company and Vossloh's steadily improving performance are no coincidence. We have taken targeted action to achieve both in recent years. Our actions are guided by a detailed corporate strategy which is implemented by the entire organization.

We are now perceived as a rail infrastructure systems house by leading technical network operators. No other company focuses on rail tracks as an entire system to the same extent as Vossloh. We are the only company to take care of the development, production and sale of all major track components and offer a wide range of increasingly digital-based services from a single source. Digitization and the ability to generate information that is relevant and creates value from the data we collect form the crucial bridge between our products and services.

Strong business with existing customers

Our first strategic focus area is to further strengthen our broad business with products and traditional services. This makes up the core of our business and represents a key foundation for future business models. Our aim of steadily increasing our profitability is inextricably linked with the expansion of our existing business. Vossloh is pursuing a strategy of reducing production costs, increasing its focus on growth areas, adding complementary products and services to its range and engaging in targeted innovations.

A smart service business

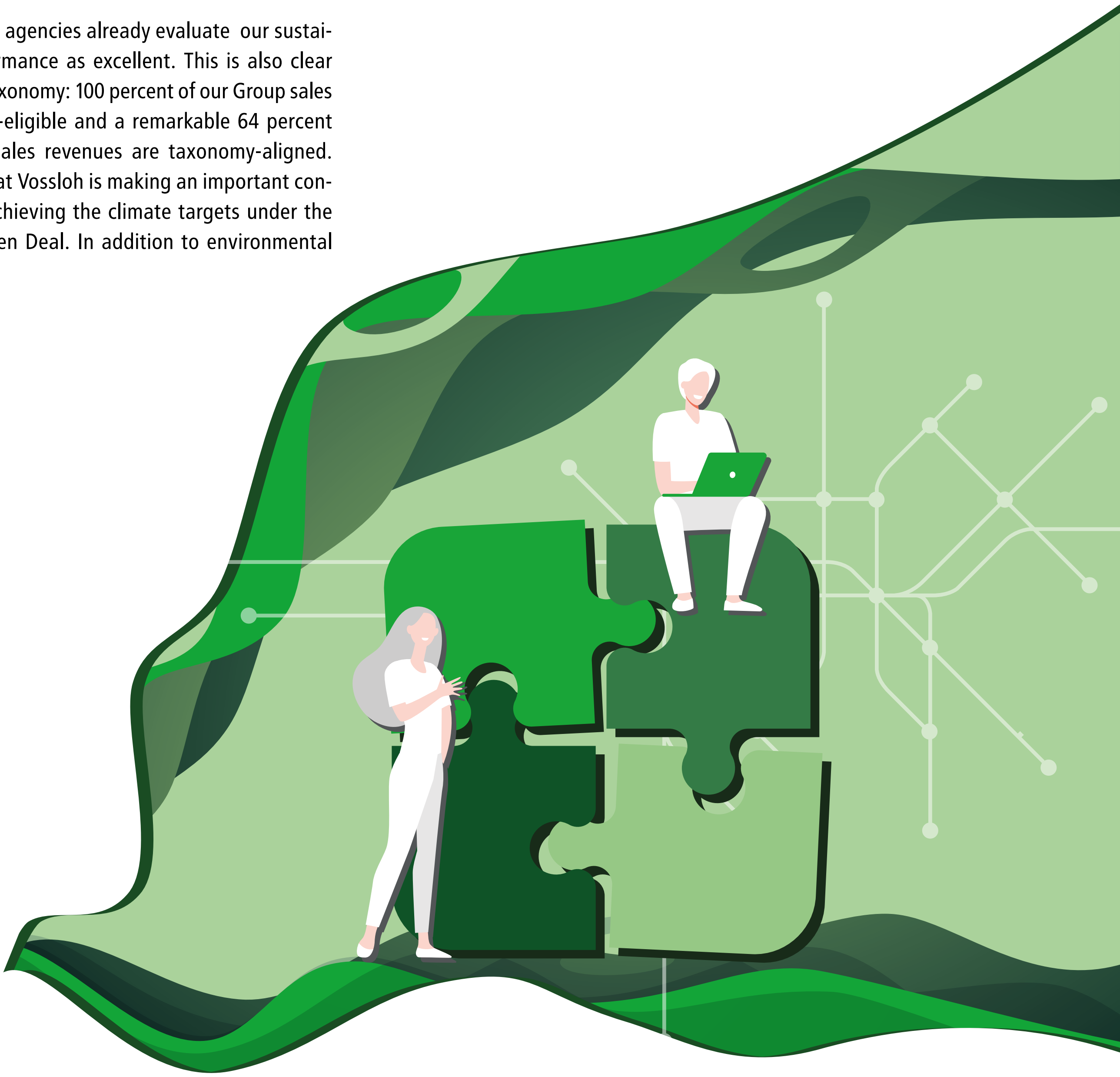
The second core element of our corporate strategy is to expand our service business with digital competences. Using sensors to record track conditions and identify relevant information is revolutionizing the maintenance business. The data is collected either directly on the track or by our smart maintenance machines equipped with extensive measuring systems. In a cloud-based platform, the data from both sources together with relevant infrastructure and operational data from the customer provide an overall picture. Our deep and comprehensive understanding of the physics of the rail track provides a pivotal framework for the subsequent analysis of the data. We develop tailored maintenance solutions for our customers based on the insights gained in this way. The maintenance of the future is based on the actual and predicted condition of the infrastructure and provides the foundation for completely new maintenance models. In this way, Vossloh is changing from a provider of individual services to a guarantor of maximum track availability. Rail infrastructure conditions are monitored on an ongoing basis to provide valuable insights which are incorporated into the continuous product development and improvement process.

A sustainable and efficient organization

The third and final building block of our strategy is largely concerned with the efficiency and sustainability of our approach to providing services. This covers aspects such as the ongoing optimization of process landscapes, making continuous efficiency improvements in all areas of the company and the targeted establishment and expansion of competencies which are required for success in the digital realm and other areas. Topics relating to leadership culture and, in particular, sustainability are also underpinned by detailed initiatives and therefore given even greater focus.

Leading rating agencies already evaluate our sustainability performance as excellent. This is also clear from the EU Taxonomy: 100 percent of our Group sales are taxonomy-eligible and a remarkable 64 percent of Vossloh's sales revenues are taxonomy-aligned. This means that Vossloh is making an important contribution to achieving the climate targets under the European Green Deal. In addition to environmental and climate protection, the main areas being addressed by the organization from a sustainability perspective include occupational health and safety, human resources management, responsible supply chains, sustainable products and services as well as social responsibility. One of our stated goals is to be climate neutral by 2030 (scope 1 and 2).

Our vision is to make the world a better place through sustainable, safe and demand-driven rail mobility. This is what Vossloh stands for and the benchmark by which we are measured.



THE PRODUCTS AND SERVICES: TAILOR-MADE AND INNOVATIVE.

Particularly during difficult times, the foundation of our long-term success remains a product and service portfolio that sets itself apart from the competition for the benefit of the customer as well as technological leadership and a commitment to innovation. We support our customers and are playing our part in shifting more transport to rail and making sure that trains run on time.

Due to a number of factors that restrict the construction of new rail lines, ensuring the availability of existing rail networks is a top priority for network operators. The challenge lies in making the network more reliable at the same time, despite higher utilization.

Vossloh struck a chord in September 2022 with its presentation at InnoTrans, the world's largest trade fair for rail and transport technology, and proved that "enabling green mobility" is far more than just a corporate motto. We identified and showcased innovative solutions which address the most pressing challenges facing customers in terms of the performance and availability of rail tracks in the Advanced infrastructure, Future turnout environment and Smart maintenance topic zones.

New standard for environmentally friendly infrastructure

Vossloh's M tension clamp for rail fastening systems sets a new standard. With a significantly higher resonance frequency, the characteristic design with the convex spring arms solves the issues faced by increasingly busy tracks. The new generation uses less resources, places less stress on the material during bending, has improved properties and is more resilient. The production and transport process also involves far lower CO_2 emissions than the previous generation. The new type of composite tie (Engineered Polymer Sleeper, EPS) also offers similar advantages as a sustainable alternative to conventional wooden ties that conserves resources. The material developed by Vossloh consists of sand and almost exclusively recycled raw materials. The product is fully recyclable at the end of its 50-year lifecycle. This provides customers with an alternative to wooden ties in situations where traditional concrete ties cannot be used.

The switches of the future anticipate failure

Vossloh is making great strides with the globally acclaimed showcase project for switch monitoring in Sweden. The validation process for the sensors, gateways, cloud applications and algorithms was completed in 2022. The order placed in 2020 by the infrastructure operator Trafikverket is a multiyear contract and covers a total of 1,000 switches in the Swedish network. The Vossloh solution monitors, among other things, vibrations in the switch when a train passes in combination with speed measurement and a train detection algorithm. After the rollout, the customer will be able to permanently monitor the switches in the network and significantly reduce the rate of unforeseen failures. Keeping switches running reliably is a key element of reliable rail operations. Monitoring solutions from Vossloh detect disruption in advance to facilitate preventive maintenance and are already in use worldwide in both regional transportation and high-speed networks.

Service: on schedule and now also smart

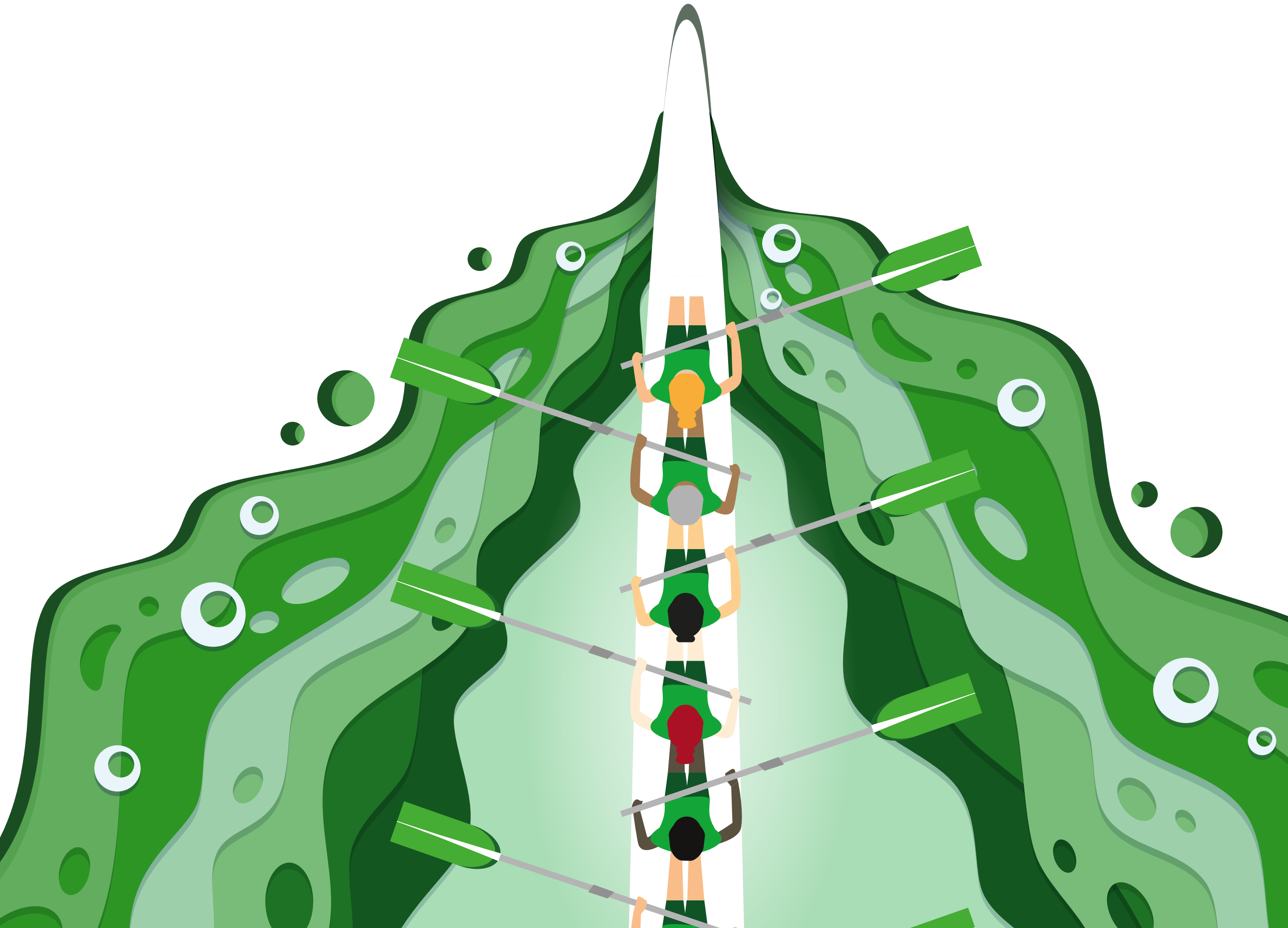
The technology used to grind rails at speeds of up to 80 km/h without disrupting rail operations is only available from Vossloh under the name High-Speed Grinding (HSG). A digital dimension will be added to the preventive rail maintenance on Deutsche Bahn's heavily used lines in 2023. We are now using smart HSG trains equipped with measuring and testing technology to record important track condition data while they are in operation. In addition to preventing track defects and significantly extending rail lifecycles, using the smart HSG machines on a regular basis will provide a growing set of data which can be used for tailored condition-based repairs and predictive track maintenance. In urban networks, this technology has already proven itself extensively in the form of the smart HSG-city.

Green Mobility

At Vossloh, we are working every day to enable green mobility and bridge the gap between the steadily growing global demand for extra transport capacity and the careful use of our natural resources. This means we are well equipped to meet the increasingly stringent demands of our customers in this regard. This is demonstrated by all of the orders in which customers were impressed not only by our technologically sophisticated products and services but also with our ability to meet sustainability requirements, as well as our measurable success in terms of our sustainable product designs and manufacturing processes.

OUR TEAM:
SPECIAL, VALUED.

Satisfied and motivated employees are one of the keys to continued success. Vossloh employees share a common set of values: passion, excellence, entrepreneurship, trust and respect as well as sustainability. We have the Vossloh factor.



What motivates us? We all share the vision of making the world a better place by playing our part in green mobility. Our shared values provide both a solid foundation and effective boundaries: passion is the driving force behind decisive action. At Vossloh, we consider excellence to be a process rather than an outcome. We constantly strive to do things better today than we did yesterday. Entrepreneurship means identifying and pursuing opportunities. Trust and respect are essential to the success of any team. Finally, sustainability reflects our commitment to taking responsibility and caring for the world around us.

The Vossloh factor – in brief

The management companies of our divisions are each deeply rooted in the industrial history of the countries where they are located – some of their histories go back over 100 years. Today, fostering regional ties and proximity to the team in manageable structures goes hand in hand with the advantages of the capital market-oriented Group. At Vossloh, we combine the best of both worlds. Team spirit, opportunities to advance rapidly to take on responsibility in specialist and management roles and global development prospects are three key factors that make a job attractive.

Clear principles for employee interactions

Our five values come to life when people embody them in their interactions. Vossloh has formulated clear management principles for this purpose. "Value – Improvement – People" apply to all employees and in all directions: We create Value for Vossloh, drive constant Improvement and we are all close to our People. We create value by focusing on the customer, setting ourselves challenging goals and striving to achieve results. We accomplish continuous improvement by challenging the status quo, taking and encouraging responsibility and tolerating and learning from mistakes. We become a team by providing a sense of purpose and orientation, encouraging top performance, celebrating achievements and caring for our employees.

Growing with the company

The demands faced by our company and conditions of the market are subject to increasingly rapid change. We are committed to providing an environment where our employees can grow along with the company. That's why we provide them with ongoing training along with the right tools and a pleasant working environment to help them master new tasks. We have made training content available to our workforce not only in person, but also online for several years. We encourage knowledge sharing, collaboration and networking.

Source of innovation

Employees play a decisive role in gaining a competitive edge. They are the source of every single innovation. Innovation, in turn, creates considerable value for customers and therefore also for Vossloh. Ideally, these innovations go beyond not just Vossloh's current range of products and services but also beyond that of the competition. In addition to giving our employees flexibility, Vossloh has also established rules for the innovation process that ensure reproducible results and guide the most promising projects through to a marketable product. We believe that a standardized assessment approach and knowing what other divisions are currently working on are crucial for targeted innovations. This allows us to develop solutions jointly, transparently and across divisions. We also involve our customers from the outset in order to incorporate their knowledge, ideas and needs into the process. The innovation process ensures that resources are controlled in a targeted customer-focused manner and used to create value.

THE WAY WE WORK:
SUSTAINABLE AND EFFICIENT.

Vossloh has proven itself to be exceptionally resilient through many crises and challenges. Vossloh owes this resilience to supply chain disruptions and hikes in material and energy prices, among other things, to its continuous drive towards improved efficiency and the cost discipline that we have firmly established within the company in past years. Both are essential building blocks of our success.

Vossloh is increasing its focus on interdisciplinary thinking and ever closer cooperation across business units to best meet customer requirements and offer solutions from its entire portfolio. This cooperation is based on our One Vossloh guiding principle and the values we live by. The inclusion of sustainability into our value system reflects our ambition to avoid having a negative impact on the environment. This results in us making the best possible use of resources, which in turn benefits us economically.

State-of-the-art production with the environment in mind

The best possible value stream, state-of-the-art production processes, more in-house value creation and the establishment of competence centers where sensible: Vossloh consistently relies on highly efficient manufacturing with a high degree of automation and ecologically sound processes.

At the new leading factory for rail fastening systems in Werdohl, every single process is designed to minimize energy and water consumption, use environmentally friendly materials, establish supply chains that are as regional as possible and, last but not least, reduce emissions.

We rely on the division of labor in order to produce complex systems such as switches. This is based on the idea of having competence centers for all critical trades, creating hubs for recurring processing steps and ensuring that units are assembled close to the customer.

Platforms for efficient collaboration

In the age of digitalization, high-performance information technology also plays an important role in our business success. Vossloh's strategy therefore includes providing a stable digital backbone for all of our business activities, creating platforms for internal collaboration and developing digital tools for new business models. Our proprietary Vossloh analytics platform, for example, is a cloud-based application we can use to process, analyze and prepare large volumes of data to identify specific recommendations for our customers. We have diligently prepared a standardized ERP system for all divisions in partnership with international teams. This system will start rolling out in 2023 and will enable everyone at Vossloh to work together quickly, easily and across borders.

Efficiency initiative a great success

Vossloh launched the „Fit 4 Future" Group-wide efficiency initiative with the support of its employees in 2021. Employees can submit their ideas and assist with its implementation. Vossloh welcomes proposals for measures that demonstrably increase the efficiency of daily work. The aim of the Fit 4 Future initiative is to avoid wasting materials and energy, effort, money and time. The Eduard Vossloh Prize is awarded to the three best ideas at the end of each fiscal year. A special prize is awarded for the best idea on the topic of sustainability. The initiative has become a huge success; nearly 1,000 ideas were submitted in 2022 and many of them have been implemented. In addition to making important contributions to our operational excellence and innovative product improvements, these ideas have also lead to significant cost savings and efficiency improvements.

Local contacts, global competence

Vossloh adopted establishing a globally uniform customer-facing image as a principle on January 1, 2023, and has restructured its sales worldwide. Vossloh customers in many regions of the world now have a single point of contact as a representative for Vossloh's entire portfolio. These local contacts know and understand their customers' needs and can draw on Vossloh's global resources as a "track expert" to solve their problems.

VOSSLOH: A GLOBAL MARKET LEADER WITH OUTSTANDING PROSPECTS.

Vossloh is in a good position even though, as an internationally operating Group, we have been affected in many ways by the upheaval unleashed by global political developments. For the first time in our history, we generated more than €1 billion in sales revenues in our core business rail infrastructure in the 2022 fiscal year. Orders received and order backlog, important indicators for future sales revenues, both reached record levels.

We did our homework for our transformation into a focused provider of rail infrastructure solutions. Last but not least, we worked together with a large in-house team to establish a clear strategy and put together a plan for its implementation. This strategy provides clear guidance for everyone at Vossloh. We streamlined our processes to make them more efficient, raised cost awareness, expanded our digital expertise and pressed ahead with groundbreaking innovations.

As it's simply inconceivable to imagine a world without mobility and the decarbonization of the transport sector is a key to limiting global warming, the rise of rail-based transport is unavoidable. The markets for Vossloh's products and services will grow strongly as new lines are built and operators make more use of existing networks.

Here at Vossloh, we are convinced that we will continue to grow at a faster pace than the rail infrastructure market. We have everything in place to guarantee our continued success: a global presence, consumer confidence, a unique combination of products, services and digital applications from a single source, a systemic understanding of integrated problem solutions, a commitment to innovation and, above all, the right people.

Green mobility is part of our identity. We firmly believe that this will make all the difference – for ourselves, for future generations, for society and for our investors. This drive gives us the energy not only to benefit from change, but to actively shape it.

Prof. Dr. Rüdiger Grube
Chairman of the Supervisory Board

Supervisory Board of Vossloh AG

Prof. Dr. Rüdiger Grube, *Chairman,*
Managing Shareholder of Rüdiger Grube International Business Leadership GmbH and former Chairman of the Executive Board of Deutsche Bahn AG, Hamburg

Ulrich M. Harnacke, *Vice Chairman,*
Indepedent Accountant, Tax Advisor and Business Consultant, Mönchengladbach

Dr. Roland Bosch, *Managing Director of WOLFF & MÜLLER Holding GmbH & Co. KG, Königstein/Taunus*

Marcel Knüpfer, *Technical Administration Specialist and shift supervisor, Chairman of the General Works Council of Vossloh Rail Services Deutschland GmbH and Member of the Group Works Council, Zwenkau*

Andreas Kretschmann, *Certified Social Security Professional, Chairman of the Group Works Council and Member of the Works Council of Vossloh Fastening Systems GmbH, Neuenrade*

Dr. Bettina Volkens, *self-employed Consultant and Member of various Supervisory Boards, Königstein/Taunus*

Report of the Supervisory Board

Dear shareholders,

Once again in the 2022 fiscal year, the Supervisory Board discharged the duties incumbent upon it pursuant to the law and the Articles of Incorporation with due care, continually monitored the work of the Executive Board and advised the Executive Board on the company's management. The Executive Board met its information obligations and regularly informed the Supervisory Board of all the issues relevant to Vossloh AG and the Group with regard to corporate strategy, planning, business development, the ever-changing risk situation, and compliance on a comprehensive and prompt basis, in written and in verbal form. This also included information about deviations in the actual development from the previously reported targets and deviations in business performance from the plans.

The Supervisory Board discussed the Executive Board's reports in detail and verified the plausibility of the economic situation depicted in these reports as well as the development prospects of the Group, the individual divisions/business units and the key investees in Germany and abroad together with the Executive Board. The Supervisory Board was involved in all decisions of significance to the company and was therefore assured at all times of the legality, appropriateness and regularity of the work of the Executive Board. At all times, the Supervisory Board members had sufficient opportunity to critically examine and comment on the reports and draft resolution proposals presented by the Executive Board. Insofar as the approval of management decisions or measures was required pursuant to statutory regulations, the Articles of Incorporation or the Rules of Procedure, the members of the Supervisory Board examined the resolution proposals and granted the necessary approval.

The Executive Board also informed the Supervisory Board of significant events between meetings. In addition, there was a regular and close exchange of information between the Chairman of the Supervisory Board and the CEO outside of meetings. In this way, the Supervisory Board was always informed of the intended business policies, the business plans including financial, investment and staff planning, profitability, the business situation, the corporate strategy, the sustainability strategy and the overall situation of the company and the Group.

Focus of the meetings

Six meetings were held in the 2022 fiscal year. The Supervisory Board convened for five ordinary meetings on March 16, May 17, September 12 and 13 and November 24, 2022.

An extraordinary meeting was held on April 13, 2022. Almost all the Supervisory Board meetings were attended by all of the members of the Supervisory Board. Dr. Bettina Volkens was unable to attend two meetings due to scheduling conflicts. Attendance was therefore 94.44 percent during the year under review. Every meeting was held in person with the exception of the extraordinary meeting in April, which was held by video conference. The members of the Supervisory Board were also in regular contact for the purpose of discussing and preparing for meetings. The Executive Board members attended the meetings of the Supervisory Board; some parts of the meetings were not attended by members of the Executive Board. The Supervisory Board also heard from experts and individuals on specific topics, such as the auditor at the balance sheet meeting.

In the last fiscal year, the Supervisory Board and Executive Board discussed the further development of the Vossloh Group at every meeting. In addition, the Executive Board reported on the business situation in all the meetings and provided detailed information regarding the development of sales revenues and earnings in the individual business units, on business development opportunities and risks, and on key managing measures. The Supervisory Board also addressed the impact of the changes in the price of materials and energy on the Group on a regular basis, in addition to measures designed to minimize the negative impact on the net assets, financial position and results of operations of Vossloh. The Supervisory Board also continually addressed the status of the ongoing civil proceedings relating to earlier anticompetitive agreements, compliance issues and the ongoing development of the Vossloh Compliance Management System. The war in Ukraine, the ongoing COVID-19 pandemic and their impact on the business situation were also addressed on a regular basis.

The Supervisory Board also focused on the following issues in the individual meetings:

The balance sheet meeting on March 16, 2022, considered in particular the auditing of the separate and consolidated financial statements for 2021, the remuneration report required in accordance with the German Stock Corporation Act (AktG), as well as the format, agenda and the draft proposals for the virtual Annual General Meeting on May 18, 2022. The Supervisory Board also used this meeting as an opportunity to discuss preparations for the Annual General Meeting, remuneration for members of the Executive Board, a digitalization project, cybersecurity and staffing topics.

At the extraordinary meeting on April 13, 2022, the Supervisory Board discussed the implementation of an innovation and investment project at Skamo, the Fastening Systems business unit company located in Poland, and approved the project after a thorough discussion and assessment.

The agenda of the meeting on May 17, 2022, included regular reporting topics along with changes in procurement prices, their impact on business activities and the discussion of a related package of measures. The Supervisory Board also prepared the virtual 2022 Annual General Meeting and primarily focused on staffing topics.

The meeting on September 12, 2022, addressed regular reporting topics in addition to reforms to the German Corporate Governance Code (GCGC) and staffing topics. The Supervisory Board held a strategic meeting on the following day (September 13, 2022) to discuss the alignment of the Group and the corporate strategy. The Supervisory Board and Executive Board discussed the corporate strategy, in addition to reviewing the extent to which the strategy had been implemented and making any necessary changes. Strategic measures in relation to digitalization, personnel development, sustainability and the Executive Board's acquisition strategy were also discussed in detail in this context.

At its final ordinary meeting of the year on November 24, 2022, the Supervisory Board focused on standard reporting topics, business development in the fiscal year under review as well as planning for the years 2023 through 2025. The Supervisory Board approved the budget for 2023 following an in-depth examination and discussion with the Executive Board. The Supervisory Board also performed a self-evaluation and assessed its efficiency. In addition, the Supervisory Board made changes to requirements and targets related to the composition of the Supervisory Board and documented the extent to which the competency profile of the Supervisory Board had been implemented in the form of a qualification matrix. Together with the Executive Board, the Declaration of Conformity with the 2022 GCGC was approved and an investment project was discussed. Furthermore, the relevant performance targets for the Executive Board remuneration were defined for the 2023 fiscal year.

The Supervisory Board and the company are committed to providing support for new members and continuous training for existing Supervisory Board members. The company provides the members of the Supervisory Board with an appropriate level of support in this regard. The March meeting of the Supervisory Board was held at the site in Werdohl. The Supervisory Board members visited the new factory of the future at the main site of the Fastening Systems business unit and learned more about the business unit, relevant technologies, the production process and research & development and came together with the management of the business unit. The meetings in September were held in Stuttgart in conjunction with a visit to the Stuttgart 21 construction site of the customer Deutsche Bahn.

Supervisory Board committees

The Supervisory Board has formed three committees in order to execute its duties efficiently: the Personnel Committee, the Audit Committee and the Nomination Committee. These committees focus on the issues assigned to them and prepare decisions for plenary meetings where necessary. Insofar as is permissible by law and considered appropriate by the Supervisory Board, the Supervisory Board has also delegated its decision-making authority to the committees in certain cases. The committee chairs report on relevant issues and the results of discussions in the plenary Supervisory Board meeting following each committee meeting. The minutes of the meetings of the Audit Committee are made available to the Chairman of the Supervisory Board.

The Audit Committee convened on six occasions in the fiscal year under review. Almost all Audit Committee meetings were attended by all of the committee members. Mr. Andreas Kretschmann was unable to attend one meeting. Attendance was therefore 94.44 percent during the year under review. Half of the meetings were held in person, while the other half were held as video conferences. Almost every meeting was attended by representatives of the auditor and the individuals responsible for Accounting as well as Legal Affairs and Compliance at Vossloh AG. A discussion was held with the auditor without the members of the Executive Board being present. The Heads of relevant central divisions were available for reports and to answer questions. Other experts were asked to attend in order to provide input about specific agenda items.

Among other things, the Audit Committee focuses its activities in particular on auditing the company's accounts, the separate and consolidated financial statements prepared by the Executive Board, the combined management report, the dependent company report (Section 312 AktG), the proposal for the appropriation of net earnings and related party transactions which the Supervisory Board has charged the Audit Committee to monitor.

Following an extensive discussion in the presence of the auditor based on the auditor's reports for the audit of the annual financial statements of Vossloh AG and the Vossloh Group, the combined management report and the remuneration report, the Audit Committee decided to approve the remuneration report and recommended the approval of the consolidated financial statements, the financial statements of Vossloh AG and the combined management report for the 2021 fiscal year to the Supervisory Board during its meeting on March 16, 2022. At its meetings on April 27, August 1 and October 26, 2022, the Audit Committee discussed the half-year report and the quarterly statements with the Executive Board before their publication.

The company's relationship with the auditor also falls within the responsibility of the Audit Committee. The committee submitted a proposal to appoint an auditor to the full Supervisory Board on March 16, 2022, and awarded auditing responsibility to the auditor elected by the Annual General Meeting as part of the meeting on September 12, 2022 and agreed the focal points of the audit and the remuneration with the auditor. The committee also monitored the auditor's independence and assessed the quality of the audit. The auditor may only be contracted to perform non-audit services subject to the mandatory approval of the Audit Committee. The relevant guideline was adapted in the reporting year and approved by the Audit Committee.

In all of its meetings, the Audit Committee also dealt with the key risks and legal and compliance issues. The Audit Committee discussed the main risks identified within the Group and the changes in material and energy prices in detail with the Executive Board, as well as the necessity and adequacy of the risk provisioning, in particular also for risks due to legal disputes relating to earlier anticompetitive agreements. Each of the meetings provided opportunities for discussion between the members of the committee and the auditor without the members of the Executive Board being present. The Audit Committee also considered compliance issues continuously and in depth, and received comprehensive information about related issues, how they were being handled and the ongoing monitoring and improvement of Vossloh's Compliance Management System. The Audit Committee discussed the internal control system and the risk management system along with the extent to which they are adequate and effective. The Audit Committee also addressed sustainability-related issues as well as any related opportunities and risks for the Group. The Audit Committee focused on compliance topics and issues related to CSR reporting. Internal Audit provided the Audit Committee with information about its activities during the 2022 fiscal year at the meeting on November 24, 2022.

The Nomination Committee did not meet in the year under review as there were no changes in the members of the Supervisory Board. The Personnel Committee met in person on September 12, 2022 and November 24, 2022. Almost all members attended the meetings. Dr. Bettina Volkens was unable to attend one of the meetings. The total attendance rate was therefore 87.50 percent. The meetings discussed long-term succession planning for the Executive Board, with a particular focus on the planned reappointment of Executive Board members Dr. Thomas Triska and Mr. Jan Furnivall and the extension of their contracts.

Corporate Governance and Declaration of Conformity

The Supervisory Board is committed to ensuring effective corporate governance. At its meeting on November 24, 2022, the Supervisory Board considered the recommendations of the GCGC and, together with the Executive Board, issued a Declaration of Conformity in accordance with Section 161 AktG. This was made permanently accessible on the company's website (see page 31 of the annual report). With two exceptions, Vossloh AG has been in compliance with all of the recommendations laid out in the December 16, 2019 and April 28, 2022 versions of the GCGC since submitting its most recent Declaration of Conformity in November 2021 and will remain in compliance in future. Details of corporate governance within the company can be found in the Declaration on Corporate Governance and the Corporate Governance Report (starting on page 28 of the annual report).

Separate and consolidated financial statements for 2022

The annual financial statements of Vossloh AG in accordance with German accounting standards, the consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) applicable in the EU and the combined management report for Vossloh AG and the Group for the 2022 fiscal year, including the accounting, were examined by the auditor duly appointed by the Annual General Meeting on May 18, 2022, Deloitte GmbH Wirtschaftsprüfungsgesellschaft based in Munich (Düsseldorf office), and were each issued with an unqualified audit opinion. In its audit opinion, the auditor concluded that the Executive Board had taken the necessary steps to put in place an appropriate risk identification system as required by Section 91 (2) AktG and that the system was suitable for identifying going concern risks early on.

The auditor also examined the dependent company report prepared by the Executive Board (Section 312 AktG) in accordance with Section 313 AktG and issued the following audit opinion: "After due and proper examination and assessment, we hereby confirm, first of all, that the information contained in the report is correct and second, that payment made by the company for the transactions stated in the report was not inappropriately high." The Executive Board and Supervisory Board also prepared the remuneration report in accordance with Section 162 (1) AktG. This was also was audited by the auditor and issued with an unqualified auditor's opinion.

The financial statements including the nonfinancial Group statement (Section 315b of the German Commercial Code, HGB) and the auditor's reports were distributed to the members of the Supervisory Board in good time prior to the meeting held on March 13, 2023, to approve the financial statements. During the meeting, the auditor reported on the key findings of their audit and provided additional information. The Supervisory Board comprehensively discussed all the issues that arose in relation to these documents following the Audit Committee's preparations and in the presence of the auditor. The auditor also reported on the Vossloh Group's early risk detection system. The auditor additionally read and acknowledged other information including the Declaration of Conformity in accordance with Section 161 AktG, the Declaration on Corporate Governance/ Corporate Governance Report and the nonfinancial statement of the Group (Section 315b HGB) and found nothing that suggested this information constituted a material misrepresentation. The Supervisory Board also contracted Deloitte GmbH Wirtschaftsprüfungsgesellschaft to perform a voluntary audit of its nonfinancial Group statement (Section 315b HGB) in accordance with ISAE 3000 (Revised) to achieve a certain degree of assurance therefor, as well as the remuneration report in accordance with Section 162 (1) AktG. These did not give rise to any objections.

The Supervisory Board likewise reviewed the annual financial statements submitted by the Executive Board, the consolidated financial statements and the combined management report for Vossloh AG and the Vossloh Group for the 2022 fiscal year including the nonfinancial Group statement (Section 315b HGB), the dependent company report including the Executive Board's closing statement, and the proposal for the appropriation of net earnings. According to the final result of its own review, the Supervisory Board raised no objections. The Supervisory Board approved the annual financial statements and consolidated financial statements on December 31, 2022. The annual financial statements were thus adopted on December 31, 2022. The Supervisory Board concurred with the combined management report, in particular the statements on the company's continued development and the disclosures pursuant to Sections 289a and 315a HGB, and with the dependent company report. The Supervisory Board approved the Executive Board's proposal for the appropriation of the 2022 net earnings, which recommended the payment of a dividend in the amount of €1.00 per dividend-bearing share.

The Supervisory Board would like to thank the Executive Board and all employees of the Vossloh Group for their dedication in the very successful 2022 fiscal year. Despite the wide range of challenges facing the company, namely the impact of geopolitical tension and upheaval and price increases in material and energy markets, Vossloh performed superbly in the past fiscal year.

Werdohl, Germany, March 13, 2023

The Supervisory Board
Prof. Dr. Rüdiger Grube
Chairman

Declaration on Corporate Governance/ Corporate Governance Report

The following Declaration on Corporate Governance in accordance with Sections 289f (1) and 315d HGB is the central element of the corporate governance reporting process (Principle 23 of the German Corporate Governance Code (GCGC) as per April 28, 2022). The Executive Board and Supervisory Board jointly issue the Declaration on Corporate Governance and are each responsible for the relevant sections of the Declaration.

Management and control structure

Vossloh AG is subject to the provisions of Germany's Stock Corporation Act (AktG), capital market legislation and codetermination laws that apply in Germany as well as its own Articles of Incorporation. As with all German stock corporations, Vossloh AG has a dual management and monitoring structure as reflected in the two bodies, the Executive Board and the Supervisory Board. The Annual General Meeting is responsible for important fundamental decisions made by the company. All three bodies are obligated to act in the best interests of the company and its shareholders.

Executive Board

The three members of the Executive Board are responsible for jointly running the company. As CEO, Mr. Oliver Schuster is responsible for coordinating the work of the Executive Board in the central areas of Strategy and M&A, Media Relations, Legal Affairs and Compliance, IT and Digital Business, Innovation and Research & Development, Human Resources and Internal Audit. As Chief Financial Officer, Dr. Thomas Triska is responsible for Accounting and Taxes, Controlling, Treasury and Investor Relations. As Chief Operating Officer, Mr. Jan Furnivall is responsible for Sales, Technology, EHS/Sustainability and Marketing/Communication. Divisions are also allocated to individual members of the Executive Board. Mr. Oliver Schuster oversees the Core Components division, Dr. Thomas Triska the Customized Modules division and Mr. Jan Furnivall the Lifecycle Solutions division. More information on the members of the Executive Board of Vossloh AG can be found on page 176 of this annual report.

The work of the Executive Board is regulated by the Executive Board's Rules of Procedure. The members of the Executive Board work cooperatively and inform one another on an ongoing basis about important measures and events within their respective areas of responsibility. The entire Executive Board makes decisions regarding all significant issues. Potential conflicts of interest are immediately made known to the Supervisory Board and the other Executive Board members. Secondary employment requires the prior approval of the Supervisory Board.

The Supervisory Board is responsible for the appointment and dismissal of the Executive Board members. In this regard, the Supervisory Board observes specific target figures stipulated by the German Act on Equal Participation of Men and Women in Executive Positions in the Public and Private Sectors and also the age limit stipulated for members of the Supervisory Board in the Rules of Procedure (i.e. the statutory retirement age). The Supervisory Board discusses the issue of long-term succession planning on a regular basis (at least once per fiscal year) in order to identify and develop suitable female and male candidates and so that vacancies can be filled as quickly as possible with the most suitable candidate.

Vossloh AG has concluded D&O insurance policies against economic loss for Executive Board and Supervisory Board members with a deductible amounting to 10 percent of the loss up to one-and-a-half times the fixed annual remuneration of the board member in question.

Supervisory Board

The Supervisory Board, which comprises six members in accordance with Article 10 (1) sentence 1 of the Articles of Incorporation, is composed subject to the provisions of the AktG and the German One-Third Participation Act (DrittelbG). Two thirds of its members are shareholder representatives and one third is made up of employee representatives. In accordance with the recommendations of the GCGC, the shareholder representatives were elected individually. The terms in office of all the current Supervisory Board members end on conclusion of the Annual General Meeting in 2023, at which a resolution will be passed to formally approve the actions of the Supervisory Board members in the 2022 fiscal year. More information on the members of the Supervisory Board of Vossloh AG, including how long they have been on the Board, can be found on page 177 of this annual report.

The Supervisory Board oversees and advises the Executive Board on its management of business and discusses business development, planning, the strategy and its implementation, risk management and compliance issues with the Executive Board at regular intervals. It approves the annual plan, adopts the annual financial statements of Vossloh AG and approves the consolidated financial statements, in addition to deciding whether or not to approve related party transactions in accordance with Section 111b AktG. Furthermore, certain material transactions and measures regulated by the Executive Board's Rules of Procedure are subject to the approval of the Supervisory Board. The work methods of the Supervisory Board are regulated by the Rules of Procedure, which are published on the company's website.

The Supervisory Board most recently stipulated concrete targets for its composition at its meeting on November 24, 2022, and reviewed and amended the competency profile for the body as a whole. The "Requirements and Objectives for the Composition of the Vossloh Aktiengesellschaft Supervisory Board" are published on the company's website and also include the diversity concept. With regard to diversity, the Supervisory Board is setting its sights on a composition within the parameters of the company-specific situation that takes into account a varied career and international experience and, in particular, the appropriate involvement of all genders. On November 25, 2021, the Supervisory Board set itself a target of at least 16.67 percent women (one female member of the Supervisory Board) for the target period between December 15, 2021 and December 14, 2026. This target is currently being met.

The Supervisory Board's other requirements and objectives regarding its composition relate, in addition to other factors, to the full board's expertise, the independence of its members, potential conflicts of interest, availability, an age limit (usually 70) and the duration of board tenures (usually no longer than three terms). In the opinion of the Supervisory Board, the current composition of the body as a whole fulfills the stated requirements and objectives. The personal and professional qualifications of each member of the Supervisory Board are listed below:

	Prof. Dr. Rüdiger Grube	Ulrich M. Harnacke	Dr. Roland Bosch	Marcel Knüpfer	Andreas Kretschmann	Dr. Bettina Volkens
Management and monitoring of medium-sized or large, international companies	■	■	■			■
Industry and corresponding value chains	■	■	■	■	■	
Research and development (particularly in the area of relevant technologies for Vossloh)			■	■	■	
Production, marketing, sales				■	■	
Significant markets for Vossloh	■		■	■	■	■
Capital market	■	■	■			
Corporate transactions (Mergers & Acquisitions)	■	■	■			■
Sustainability (Environment, Social)	■	■	■	■	■	■
Accounting and financial reporting		■	■		■	
Auditing		■	■			
Controlling, risk management		■	■			
Corporate Governance, Compliance	■	■	■	■	■	■
Supervisory Board member since	2/2020	5/2015	5/2020	6/2020	8/2017	5/2020

To maintain the independence of its members, the Supervisory Board has determined that more than half of the shareholder representatives should be independent from the company and the Executive Board in accordance with Recommendation C.7 of the GCGC. In accordance with Recommendation C.9 Sentence 2 of the GCGC, at least one shareholder representative should be independent from the majority shareholder of Vossloh AG. The Supervisory Board concludes that as of December 31, 2022, all shareholder representatives on the Supervisory Board were deemed independent within the meaning of Recommendations C.7 and C.9 of the GCGC. The election proposals put to the Annual General Meeting by the Supervisory Board are to consider the "Requirements and Objectives for the Composition of the Vossloh Aktiengesellschaft's Supervisory Board" as adopted by the Supervisory Board.

The Supervisory Board performs its duties both as a plenary body and through its three current committees, which it established to improve the efficiency of its activities. The committee chairs report on relevant issues and the results of discussions in the plenary Supervisory Board meeting following each committee meeting.

The Personnel Committee currently has four members: Prof. Dr. Rüdiger Grube, Dr. Bettina Volkens, Mr. Ulrich M. Harnacke and Mr. Andreas Kretschmann. The Personnel Committee is mainly responsible for Executive Board matters. It prepares personnel decisions, resolutions and the reviews of the full Supervisory Board regarding the remuneration system and the total remuneration of the individual Executive Board members. The Chairman of the Supervisory Board, Prof. Dr. Rüdiger Grube, is simultaneously the Chairman of the Personnel Committee and deemed independent within the meaning of Recommendation C.10 of the GCGC.

The Audit Committee members are Mr. Ulrich M. Harnacke, Dr. Roland Bosch and Mr. Andreas Kretschmann. The Chairman of the Audit Committee is Mr. Ulrich M. Harnacke. The Audit Committee is first and foremost responsible for monitoring accounting, the accounting process, the adequacy and effectiveness of the internal control system, the risk management system, the internal audit system, the financial statement audits and compliance. The Audit Committee prepares the Supervisory Board's auditing of the annual and consolidated financial statements, the combined management report and the audit reports of Vossloh AG and the Vossloh Group. The quarterly statements and half-year report are discussed jointly by the Audit Committee and the Executive Board prior to publication. The Audit Committee recommends auditors to the Supervisory Board and commissions audits for the annual financial statements and consolidated financial statements and reviews of interim reports. It also works with the auditor to define which areas their audit will focus on, and assesses the quality of audits based on a range of criteria. The Chairman of the Audit Committee also remains in contact with the auditor on a regular basis outside of the meetings of the Audit Committee and exchanges information with the auditor, in particular on the progress of the audit. Furthermore, the Audit Committee obtains regular reports directly from the Internal Audit department and the Chief Compliance Officer. The members of the Audit Committee also exercise their right to information in accordance with Section 107 (4) sentence 4 AktG. In addition, the Audit Committee reviews related party transactions in accordance with Section 111a (2) sentence 1 and 2 AktG. Members of the Audit Committee have expertise in the areas of accounting and auditing, each including sustainability reporting. Mr. Ulrich M. Harnacke is a tax advisor and auditor as well as the former managing director of Deloitte GmbH and former member of the Executive Board of BDO AG. As a financial expert with expertise in the area of auditing and accounting, he meets the requirements stipulated in Section 100 (5) AktG as well as Recommendation D.3 of the GCGC; this also includes sustainability reporting and the related audits. Dr. Roland Bosch is managing director of WOLFF & MÜLLER Holding GmbH & Co. KG and the former CEO of Deutsche Bahn Cargo AG. His expertise lies in a number of areas, including accounting (Section 100 (5) AktG, Recommendation D.3 of the GCGC), including sustainability reporting and the related audits.

The Nomination Committee is responsible for long-term succession planning for the Supervisory Board and for preparing candidate proposals for employee representatives on the Supervisory Board. Its four shareholder representatives are Prof. Dr. Rüdiger Grube, Dr. Bettina Volkens, Dr. Roland Bosch and Mr. Ulrich M. Harnacke. The Supervisory Board then selects the election proposals that will be presented to the Annual General Meeting for an appointment decision. The Chairman of the Nomination Committee is Prof. Dr. Rüdiger Grube.

The Supervisory Board assesses the efficiency of its activities and its committees on a regular basis by alternating between using external assistance and performing self-evaluations. The performance of the Supervisory Board and its committees was last reviewed in November 2022 on the basis of a self-evaluation. The results of this self-evaluation were extremely positive. It focused on how well the Supervisory Board members work together, the organization and work methods of the Supervisory Board and its committees and the exchange of information in the Supervisory Board.

Every Supervisory Board member is obligated to act in the company's best interests. Potential conflicts of interest must be reported to the Chairman of the Supervisory Board immediately. Members of the Supervisory Board are required to recuse themselves from any decision made by the Supervisory Board regarding them individually or related parties or companies. No member of the Supervisory Board received remuneration or benefits for services rendered personally in addition to their emoluments for their Supervisory Board activities from any company in the Vossloh Group. There are no former members of the Executive Board on the Supervisory Board of Vossloh AG.

Compliance

Vossloh considers compliance to be conduct in line with all the applicable laws and internal guidelines. As a global enterprise with a 140-year history, Vossloh has a social responsibility toward its customers, partners, employees, investors and the public. This social responsibility involves Vossloh and all its employees adhering to the applicable laws, respecting basic ethical values and acting in an exemplary fashion at all times and in all situations in the course of their work.

The Executive Board of Vossloh AG has unequivocally summed up these principles in its Compliance Commitment, which states: "Compliance with the law has absolute priority over closing a deal or achieving internal targets. We would rather forgo a business opportunity than violate the law. We will not tolerate any violation of the law or of our internal guidelines and policies and will sanction any such behavior (zero tolerance policy)." The Compliance Commitment is also published on the company's website. The Executive Board of Vossloh AG has put a Compliance Management System in place for the Vossloh Group. The Vossloh Compliance Management System is designed to identify compliance violation risks and to minimize these risks in order to prevent Vossloh and its employees from incurring damage. Anticorruption and the strict observance of antitrust regulations play a particularly important role.

Since 2007, the Vossloh Compliance Management System has been based on the Vossloh Code of Conduct, which stipulates the value of integrity and is mandatory for the entire Group and all employees. The Code of Conduct was comprehensively revised and enhanced in 2016. The latest version is available on the company's website. With this and the compliance guidelines, which apply equally throughout the Group, all the employees have a canon of rules that serves as a yardstick for their daily work and helps them make good and lawful decisions. The compliance rules are available in the Group's main languages and have been distributed to all Vossloh Group employees around the world. Based on a compliance training concept, all employees receive regular training on compliance issues that is tailored to the target group in question. Vossloh has also established a compliance e-learning program for all employees with a computer workstation.

To implement and monitor compliance, the Executive Board established the Compliance Organization, stipulating its structure, the responsibilities and tasks of the individual compliance positions, and their reporting channels in the Rules of Procedure of the Compliance Organization. The Vossloh Compliance Organization comprises the Chief Compliance Officer (supported by a Compliance Office), the Group Compliance Committee at Vossloh AG, Compliance Officers and Compliance Committees within the business units and Local Compliance Officers within the operating companies. The Chief Compliance Officer regularly reports to the Executive Board and Supervisory Board.

Vossloh set up a whistleblower hotline in partnership with an international law firm in order to uncover potential compliance violations. The whistleblower hotline allows company employees and external whistleblowers to report possible misconduct to an independent external contact (ombudsperson). The whistleblower hotline has so far been set up for 24 countries. As such, the main regions and the languages spoken within the Vossloh Group are essentially covered. The Chief Compliance Officer follows up all reports and implements appropriate measures where necessary. The same applies to reports which employees can make internally. Employees can contact Vossloh's Compliance Office directly.

The Chief Compliance Officer and the Group Compliance Committee continually review the appropriateness and effectiveness throughout the Group of the Compliance Management System. In the 2017 fiscal year, the Vossloh Group's Compliance Management System system was also subjected to a comprehensive audit in accordance with Assurance Standard 980 of the Institute of Public Auditors in Germany (IDW) (IDW AsS 980) by KPMG AG Wirtschaftsprüfungsgesellschaft regarding the subsections of antitrust law and anticorruption. The audit was performed as an effectiveness assessment and was concluded in February 2018. KPMG confirmed that the Vossloh Group's Compliance Management System is implemented appropriately and was effective in the period under review. Vossloh has published the audit report on the company's website in the "Investor Relations" section under "Corporate Governance" > "Compliance". Additional measures related to the adequacy and effectiveness of the Vossloh Group's compliance management system are covered starting on page 98 of this annual report.

The Group Compliance Committee additionally performs regular general ad hoc audits, usually with the assistance of external auditors, in addition to risk dialogues, in order to check the adequacy and effectiveness of the Compliance Management System within the Group companies and to identify new or changed risks and any scope for improvement.

Risk and control management

The principles of good corporate governance include the responsible management of business risks as well as the environmental and social impacts of the company's activities and the sustainability goals established on this basis. The Vossloh AG Executive Board and the management teams of Vossloh Group companies have Group-wide and company-specific reporting and control systems at their disposal that ensure that such risks are recorded, assessed and managed, along with sustainability-related data. The systems are continually checked for their effectiveness, adapted to changing parameters if applicable and examined by the auditor as part of the statutory auditing requirements. As described above, the Supervisory Board and Audit Committee are regularly briefed on and involved in the risk management process. Details of risk management within the Vossloh Group can be found in the risk report section (from page 64 of this annual report). This also includes the report on the accounting-related internal control and risk management system.

Declaration of Conformity

Once again in 2022, the Executive Board and Supervisory Board of Vossloh AG dealt extensively with the recommendations of the German Corporate Governance Code. Vossloh's corporate governance practices are regularly reviewed accordingly.

The Executive Board and Supervisory Board issued the following Declaration of Conformity in November 2022:

Declaration of Conformity with the German Corporate Governance Code by the Executive Board and the Supervisory Board of Vossloh Aktiengesellschaft

Vossloh Aktiengesellschaft currently complies with all of the recommendations of the German Corporate Governance Code as amended on April 28, 2022 (GCGC) published in the Federal Gazette by the Federal Ministry of Justice on June 27, 2022, with the exceptions listed below. It will remain compliant in the future, with the exceptions listed below.

Recommendation C.4: "A Supervisory Board member who is not a member of any Executive Board of a listed company shall not accept more than five Supervisory Board mandates at non-group listed companies or comparable functions, with an appointment as Chairman of the Supervisory Board being counted twice."

Explanation: In addition to acting as the Chairman of the Supervisory Board of Vossloh AG, Prof. Dr. Grube has accepted Supervisory Board mandates at two other listed companies (Vantage Towers AG and Hamburger Hafen- und Logistik AG), and is the Chairman of the Supervisory Board at both. Prof. Dr. Grube has three additional other mandates at companies which are not listed (see disclosure on the company's website). These could be considered comparable functions in the sense of GCGC Recommendation C.4. One other mandate exists with a function that is not considered comparable. In the opinion of the Executive Board and Supervisory Board, Prof. Dr. Grube significantly enriches the company due to his outstanding expertise and many years of experience in the industry. This is not impaired by his aforementioned mandates. In particular, Prof. Dr. Grube has sufficient time to diligently fulfill his role as the Chairman of the company's Supervisory Board.

Recommendation G.10: "Taking the respective tax burden into consideration, Management Board members' variable remuneration shall be predominantly invested in company shares by the respective Management Board member or shall be granted predominantly as share-based remuneration. Granted long-term variable remuneration components shall be accessible to Executive Board members only after a period of four years."

Explanation: The Supervisory Board considers the share price-based component of the variable remuneration of the Executive Board, which currently accounts for around one third of the variable remuneration for Executive Board members, as being sufficient. The Supervisory Board takes into account the fact that, for share price-based remuneration components, changes in the share price depend not only on the performance of the Executive Board members and the company, but also on external factors over which the company and its bodies do not have any influence. The Supervisory Board takes the view that using a four-year assessment period for the long-term variable remuneration of Executive Board members (or a payout block of an additional year directly after the three year assessment period) is not appropriate, particularly in light of the fact that the GCGC recommends that the first-time appointment of Management Board members should be for a period of not more than three years – a recommendation which the company puts into practice on a regular basis.

Furthermore, since issuing the most recent Declaration of Conformity in November 2021, Vossloh AG has complied with all of the recommendations of the German Corporate Governance Code as per December 16, 2019 and April 28, 2022, with the exception of the deviations from Recommendations C.4 and G10 set out above.

This Declaration of Conformity and others from previous years are available on the Vossloh AG website.

Shareholders and Annual General Meeting

The shareholders of Vossloh AG exercise their rights at the Annual General Meeting, including their voting rights. The Chairman of the Supervisory Board usually presides over the Annual General Meeting. The Annual General Meeting makes binding decisions in all of the matters assigned to it by law, in particular on a regular basis regarding the appropriation of net earnings, formal approval of the actions of the Executive Board and Supervisory Board and the election of the auditor, as well as the approval of the remuneration report. Each Vossloh share entitles the holder to one vote at the Annual General Meeting. The shareholders may exercise their voting rights themselves at the Annual General Meeting or have them exercised by an authorized representative of their choosing or by a company-nominated proxy acting on their instructions. The voting results can be found on the company's website immediately after the Annual General Meeting.

Investor Relations

Vossloh ensures that its shareholders and other capital market participants all receive the same information in a swift and efficient manner. All the information published by Vossloh regarding the company is immediately made accessible on the company website www.vossloh.com in English and German. This applies in particular to the annual report, the half-year report, the interim quarterly statements and the invitation to the Annual General Meeting. The scheduled dates of major recurring events and publications, specifically the Annual General Meeting, annual reports and interim reports and statements, are listed in a financial calendar that is published in good time on the Vossloh AG website. The consolidated financial statements are published within 90 days of the end of the fiscal year, and the half-year report and interim statements are made public at the latest within 45 days of the end of the reporting period. If insider information arises or becomes known outside of the regular reporting that affects Vossloh and has the potential to significantly influence the stock market price of the Vossloh share, this information is made known by means of ad hoc disclosures in accordance with Article 17 of the Market Abuse Regulation. In addition, the website www.vossloh.com provides extensive and up-to-date information on the Vossloh Group and the Vossloh share.

Accounting and auditing

Vossloh Group accounting is based on the International Financial Reporting Standards (IFRS) as applicable in the EU. The annual financial statements of Vossloh AG, on the other hand, are prepared in accordance with the HGB as stipulated by law. Both the consolidated financial statements in accordance with IFRS and the separate financial statements pursuant to German accounting regulations were audited by Deloitte GmbH Wirtschaftsprüfungsgesellschaft in accordance with the German regulations and taking into account the generally accepted German auditing principles promulgated by the Institute of Public Auditors in Germany (IDW), this audit firm having been elected by the 2022 Annual General Meeting at the Supervisory Board's proposal. The audit work was contracted by the Supervisory Board's Audit Committee in accordance with the recommendations of the GCGC following verification beyond doubt of the auditor's independence. An agreement was reached with the auditor that the auditor would notify the Supervisory Board without delay of any findings or events of significance to the Supervisory Board's duties that came to light in the course of its audit and would notify the Supervisory Board of any facts identified that could make its declaration of conformity with the GCGC incorrect. No indications of any such facts were identified in the course of the audit. The condensed interim consolidated financial statements and the interim Group management report as of June 30, 2022, were subjected to an auditor's review.

Involvement of women and men in executive positions

The Supervisory Board and Executive Board set the targets outlined below for Vossloh AG in accordance with the relevant legislation (for information on the targets for the Supervisory Board, see the "Supervisory Board" section above).

On November 25, 2021, the Supervisory Board set a target of 0 percent for the Executive Board of Vossloh AG, which currently comprises three male members, for the next target period up to December 14, 2026. The Supervisory Board justified this target as follows:

"The Supervisory Board of Vossloh AG is well aware of the legal requirements related to increasing the number of women in leadership positions and its responsibilities when it comes to achieving gender equality. The Supervisory Board has set a target of 16.67 percent of places being occupied by women (equivalent to one women in the body as a whole, which is made up of six people and four shareholder representatives). Vossloh AG is not legally required to appoint a woman to the Executive Board. After carefully considering the circumstances, the Supervisory Board believes that it would currently be difficult to apply a long-term voluntary target in excess of zero.

The Supervisory Board discusses the issue of long-term succession planning on a regular basis (at least once per fiscal year) in order to identify and develop suitable female and male candidates and so that vacancies can be filled as quickly as possible with the most suitable candidate. The Supervisory Board is committed to ensuring that the Executive Board actively promotes suitable female talent. Mainly because of the small size of Vossloh AG's Executive Board, a general diversity concept is not in place for the Executive Board. Instead, the Supervisory Board makes every effort to find the most suitable candidates for vacant seats on the Executive Board on a case-by-case basis. Executive Board members are selected on the basis of a systematic selection process, which focuses in particular on expertise and personality, and numerous other features, including the diversity of the Executive Board.

The Executive Board currently consists of highly qualified senior executives who have worked for Vossloh AG for a significant amount of time and have a considerable amount of expertise in the area which they are responsible for. The Supervisory Board wishes to retain the freedom to appoint members of the relatively small Executive Board of Vossloh AG on the basis of merit as specified above. The number of women who work in the rail industry and adjacent industries is relatively small, with even fewer having relevant management experience. Vossloh AG has experienced this regrettable situation a number of times when recruiting for (leadership) positions below the level of the Executive Board, as women are generally underrepresented in the pool of applicants. Because of this situation, the Supervisory Board believes that obliging ourselves to put a minimum number of women in these positions is not compatible with the principles of selecting candidates based on merit, particularly in light of the small size of the Executive Board."

There are currently no plans for Executive Board changes or expansions. Female candidates were considered as part of the selection process when preparing for the changes to the Executive Board in November 2020.

On November 25, 2021, the Executive Board set a target for women to occupy 25 percent of positions on both the first and second management levels below the Executive Board, to be achieved by December 14, 2026. A total of 36.0 percent of positions on the first management level were held by women on December 31, 2022, meaning that this target has been reached. Women made up 33.3 percent of the second management level at the end of the 2022 fiscal year, which also exceeded the target.

Executive Board and Supervisory Board remuneration

The current remuneration system for the members of the Executive Board pursuant to Section 87(a)(1) and (2) AktG (approved by the Annual General Meeting on May 19, 2021) and the remuneration system for the members of the Supervisory Board (approved by the Annual General Meeting on the same date pursuant to Section 113(3) AktG) are available at www.vossloh.com/de/investor-relations/corporate-governance/verguetung. Both the remuneration report and the auditor's report in accordance with Section 162 AktG are available on the same page. The most recent resolutions passed by the Annual General Meeting on the remuneration system and the remuneration report are also available on the company's website. The remuneration system of Executive Board members makes a significant contribution to promoting and implementing the corporate strategy of the Vossloh Group, namely strengthening the product business and further expanding the conventional and digital service business with the aim of sustainably increasing the value of the company.

Combined management report

of the Vossloh Group and Vossloh AG as of December 31, 2022

Business and market environment

Segmentation and competitive position

Vossloh is active in rail infrastructure markets worldwide. The company provides a wide range of rail track-related services under one roof: rail fastening systems, concrete ties, switch systems and crossings as well as innovative and increasingly digital-based services for the entire lifecycle of rails and switches. Vossloh is committed to sustainable governance and climate protection and plays an important role in sustainable passenger and freight mobility with its products and services.

Its business activities are organized into three divisions – Core Components, Customized Modules and Lifecycle Solutions. The Core Components division is made up of two business units, Vossloh Fastening Systems and Vossloh Tie Technologies. The other two divisions comprise one business unit each: Vossloh Switch Systems is part of Customized Modules and Vossloh Rail Services is part of Lifecycle Solutions. You can find detailed descriptions of the individual divisions on page 48 et seq.

Vossloh holds the following competitive positions in the rail infrastructure sector:

- Vossloh is a leading global supplier and technological leader in rail fastening systems.
- Vossloh is one of the global market and technology leaders in the switches and crossings segment.
- Vossloh is a leading supplier of innovative technologies and services for the entire lifecycle of rails and switches.
- Vossloh is a leading manufacturer of concrete ties in North America and Australia.

Organization

The Vossloh Group is active around the world. Local presence and customer proximity are integral elements of our business activities. Important production sites for the rail fastening systems produced by the Fastening Systems business unit are located in Germany, China, Poland and the USA. The Tie Technologies business unit manufactures concrete ties in the USA, Mexico, Canada and Australia. The switch systems in the Customized Modules division are manufactured primarily in France, Sweden, Australia, Luxembourg, Poland, Portugal, Finland, the United Kingdom, India, Serbia and China. The majority of rail services in the Lifecycle Solutions division are provided in Western and Northern Europe, in addition to China.

Vossloh operates globally via sales companies and branches. The company enters into joint ventures and cooperation agreements with expert local partners on a case-by-case basis. Key Group companies and management companies are:

- Vossloh Fastening Systems GmbH, Werdohl, Germany, and Rocla Concrete Tie, Inc., Lakewood, Colorado, USA, for the Core Components division
- Vossloh Cogifer SA, Rueil-Malmaison, France, for the Customized Modules division as well as
- Vossloh Rail Services GmbH, Hamburg, Germany, for the Lifecycle Solutions division.

Controlling system

The most significant financial performance indicators for the Vossloh Group are value added, sales revenues, EBIT (earnings before interest and taxes) and EBIT margin (EBIT / sales revenues). While the company uses sales, EBIT and EBIT margin as key performance indicators for short-term planning, the long-term management of the business units within the framework of the value-oriented growth strategy has a particular focus on value added. Value added is the key earnings indicator for the divisions and business units within the framework of external reporting.

In contrast to the previous year, the EBITDA margin is no longer considered the most significant financial performance indicator as it is based on almost the same factors as EBIT and the indicator is no longer used for Group management purposes.

Positive value added is generated when a premium is earned on top of the return claimed by investors and lenders (cost of capital). This premium is the difference between the return on capital employed (ROCE, calculated as EBIT/average capital employed) and the cost of capital, which is calculated as the weighted average cost of equity and debt. Multiplying the premium by average capital employed gives the value added over a period in absolute terms. For internal controlling purposes, ROCE and value added are calculated before taxes.

Cost of equity is largely composed of a risk-free interest rate plus a market risk premium. The interest rate factor is adjusted according to the result before taxes. Cost of debt is calculated on the basis of the Group's average financing terms. The ratio of equity to interest-bearing debt, which is used to determine the weighted cost of capital, is not derived from balance sheet data since it is not only predicated on a benchmark for the funding structure but also because equity is based on target market values in this case and not the carrying amounts recognized on the balance sheet. A weighted average cost of capital before taxes (WACC) of 7.0 percent was used as the yield expected by investors and lenders for the purposes of intragroup controlling in the 2022 fiscal year, as it was in the previous year.

There are two ways of increasing value added: increasing EBIT and optimizing capital employed. ROCE is derived from both values. Vossloh seeks to improve the parameters it can influence to optimize this performance indicator. As a result, the company also focuses on working capital, working capital intensity (average working capital/annual revenue) and free cash flow.

Management uses nonfinancial performance indicators for the purpose of managing the company and making long-term strategic decisions. However, nonfinancial performance indicators do not play a central role in the management of the company. Instead, they provide information about the situation within the Group and are used as a basis for decisions. Accordingly, the Vossloh Group does not use nonfinancial performance indicators in the sense of Section 289c (3) sentence 5 HGB. Nonfinancial performance indicators that are not primarily relevant for management purposes are provided in the nonfinancial Group statement, which begins on page 78.

The management of Vossloh AG considers monthly financial reporting to be a central element for the ongoing analysis and control of the divisions, business units and the Group itself. To this end, the financial statements and key performance indicators prepared by the Group companies are consolidated and analyzed in the same way as the annual forecast updated each month. Deviations are investigated in relation to their effects on the financial targets. The monthly updates to annual projections are supplemented by risk reports that aim to identify any potential reductions or increases in assets. The effectiveness of measures aimed at ensuring targets are met is continuously analyzed. The figures of the operating units are intensively discussed by their respective management and the Group Executive Board with the involvement of the relevant central departments of Vossloh AG.

Economic report

Macroeconomic and industry-specific conditions

Investments in rail infrastructure are generally made around the world on the basis of long-term decision-making processes. For this reason, short-term economic developments are only reflected in the sales markets for rail technology to a limited extent. More significant is the development of debt levels in Vossloh's sales markets, as the overwhelming majority of the Group's clients are public-sector customers. The debt ratio (the ratio of public debt to GDP) of the euro countries at the end of the third quarter of 2022 was 93.0 percent according to the statistical office of the European Union (Eurostat). This was the most recent figure available when this annual report was prepared. The debt ratio was 97.3 percent at the end of the third quarter of the previous year. At the end of September 2022, the debt ratio of the entire EU was 85.1 percent, compared to 89.7 percent in the previous year. The decline in debt ratios was driven by GDP rising at a faster rate than government debt.

From a global perspective, the rail technology market has shown a steady upward trend for many years. This is the result of rising demand around the world for environmentally friendly, safer and more economical mobility for both people and goods. The driving forces for this development include megatrends such as population growth, urbanization and, most significantly, increasing environmental awareness. No other mode of transport has less of an impact on the environment. Both passengers and freight need to be shifted onto the rail network if the aim is to increase their mobility while also reducing their environmental footprint in the interest of combating climate change. Investment programs are being set up worldwide to promote rail as a mode of transport. Germany, for example, had launched its "Strong Rail" strategy in 2020 and agreed with Deutsche Bahn AG to jointly invest a record sum of 86 billion euros in the maintenance and modernization of the existing rail network by 2030. As part of its "Egypt Vision 2030" infrastructure investment plan, Egypt plans to invest almost 50 billion euros in the expansion of its rail network by 2030, including a 1,800-kilometer section for high-speed connections. To provide another example, Australia plans to invest the equivalent of 77 billion euros in infrastructure development projects – including rail – by 2030. The railway industry is also undergoing a profound transformation beyond this. Digitalization and automation, artificial intelligence and the standardization and liberalization of rail transport are changing the framework conditions significantly. Innovations are becoming increasingly important.

A number of studies regularly analyze developments in the global rail technology market. The most important of these is the "World Rail Market Study", published by the European rail industry association UNIFE. This study is updated every two years. The findings from the most recent study were published in September 2022 at InnoTrans, the world's largest trade fair for transport technology held in Berlin.

According to UNIFE, the current global volume of the rail market is around €177 billion per year. UNIFE currently considers about 61 percent of the total volume of the rail market – some €107 billion – to be "accessible". In this case, accessible means that this market is, in principle, open to European suppliers and market demand is not exclusively met by domestic manufacturers.

Vossloh focuses on rail infrastructure products and services. The market segments of infrastructure and infrastructure services are therefore of particular importance for Vossloh. According to UNIFE data, €22.8 billion of the infrastructure market is accessible each year. UNIFE estimates that around €6.1 billion of the market for infrastructure services is currently accessible.

Results of operations

Vossloh divisions – Orders received and order backlog

	Orders received		Order backlog	
€ mill.	2022	2021	2022	2021
Core Components	554.4	398.4	285.4	211.8
Customized Modules	563.3	452.5	488.1	391.4
Lifecycle Solutions	162.3	122.2	37.5	14.9
Consolidation	(33.0)	(25.5)	(11.4)	(6.7)
Group	**1,247.0**	**947.6**	**799.6**	**611.4**

Orders received at all-time high

In the 2022 fiscal year, Vossloh achieved new record highs in terms of orders received and order backlog. Orders received reached an all-time high and were 31.6 percent higher than in the previous year. This significant increase was driven by all divisions. In the Core Components division, the Fastening Systems business unit achieved particularly notable growth, partly due to large orders in China and Egypt. At Vossloh Tie Technologies, the second business unit in the Core Components division, orders received also markedly exceeded the previous year's level. The business unit recorded a large increase in orders received, particularly in the USA and Australia. The improvement in the Customized Modules division was largely driven by orders received in Europe, above all in Italy, Poland, Portugal, and France. The increase in orders received in the Lifecycle Solutions division was mainly due to a positive development in Germany and the Netherlands. The book-to-bill ratio at Group level, i.e. the ratio of orders received to sales revenues, amounted to 1.19 (previous year: 1.01).

The Vossloh Group's order backlog was also very high at the end of 2022, exceeding the previous year's figure by 30.8 percent. Due to the high number of framework agreements, the order backlog performance indicator is only of limited significance, as the order volume from acquired framework agreements is usually only recorded in orders received at the time of the request.

Sales revenues significantly higher than expected, € 1 billion mark exceeded

The Vossloh Group achieved a significant increase in sales revenues in the 2022 fiscal year, exceeding the billion euro mark in its core business rail infrastructure for the first time. Sales revenues rose from €942.8 million in the previous year to €1,046.1 million – an increase of 11.0 percent. They were therefore well above the original forecast range of €925 million to €1 billion and at the upper end of the forecast range of €1 billion to €1.05 billion, raised at the end of 2022. All divisions contributed to the increase in sales revenues, with the Core Components division, and above all the Fastening Systems business unit, making the largest contribution. In the Customized Modules and Lifecycle Solutions division, the increase in sales revenue was also due to Futrifer-Indústrias Ferroviárias and Vossloh ETS, being included in the scope of consolidation for a full year for the first time. The total increase in sales revenue resulting from this was €23.3 million.

Vossloh Group – Sales by region

	€ million	%	€ million	%
	2022		2021	
Germany	101.7	9.7	94.6	10.0
France	89.7	8.6	73.1	7.8
Rest of Western Europe	87.7	8.4	71.2	7.6
Northern Europe	130.1	12.4	114.9	12.2
Southern Europe	101.9	9.8	81.3	8.6
Eastern Europe	78.9	7.5	67.4	7.1
Total for Europe	**590.0**	**56.4**	**502.5**	**53.3**
Americas	122.6	11.7	89.8	9.5
Asia	204.6	19.6	218.9	23.2
Africa	22.3	2.1	28.3	3.0
Australia	106.6	10.2	103.3	11.0
Total	**1,046.1**	**100.0**	**942.8**	**100.0**

Significant increase in sales revenues in Europe, especially in the Netherlands, France and Portugal

Compared to the previous year, sales revenues in Europe increased by 17.4 percent in the year under review. The increase in Western Europe was mainly due to a rise in sales revenues in the Lifecycle Solutions division in the Netherlands and in the Customized Modules division in France. In Northern Europe, sales revenues exceeded the previous year's level by 13.3 percent. The Lifecycle Solutions division in Denmark and the Customized Modules division in Norway achieved higher sales revenues. In Southern Europe, Vossloh boosted sales revenues by 25.4 percent compared to the previous year. This was mainly due to the Customized Modules division in Portugal contributing an increased level of sales revenues due to consolidation and higher sales revenues in Turkey. Sales revenues were 17.1 percent higher in Eastern Europe than in the previous year. This was mainly driven by the Fastening Systems business unit, which improved its sales revenues in Romania and Czechia.

Sales revenues in the Americas up significantly

In the Americas, sales revenues increased by 36.5 percent year on year in 2022. This was mainly due to higher sales revenues from the Core Components and Customized Modules divisions in Mexico. Sales revenues in Canada also exceeded the previous year's figure thanks to the performance of the Tie Technologies business unit. In contrast, the Group's sales revenues in the USA were slightly below the previous year's value.

Sales in Asia down but still at a high level

In Asia, the Group's sales revenues fell 6.6 percent short of the previous year's high figure. This was largely due to lower sales contributions from the Fastening Systems business unit in the United Arab Emirates.

Sales in Australia up slightly

In Australia, Group sales exceeded the already high level achieved in the previous year by 3.2 percent. The slight increase is largely due to higher sales revenues in the Fastening Systems business unit.

Sales in Africa below the previous year's level

In Africa, the Vossloh Group's sales revenues decreased by 21.2 percent. The decline was mainly due to lower sales revenues in the Customized Modules division in Egypt.

The Vossloh Group's cost of sales totaled €809.3 million in the year under review and, in line with the trend in sales revenues, was significantly higher than in the previous year (€724.8 million). Due in part to a significant increase in material prices, the cost of sales as a percentage of sales revenues was 77.4 percent in the year under review (previous year: 76.9 percent). The Vossloh Group's selling and administrative expenses rose from €160.8 million to €163.7 million. The share of these expenses in sales revenues fell from 17.0 percent in the previous year to 15.6 percent. The other operating result – the balance of other operating income of €20.9 million (previous year: €18.7 million) and other operating expense of €11.3 million (previous year: €7.8 million) – was slightly below the previous year's value of €10.9 million at €9.6 million.

Vossloh Group – Sales revenues and earnings

	€ million	%	€ million	%
	2022		2021	
Sales revenues	1,046.1	100.0	942.8	100.0
EBITDA/EBITDA margin	131.2	12.5	124.2	13.2
EBIT/EBIT margin	78.1	7.5	72.3	7.7
Net income	56.0	5.4	35.9	3.8
Earnings per share (in €)	2.38		1.31	

EBIT significantly higher despite negative impact of higher procurement costs

Vossloh achieved a significant year-on-year increase in earnings before interest and taxes (EBIT) in the 2022 fiscal year. EBIT improved by 8.0 percent. EBITDA (EBIT before depreciation/amortization) was also higher than in the previous year and increased by 5.7 percent. The Customized Modules and Lifecycle Solutions divisions contributed to the increase. Despite the significant negative impact of higher procurement prices, the EBIT margin was at the lower end of the original forecast range of 7.5 percent to 8.5 percent and at the upper end of the revised range of 7.0 percent to 7.5 percent issued at the end of 2022. The EBITDA margin did not reach the original forecast range of 13 percent to 14 percent, but was also at the upper end of the last communicated range of 12.0 percent to 12.5 percent.

Net interest income in the 2022 fiscal year fell to €(10.6) million compared with the previous year's figure of €(7.5) million. This was mainly due to currency translation losses from the measurement of existing foreign currency positions related to Group financing on the reporting date. Earnings before taxes increased to €67.5 million in the year under review (previous year: €64.8 million).

Income taxes in the Vossloh Group amounted to €12.5 million in the year under review. Following a restructuring under company law in the German tax group and an improved outlook for the French companies, the Group was once again able to recognize deferred tax assets. In the previous year, deferred tax assets were impaired in Germany in connection with the hybrid note, which was effective for tax purposes. The result from discontinued operations once again had no significant impact on net income and improved slightly from €(0.3) million in the previous year to €1.0 million. Net income increased significantly by 56.2 percent compared to 2021.

Earnings per share significantly higher than in the previous year

A total of €6.0 million (previous year: €5.1 million) of the net income was attributable to hybrid capital investors, while €8.3 million was attributable to other shareholders (previous year: €7.7 million). Net income attributable to Vossloh AG shareholders of €41.7 million was significantly above the previous year's figure of €23.1 million. Earnings per share improved significantly year on year to €2.38 (previous year: €1.31) based on an unchanged average number of shares outstanding of 17,564,180.

Dividend of €1.00 per share planned for 2022

The Executive Board and Supervisory Board of Vossloh AG are committed to ensuring that its shareholders benefit from the economic performance of the Group. The Executive Board and Supervisory Board will, therefore, propose a dividend of €1.00 (previous year: €1.00) for the 2022 fiscal year at the Annual General Meeting scheduled for May 24, 2023.

Vossloh Group – Value management

€ mill.	2022	2021
Average capital employed	950.6	896.9
ROCE (in %)	8.2	8.1
Value added	11.5	9.5

Value added slightly higher than in previous year

ROCE was on a par with the previous year. Value added slightly exceeded the previous year's figure as a result of an increase in EBIT. Average capital employed increased noticeably due to a rise in average fixed assets and working capital for the year. The weighted average cost of capital before taxes (WACC) remained unchanged at 7.0 percent in the 2022 fiscal year.

The following table presents a reconciliation of the ROCE and value added performance indicators to the EBIT shown in the income statement.

Reconciliation of value added and ROCE to EBIT

€ mill.	2022	2021
Premium in % (ROCE – WACC)	1.2	1.1
Average capital employed	950.6	896.9
Value added	**11.5**	**9.5**
Cost of capital on the average capital employed	66.6	62.8
EBIT	**78.1**	**72.3**

Financial position and investing activities

As the Group’s management holding company, Vossloh AG is responsible for managing the Group’s finances and funding. Corporate Treasury Management is responsible for the central management of cash flows and for ensuring the financing of all Group companies as well as for hedging and managing financial risks. These not only include liquidity risks, but particularly risks from interest and exchange rate fluctuations. Derivatives and other financial instruments are used for hedging. The Group companies’ funding level is largely ensured by Vossloh AG providing the necessary cash resources. Only in isolated cases where funding outside Germany is either economically preferable or required by law do individual Group companies obtain original local financing.

Net financial debt increased partly due to higher working capital

The net financial debt of the Vossloh Group (calculated as financial liabilities minus cash and cash equivalents and short-term securities) excluding lease liabilities rose from €174.0 million at the end of 2021 to €197.6 million at the end of the 2022 fiscal year. The increase was mainly driven by dividend, lease and interest payments. By contrast, free cash flow was positive in the 2022 fiscal year despite a noticeable increase in working capital – driven by higher procurement prices and increased stockpiling – and helped reduce net financial debt. Net financial debt, including lease liabilities in the amount of €39.9 million (previous year: €41.6 million), came to €237.5 million (previous year: €215.6 million) at the end of 2022.

Financial liabilities amounted to €316.6 million at the end of the year under review, a considerable increase compared to the previous year’s figure of €291.6 million. At the end of 2021, €115 million of the financial liabilities were attributed to Schuldschein loans placed in the 2017 fiscal year with terms of seven years (until July 2024). The interest rate is fixed at 1.763 percent for an amount of €90 million, and variable for the remainder of €25 million with a margin of 120 basis points above the Euribor. In addition, a Schuldschein loan in the amount of €25 million with a term of seven years (until December 2028) and a fixed interest rate of 0.8 percent per year was placed at the end of 2021. In January 2022, Vossloh used these funds to prematurely redeem the floating-rate Schuldschein loan in the same amount maturing in July 2024. Current financial liabilities fell year on year from €69.2 million to €49.2 million as a result. At the end of 2022, an additional €88 million in financial liabilities related to drawdowns from the syndicated loan agreed in November 2017, with a total volume of €230 million and with a term that runs until November 2024. The interest rate at the end of the year was 2.75 percent based on the relevant reference interest rate (Euribor or €STR) and a margin agreed in the loan agreement, which is based on the indicator net financial debt to EBITDA. At the end of the year, the margin applied was 1.0 percent. A limit is set for this indicator (covenant). If exceeded, the lending banks are permitted to terminate the agreement ahead of time. Compliance with the covenant is verified every six months; such compliance was affirmed as of the half-year and as of the end of 2022. Furthermore, as in the previous year, Vossloh AG took out a loan of €20 million with DZ Bank with a term until July 2024 and a margin of 0.75 percent above the 3-month Euribor at the end of 2022. When added together, the sum total of cash and cash equivalents and short-term securities came to €79.1 million at the end of the fiscal year under review (previous year: €76.0 million).

The Group’s contingent liabilities decreased from €58.0 million at the end of 2021 to €51.7 million. The majority of this, €46.2 million, was attributable to the former Locomotives business unit. For the outstanding contingent liabilities, Vossloh AG received an irrevocable and unconditional guarantee at first request from a first-class bank.

As of the end of the year, the Group had committed but unutilized credit facilities of €219.6 million (previous year: €279.0 million) at its disposal.

The hybrid note issued in February 2021 of €150 million with an indefinite term can be called and repaid by the company for the first time after five years. The interest rate over the first five years is 4.0 percent. In addition, depending on the sustainability performance measured by ISS ESG and MSCI ESG Research ratings, the redemption amount may increase. The structure of the note means that it is treated as equity in the consolidated financial statements. The resulting increase in the equity ratio and the associated strengthening of the balance sheet structure lead to significantly greater financial flexibility, which positively bolsters the implementation of the corporate strategy.

Vossloh Group – Development of cash flows

€ mill.	2022	2021
Cash flow from operating activities	71.6	81.3
Cash flow from investing activities	(44.9)	(57.9)
Cash flow from financing activities	(29.3)	(30.8)
Net cash inflow/outflow	(2.6)	(7.4)
Free cash flow	27.9	30.6

Free cash flow only slightly below previous year's level despite noticeable increase in working capital

Cash flow from operating activities was lower in the year under review than in the previous year. While gross cash flow (calculated as the sum of EBIT from continuing and discontinued operations, depreciation/amortization/impairment losses [less write-ups] of noncurrent assets and changes in noncurrent provisions) increased relative to the previous year due to the rise in EBIT, a considerable increase in working capital had a negative impact. While cash outflows from capital expenditure in intangible assets and property, plant and equipment declined, free cash flow – defined as cash flow from operating activities less capital expenditures in intangible assets and property, plant and equipment as well as capital expenditures in companies accounted for using the equity method plus cash inflows from profit distributions or the sale of companies accounted for using the equity method – was slightly below the previous year. Compared with the previous year, there were fewer cash outflows in cash flow from investing activities. This was mainly due to the cash outflows incurred in 2021 for the acquisition of the Dutch company ETS Spoor BV. Cash flow from financing activities was virtually unchanged compared to the previous year.

Vossloh Group – Capital expenditure and depreciation/amortization

€ mill.	2022		2021	
	Capital expenditure	Depreciation/ amortization	Capital expenditure	Depreciation/ amortization
Core Components	18.9	24.6	23.6	24.3
Customized Modules	16.3	15.1	14.2	13.7
Lifecycle Solutions	16.7	12.7	11.4	12.3
Vossloh AG/consolidation	6.3	0.7	2.1	1.6
Total	**58.2**	**53.1**	**51.3**	**51.9**

Capital expenditure in the Core Components division was noticeably below the previous year's level. This was caused by lower investments in the Fastening Systems business unit, after the "Factory of the Future" was completed. The largest single item of capital expenditure in the reporting year related to the establishment of series production for Vossloh's innovative composite ties at the Polish production site. Capital expenditure in the Tie Technologies business unit, on the other hand, exceeded the previous year's figure. The business unit invested in the expansion of its production capacities, particularly at its Australian sites. The biggest individual capital expenditure in the Customized Modules division went towards the optimization of production processes at the Swedish production site. In the Lifecycle Solutions division, a high performance milling machine remained the primary focus of investment. The capital expenditure shown in the table above reflects additions in the fiscal year and also includes capital expenditure in assets financed by a lease agreement. Capital expenditure is included in the cash flow statement if it has already resulted in cash outflows. The values therefore differ. Depreciation and amortization at Group level, which is added back to EBIT in the cash flow statement, includes impairments/reversals of impairment losses and were at the same level as in the previous year.

Capital expenditure commitments for the acquisition of intangible assets and property, plant and equipment totaled €23.2 million as of December 31, 2022 (previous year: €12.7 million). The upturn was mainly due to orders for the Fastening Systems business unit's Polish production site in relation to the establishment of series production for composite ties.

Asset and capital structure

Vossloh Group – Asset and capital structure

		12/31/2022	12/31/2021
Total assets	€ mill.	1,368.8	1,289.4
Equity	€ mill.	625.1	587.9
Equity ratio	%	45.7	45.6
Closing working capital[1]	€ mill.	191.6	175.6
Fixed assets[2]	€ mill.	731.6	726.0
Closing capital employed[3]	€ mill.	923.2	901.6

[1] Working Capital = trade receivables (including contract assets) plus inventories minus trade payables (including contract liabilities) minus prepayments received minus other current provisions (adjusted for matters not attributable to the operating business).

[2] Fixed assets = intangible assets plus property, plant and equipment plus investment properties plus investments in companies accounted for using the equity method plus other noncurrent financial instruments.

[3] Capital employed = working capital plus fixed assets

Equity ratio remains above 45 percent

The Vossloh Group's equity at the end of 2022 was well above the previous year's figure. This development was mainly driven by the positive net income in 2022. The equity ratio remained largely unchanged in comparison to the previous year as a result of the increase in total assets.

Working capital intensity almost unchanged

The working capital as of December 31, 2022, increased significantly compared to the previous year. The main drivers were inventories that were higher than in the previous year. This was primarily due to higher stocks to avoid supply bottlenecks, as well as higher procurement prices. As a result, average working capital came to €218.1 million, higher than the previous year's figure of €194.7 million. The average working capital intensity – the ratio of average working capital to sales revenues – was 20.8 percent (previous year: 20.6 percent).

General statement on the business performance and economic situation of the Vossloh Group

The 2022 fiscal year was marked by a number of crises, including the war in Ukraine, an enormous rise in procurement prices and the ongoing repercussions of the COVID-19 pandemic. Despite these challenges, Vossloh once again demonstrated a high degree of resilience and continued to grow in 2022. Sales revenues in the rail infrastructure business rose by 11.0 percent year on year to €1,046.1 million, exceeding the billion euro mark for the first time. As a result, sales revenues significantly exceeded the originally forecast range of €925 million to €1 billion. EBIT increased noticeably from €72.3 million to €78.1 million. This improvement is even more remarkable considering the significant rise in procurement costs, which could not be passed on in full to customers. Despite the resulting impact of these cost increases on profitability, the EBIT margin of 7.5 percent was at the lower end of the originally forecast range of 7.5 percent to 8.5 percent. Value added amounted to €11.5 million and was therefore also within the range of €5 million to €20 million forecast by the company.

Orders received also developed very positively. In comparison to the previous year, they grew significantly by 31.6 percent and reached a record level at €1.25 billion. The order backlog rose by 30.8 percent compared with the previous year. The Group's book-to-bill ratio reached the high level of 1.19 against the backdrop of significantly increased sales revenues.

The net assets and financial position of the Group are also in a positive overall situation in light of the underlying conditions. Equity came to €625.1 million, an increase of 6.3 percent compared with the previous year. At 45.7 percent, the equity ratio remained virtually on a par with the high level achieved in the previous year. However, net financial debt increased from €215.6 million at the end of 2021 to €237.5 million at the end of 2022 due to higher working capital. At €27.9 million, free cash flow was only slightly lower than the previous year's figure of €30.6 million. Against the background of higher procurement prices and increased stockpiling to avoid supply bottlenecks, this performance is very satisfactory.

The 2022 fiscal year was also successful from a strategic perspective. Vossloh has reached an important milestone in its pioneering showcase project for data-based switch condition monitoring in Sweden. The validated solution aims to reduce the amount of unplanned downtime for switches, drive up the efficiency of maintenance work and significantly improve track availability. During the year under review, series production for innovative and sustainable composite ties at the Fastening Systems business unit's Polish production site was approved and launched. The innovative composite tie is a more environmentally friendly alternative to wooden ties that is fully recyclable and has significantly lower lifecycle costs.

From an operational and strategic perspective, 2022 was an extremely successful fiscal year overall for the Vossloh Group.

Business performance of Core Components

In the Core Components division, Vossloh has combined its range of industrially manufactured series products, which are required in large quantities for rail infrastructure projects. This includes the rail fastening systems developed, produced and marketed in the Fastening Systems business unit for all areas of application worldwide – from heavy-haul to high-speed rail lines and urban transport. The Tie Technologies business unit is the leading manufacturer of concrete ties in North America and Australia. In addition to concrete rail ties, the business unit also manufactures switch ties, concrete low-vibration blocks for slab track and crossing panels.

Core Components

		2022	2021
Orders received	€ mill.	554.4	398.4
Order backlog	€ mill.	285.4	211.8
Sales revenues[1]	€ mill.	482.1	429.1
EBITDA	€ mill.	68.4	71.0
EBITDA margin	%	14.2	16.5
EBIT	€ mill.	43.7	46.7
EBIT margin	%	9.1	10.9
Average working capital	€ mill.	125.1	117.5
Average working capital intensity	%	26.0	27.4
Average capital employed	€ mill.	367.6	346.5
ROCE	%	11.9	13.5
Value added	€ mill.	18.0	22.4

[1] Sales revenues include external sales revenues and sales to other divisions.

Significant rise in orders received year on year

In the Core Components division, orders received in the year under review were up by €156.0 million and thus significantly higher than in the previous year. This corresponds to an increase of almost 40 percent. Both business units recorded a significant increase in orders received. The Fastening Systems business unit won three major contracts in 2022 to supply fastening systems for the construction of new high-speed rail lines in China and Egypt in addition to a number of other orders. Orders received in the USA and Australia in the Tie Technologies business unit went up. The order backlog at the end of 2022 was €73.6 million higher than in the previous year, equivalent to a 34.8 percent increase compared to the previous year.

Significant 12.4 percent increase in sales revenues

Sales revenues in the Core Components division went up by 12.4 percent in the year under review. Even though the Fastening Systems business unit was the main contributor to this positive development, the Tie Technologies business unit also posted significantly higher revenue figures compared to the previous year.

2022 EBIT and EBIT margin impacted by higher procurement prices

The EBIT achieved by the Core Components division was €3.0 million lower than the previous year's figure. This decline was largely due to an increase in procurement prices. The increase in procurement prices could not be fully passed on to customers, which had a negative impact on profitability in particular. In addition, an impairment loss was recognized in the year under review on an investment accounted for using the equity method in the Fastening Systems business unit.

As a result of the downturn in EBIT and the increase in average capital employed, return on capital employed (ROCE) decreased in the 2022 fiscal year. Both average working capital and average fixed assets as components of capital employed increased compared with 2021. The change in average working capital was primarily attributed to significantly higher inventories in the year under review. The average working capital intensity was 1.4 percentage points lower than in the previous year due to improved receivables management. Value added was slightly lower in the 2022 fiscal year compared to the previous year.

Vossloh Fastening Systems

In the 2022 fiscal year, orders received by Vossloh Fastening Systems totaled €391.8 million (previous year: €269.5 million). Demand went up in a number of regions. The large orders won for the supply of rail fastening systems for the construction of two new high-speed lines in China and a high-speed line in northern Egypt contributed to this improvement. The order backlog increased by €49.1 million year on year, reaching €199.1 million at the end of 2022.

Orders received significantly higher than in previous year

Sales revenues for Vossloh Fastening Systems amounted to €341.3 million in 2022 (previous year: €292.4 million). This rise was mainly driven by deliveries for projects in Mexico and Turkey in addition to improved sales revenues in Eastern Europe, China and Australia in particular. Higher sales revenues in these regions more than compensated for lower sales in the United Arab Emirates.

Significant increase in sales revenues

The value added for Vossloh Fastening Systems fell in line with EBIT to €18.5 million (previous year: €23.3 million), but remained at a high level.

High positive value added once again

Vossloh Tie Technologies

The Tie Technologies business unit recorded orders received of €178.0 million in the year under review, which represents an increase of €45.7 million compared to the previous year's figure of €132.3 million. The rise was mainly caused by a higher number of new orders in the US market and Australia. Orders received were down slightly compared to the previous year in Mexico and Canada. The order backlog amounted to €89.5 million at the end of 2022 (previous year: €65.1 million).

Orders received above previous year in the USA and Australia

The sales revenues in the Tie Technologies business unit totaled €156.3 million, a significant increase compared to the previous year's figure of €142.3 million. The increase in sales revenues in Canada and Mexico more than compensated for the downturn in sales revenues in Australia. Sales revenues in the USA were almost on a par with the previous year.

Sales revenues up on the previous year

The value added of Vossloh Tie Technologies, at €(0.2) million, was slightly higher than the previous year's figure of €(0.8) million.

Business performance of Customized Modules

All of the Group's services for the manufacture, installation and maintenance of individualized infrastructure modules for the rail industry are bundled in the Customized Modules division. The division includes the Switch Systems business unit, one of the largest providers of switch systems worldwide. The product portfolio covers a very wide range of applications, extending from light-rail to high-speed applications.

Customized Modules

		2022	2021
Orders received	€ mill.	563.3	452.5
Order backlog	€ mill.	488.1	391.4
Sales revenues[1]	€ mill.	456.1	418.7
EBITDA	€ mill.	52.3	47.6
EBITDA margin	%	11.5	11.4
EBIT	€ mill.	37.1	34.0
EBIT margin	%	8.1	8.1
Average working capital	€ mill.	73.1	69.5
Average working capital intensity	%	16.0	16.6
Average capital employed	€ mill.	376.2	366.6
ROCE	%	9.9	9.3
Value added	€ mill.	10.8	8.3

[1] Sales revenues include external sales revenues and sales to other divisions

Order backlog significantly above previous year's level

Orders received in the Customized Modules division were 24.5 percent higher than the previous year's figure. New orders were higher than in the previous year, particularly in Italy and Poland, as well as in Portugal due to consolidation, while orders received were down in Turkey, Mexico and Australia.

Significant rise in sales revenues

The division's sales revenues increased by €37.4 million compared to 2021. This upwards trend was particularly notable in France, Portugal and Turkey and was able to more than offset the downturns in certain areas, particularly Egypt. In Portugal, the upturn was due to a company which was fully consolidated for the first time in the final quarter of 2021 and contributed sales for the entire year in 2022. The total increase in sales revenue resulting from this was €12.6 million.

EBIT above the previous year's result

The division's EBIT was 9.4 percent higher in 2022 than in the previous year despite the impact of higher procurement prices.

Due to the overall improvement, ROCE was significantly higher than in the previous year despite the increase in average capital employed. Value added also improved significantly as a result.

Slight improvement in working capital intensity

Average working capital increased slightly, due mainly to a rise in inventories. However, average working capital went up by a lower percentage than sales revenues. As a result, average working capital intensity was just 0.6 percentage points lower than in 2021.

Business performance of Lifecycle Solutions

Through its Rail Services business unit, the Lifecycle Solutions division concentrates on specialist services for the maintenance of rails and switches. Its innovative technologies promote the safety of rail lines and contribute to extension of the service life of rails and switches as well as improved track availability. The service portfolio mainly includes maintenance, grinding and milling for the corrective and preventive care of rails and switches, welding services and rail and switch logistics. Lifecycle Solutions' extensive range of services complements the product portfolios of Core Components and Customized Modules.

Lifecycle Solutions

		2022	2021
Orders received	€ mill.	162.3	122.2
Order backlog	€ mill.	37.5	14.9
Sales revenues[1]	€ mill.	136.0	115.5
EBITDA	€ mill.	24.2	21.6
EBITDA margin	%	17.8	18.7
EBIT	€ mill.	11.5	9.3
EBIT margin	%	8.4	8.0
Average working capital	€ mill.	24.2	13.0
Average working capital intensity	%	17.8	11.2
Average capital employed	€ mill.	205.0	184.3
ROCE	%	5.6	5.0
Value added	€ mill.	(2.9)	(3.6)

[1] Sales revenues include external sales revenues and sales to other divisions.

Orders received significantly higher than in previous year

In the 2022 fiscal year, the Lifecycle Solutions division recorded orders received that were much higher than in the previous year. This increase was mainly achieved in high-speed grinding and due to additional orders in the Netherlands. The order backlog was significantly higher at the end of 2022 than in the previous year.

17.7 percent increase in sales revenues

The Lifecycle Solutions division recorded a 17.7 percent increase in sales revenues compared to the previous year. The increase was due in particular to higher sales revenues in the Netherlands, Denmark and Germany, which more than offset declines in other countries, particularly Sweden and China. In the Netherlands, the improvement in sales revenues was mainly driven by ETS Spoor which was acquired in the previous year and has been included in the scope of consolidation since August 2021. The total increase in sales revenues resulting from this was €10.7 million compared to the previous year. The Lifecycle Solutions division's degree of internationalization, measured on the basis of sales revenues earned outside of Germany, rose to 54.4 percent in the 2022 fiscal year (previous year: 48.4 percent).

EBIT up by 23.7 percent

The division's EBIT increased by a significant €2.2 million compared with the previous year. This was partly driven by higher earnings contributions from the Dutch company and higher earnings contributions from machinery sales.

Value added increased by €0.7 million. Working capital intensity went up compared to the previous year, largely due to increased stockpiling to avoid supply bottlenecks.

Vossloh AG – Analysis of the separate financial statements

As an operational management and financial holding company, Vossloh AG serves as the parent of the Vossloh Group and controls and oversees all major operations and activities within the Group. In addition to determining corporate strategy and controlling corporate development, Vossloh AG allocates the financial resources, particularly for capital expenditures and acquisitions, and is responsible for corporate accounting and controlling, Group-wide treasury management, risk and opportunity management and internal auditing as well as for innovation and development, EHS/sustainability, IT, legal affairs and compliance, investor relations and corporate communications among others. The company oversees sales activities, including marketing communications. In addition to HR policy, it is also responsible for personnel development and supporting the Group's senior management. Business unit representatives report on the events and developments in their area of responsibility on a regular basis. The Executive Board exerts a direct influence on the operational management of the business units in this context, alongside its management responsibility for different functions. A comprehensive catalog of approval requirements also ensures that the Executive Board is closely involved in significant operational decisions.

Vossloh AG prepares its annual financial statements in accordance with the regulations of the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). The explanations below refer to the annual financial statements. In isolated cases, certain transactions are handled differently in the consolidated financial statements according to IFRS. The relevant provisions of the German Commercial Code (HGB) have not changed significantly in the fiscal year.

Analysis of the separate financial statements

For the 2022 fiscal year, Vossloh AG reported sales revenues of €11.7 million (previous year: €7.6 million), resulting primarily from intercompany allocations with Group companies that obtain a wide range of services via Vossloh AG (mainly in the areas of IT and marketing, in addition to services related to digitalization and international sales).

Operating expenses were mainly incurred in connection with the company's management and financing functions. The business performance and economic development of Vossloh AG follow the activities of its subsidiaries and investees. The most significant performance indicators for Vossloh AG are the general administrative expenses, the net financial result and the result after tax/net income.

Administrative expenses totaled €19.0 million for 2022, a slight increase compared to the previous year (€18.5 million). Personnel expenses of €13.7 million increased slightly compared with the previous year (€12.0 million) as a result of higher wages and adjustments to pension provisions due to anticipated changes to annuities. Trade fair costs also rose compared to the previous year due to the InnoTrans industry trade fair taking place in the year under review after a temporary hiatus. By contrast, consulting fees were slightly lower than in the previous year.

Other operating expenses came to €1.7 million in the year under review, roughly on a par with the previous year (€1.6 million), and exclusively comprises losses from foreign currency measurements. Other operating income totaled €2.6 million. This significant rise compared to the previous year's figure of €0.5 million was caused by the reversal of a provision.

The net financial result fell significantly year on year, from €27.0 million to €(46.3) million in 2022. Significant income from investments (€20.0 million) and profit transfer agreements (€17.1 million) was unable to compensate for the assumption of €6.1 million in losses and, in particular, write-downs on investments totaling €74.7 million. This impairment was primarily driven by the higher risk-free interest rate, which caused the fair value of the investment to fall accordingly. Interest income of €8.0 million (previous year: €6.7 million) – primarily from passing on these funds in the form of short-term and long-term loans to Group companies – was offset by interest expenses of €11.9 million (previous year: €12.8 million).

The negative net interest result was largely due to the interest expense of €6.0 million (previous year: €5.1 million) on the hybrid note. Loss carryforwards kept income taxes extremely low and unchanged from the previous year at €0.0 million. Vossloh AG's net loss in the reporting year was €64.3 million (net income in previous year: €7.7 million).

Total assets came to €855.0 million, a decrease from the previous year's figure of €918.6 million. Financial assets decreased by €54.7 million as the balance of the write-downs and the increase in loans to subsidiaries, while receivables from affiliated companies fell by €14.9 million. Intangible fixed assets increased significantly from €4.0 million in the previous year to €9.7 million as a result of the work performed in connection with the conversion of the ERP software within the Group.

At €238.0 million, liabilities to banks on the balance sheet increased slightly as of the reporting date compared with the previous year's figure of €210.7 million. Liabilities to affiliated companies fell by €12.6 million to €17.8 million (previous year: €30.4 million). Provisions amounted to €31.6 million. The increase compared to the previous year's level of €28.8 million was driven by the aforementioned additional allocation to pension provisions. Equity went down from €490.3 million to €408.4 million. This significant downturn was due to the dividend payment and the net loss for the year. As a result, the equity ratio fell from 53.4 percent in the previous year to 47.8 percent. Overall, the Executive Board views the financial position of Vossloh AG as of the end of the fiscal year as positive due to the prevailing very high equity ratio. The result of operations, on the other hand, is considered less than satisfactory due to unscheduled impairment losses being recognized for financial assets during the period under review.

Dependency report

The Executive Board of Vossloh AG considers Vossloh AG to be dependent in accordance with Section 17 of the German Stock Corporation Act as Ms. Nadia Thiele respectively Mr. Robin Brühmüller, as executor of the estate of the deceased Heinz Hermann Thiele, continue to indirectly hold 50.09 percent of its share capital on December 31, 2022. In accordance with Section 312 AktG, the company prepared a report on its relationships with affiliated companies containing the following declaration: "In respect of the legal transactions listed in the report on relationships with affiliated companies, the company, according to the circumstances known at the time when the legal transactions were made, received an appropriate consideration for each legal transaction. No measures were enacted that put the company at a disadvantage at the request or in the interest of Ms. Thiele or Mr. Brühmüller, or companies affiliated with the aforementioned persons. This assessment is based on the facts and circumstances known by us at the time such reportable transactions were conducted." The report was audited by the auditor and was issued with an unqualified auditor's opinion.

Statutory takeover-related disclosures pursuant to Section 289a and Section 315a HGB

The provisions of Sections 289a and 315a HGB require that the following takeover-related disclosures be made as of December 31, 2022.

Composition of the subscribed capital
The subscribed capital (share capital) of the company amounts to €49,857,682.23. It is distributed across 17,564,180 no-par-value ordinary shares.

Restrictions on voting rights and share transferability
All shares carry the same rights. Each share grants one vote at the Annual General Meeting. The Executive Board of the company is not aware of any restrictions on voting rights or share transferability.

Shareholdings in excess of 10 percent of the voting rights
On the basis of the notifications of voting rights submitted to the company in accordance with the provisions of the German Securities Trading Act (WpHG), the company holds an interest in the company's capital that exceeds 10 percent of the voting rights. KB Holding GmbH, Grünwald, Germany, holds 50.09 percent of the voting rights in Vossloh AG. Based on the notifications of voting rights pursuant to Section 34 (1) of the German Securities Trading Act, these voting rights are attributable to TIB Vermögens- und Beteiligungsholding GmbH, Grünwald, Germany, Stella Vermögensverwaltung GmbH, Grünwald, Germany, Ms. Nadia Thiele, Munich, Germany and Mr. Robin Brühmüller (executor of the estate of the late Heinz Hermann Thiele), Munich, Germany.

Shares with special rights or rights of control
There are no shares with special rights or rights of control.

Voting control of employee shareholdings
Employees who are shareholders in the company exercise their control rights like any other shareholder, directly in accordance with statutory requirements and the Articles of Incorporation.

Appointment/dismissal of Executive Board members; amendments to the Articles of Incorporation
Vossloh AG's Executive Board members are appointed or dismissed in accordance with the provisions of Sections 84, 85 AktG in conjunction with Article 7 of the Articles of Incorporation. Pursuant to Section 84 (1) AktG, Executive Board members are appointed by the Supervisory Board. They are appointed for a maximum term of five years, whereby their reappointment or the renewal of their term of office is permitted. The appointment of an Executive Board member may be revoked in the cases set out in Section 84 (4) AktG.

According to Section 179 (1) AktG, the Articles of Incorporation may be amended by a resolution of the Annual General Meeting. Pursuant to Article 21 (2) of the Articles of Incorporation but subject to overriding statutory provisions to the contrary, the Annual General Meeting may pass its resolutions with the simple majority of votes cast. Where the law prescribes a capital majority in addition to a voting majority, the simple majority of the capital stock represented at the vote shall suffice unless the provisions of the law or Vossloh AG's Articles of Incorporation prescribe otherwise. Article 27 of the Articles of Incorporation authorizes the Supervisory Board to resolve on amendments to the Articles of Incorporation that only affect the wording. Article 4 (4) of the Articles of Incorporation further entitles the Supervisory Board to update the Articles of Incorporation accordingly after the capital stock has been increased by utilizing authorized or contingent capital.

Authority of the Executive Board to issue and buy back shares
The Executive Board's authority to issue shares is defined in Article 4 of the Articles of Incorporation.

Authorized capital
The Executive Board is authorized, subject to the consent of the Supervisory Board, to increase the share capital until May 26, 2025, by up to a total of €24,928,841.11 through one or more issuances of new, no-par-value shares against contributions in cash and/or in kind (Authorized Capital 2020).

The shareholders are entitled to subscription rights. The shares may also be taken over by one or more credit institutions with the obligation to offer them to the shareholders for subscription.

The Executive Board is authorized, however, subject to consent of the Supervisory Board, to exclude the subscription rights of shareholders in the following instances:

(i) To exclude fractional amounts resulting from the subscription ratio from the subscription right;

(ii) To grant the holders – or, in the case of registered securities, the creditors – of conversion and/or option rights in circulation at the time when the Authorized Capital 2020 is utilized, or of a conversion obligation from convertible bonds and/or bonds with warrants to be issued by the company or one of its wholly-owned Group companies in the future, a subscription right for new shares to the extent to which they would be entitled after exercising their conversion and/or option rights or after fulfillment of a conversion obligation as shareholders;

(iii) In the case of capital increases against cash contributions, if the issue price of the new shares is not significantly lower than the stock exchange price of the already listed shares of the same class at the time the issue price is finally fixed and the total number of shares issued does not exceed 10 percent of the share capital neither at the time this authorization becomes effective nor at the time it is exercised. Counting toward this capital limit are: (1.) The sale of treasury shares, insofar as they are sold during the term of this authorization under exclusion of subscription rights pursuant to Section 186 (3) sentence 4 AktG; (2.) Those shares issued or to be issued to service bonds with conversion and/or option rights or a conversion obligation, if the bonds are issued during the term of this authorization under exclusion of subscription rights in analogous application of Section 186 (3) sentence 4 AktG; and (3.) Those shares that were issued during the term of this authorization on the basis of other capital measures under exclusion of shareholder subscription rights pursuant to or in analogous application of Section 186 (3) sentence 4 AktG.

(iv) In the case of capital increases against contributions in kind.

The authorizations contained in the above paragraphs (i) to (iv) to exclude subscription rights in the case of capital increases against cash and/or contributions in kind are limited to an amount not exceeding 10 percent of the share capital, either at the time this authorization becomes effective or at the time this authorization is exercised. The above-mentioned 10 percent limit must also take into account: (1.) Own shares that are sold during the term of this authorization under exclusion of subscription rights; (2.) Those shares that are issued to service bonds if the bonds were issued during the term of this authorization under exclusion of shareholder subscription rights; and (3.) Those shares that were issued during the term of this authorization on the basis of other capital measures under exclusion of shareholder subscription rights.

The Executive Board is authorized, subject to the consent of the Supervisory Board, to determine the further details of capital increases as well as the conditions for the share issue.

Further details of the authorization can be found in Article 4 of the Articles of Incorporation.

Purchase of treasury shares
There is currently no authorization for the company to purchase treasury shares. As of December 31, 2022, the company did not hold any treasury shares.

Agreements upon a change of control
There are eight material company agreements that are subject to a change of control clause.

In the case of seven of these agreements, a change of control means that a person or a group of persons acting in concert – with the exception of descendants, spouses, heirs, foundations or other beneficiaries in the last will of Mr. Heinz Hermann Thiele – directly or indirectly obtains more than 50 percent of the shares or voting rights in the company.

- A Schuldschein loan arranged by Landesbank Hessen-Thüringen Girozentrale and BNP Paribas: In the event of a change of control, the loan agreement contains the right of the loan issuers to demand payment of the outstanding balance, including accrued interest, within 30 days after becoming aware of the change of control.

- A syndicated loan agreement with Bayerische Landesbank, BNP Paribas' German branch, Commerzbank AG, Deutsche Bank AG's German branch, HSBC Trinkaus & Burkhardt GmbH, Landesbank Baden-Württemberg, Landesbank Hessen-Thüringen Girozentrale and Skandinaviska Enskilda Banken AB's (publ) Frankfurt branch, including the sub-credit line agreements concluded on this basis: If there is a change of control, each individual bank has the right to cancel the loan contract for the amount of the loan attributable to it within 30 days after the announcement has been made. In the event of a cancellation, the outstanding balance, including accrued interest, are due and payable within a period of at least 15 days;

- A guarantee facility agreement with Skandinaviska Enskilda Banken AB's (publ) Frankfurt branch: If there is a change of control, the bank is entitled to an extraordinary cancellation right. In the event of a cancellation, the outstanding balance, including accrued interest, is immediately due and payable;

- A guarantee insurance policy with Tryg Deutschland, a branch of Tryg Forsikring A/S: If there is a change of control, the insurer has the right to cancel the policy without notice within 30 days after becoming aware of the change. If the policy is canceled, the insurer is entitled to demand collateral for outstanding guarantees in the form of a cash deposit;

- A hybrid note arranged by M.M. Warburg & Co. and Jefferies GmbH: In the event of a change of control, the bond grants the issuer the right to cancel the bond and demand payment of the outstanding balance, including accrued interest, by a date to be decided later. If the issuer does not exercise this right, the interest rate used to calculate the accrued interest is increased by 500 basis points;

- A loan agreement with DZ Bank AG: In the event of a change of control, the Parties must reach a mutually agreeable arrangement regarding how the loan should be continued, with different terms if necessary. If an agreement cannot be reached within one month, the bank is entitled to terminate the loan and any accrued interest without notice;

- A Schuldschein loan arranged by Landesbank Hessen-Thüringen Girozentrale: In the event of a change of control, the loan agreement contains the right of the loan issuers to demand payment of the outstanding balance, including accrued interest, within 30 days after becoming aware of the change of control.

In one other agreement, a change of control essentially means the purchase of more than 30 percent of the voting rights by one or several trading individuals. In relation to the descendants, spouses, heirs, foundations or other beneficiaries in the last will of Mr. Heinz Hermann Thiele, a change of control occurs if 50 percent of capital stock is exceeded:

- A guarantee facility agreement with Deutsche Bank AG: In the event of a change of control, negotiations to continue the framework loan are foreseen under amended terms and conditions, if applicable. After a change of control, the bank is not obliged to fund further utilizations.

Compensation agreements upon change of control
No arrangements have been made with Executive Board members or Vossloh employees regarding post-takeover indemnification or other compensation upon a change of control.

Workforce

As of December 31, 2022, there were 3,882 employees[1] within the Vossloh Group contributing to achieving the Group's goals. This represents an increase of 195 employees or 5.3 percent compared to the previous year (3,687 employees).

Workforce-related performance indicators

€ thousand	2022	2021
Personnel expenses per employee	59.8	58.6
Sales revenues per employee	275.7	261.0

The average number of employees was 3,794 in the reporting year compared to 3,612 in the 2021 fiscal year. This 5.0 percent increase is attributable to all divisions. The increase was in part due to the full consolidation of a Portuguese company in the Customized Modules division for the first time at the start of the final quarter of 2021 and the inclusion of its employees in the calculation of the average workforce for the full year in 2022.

Out of the overall average number of employees, 73.6 percent (previous year: 72.9 percent) were employed at locations in Europe. Of the remaining 26.4 percent, 51.7 percent (previous year: 54.1 percent) were employed in Asia, 26.4 percent (previous year: 25.2 percent) in the Americas and 21.9 percent (previous year: 20.7 percent) in Australia.

Personnel expenses

€ mill.	2022	2021
Wages and salaries	182.3	169.5
Social security expenses and charges	38.5	36.8
Pension expenses	6.0	5.5
Total	**226.8**	**211.8**

Divisions

The average number of employees is distributed as follows across the divisions. The following revenue was generated on the basis of the associated personnel expenses:

Division	Number Ø employees		Personnel expenses per employee in € thousand		Sales revenues per employee in € thousand	
	2022	2021	2022	2021	2022	2021
Core Components	937	879	65.8	64.7	514.6	488.3
Customized Modules	2,241	2,150	50.4	49.5	203.5	194.7
Lifecycle Solutions	549	520	71.1	69.8	247.7	222.0

In addition, an average of 67 employees (previous year: 63) were employed by Vossloh AG.

For additional information, please refer to the "Occupational health and safety" and „Human resources and leadership" sections of the nonfinancial Group statement.

[1] This section presents the number of employees based on Full Time Equivalents.

Research and development

Vossloh is a technological leader in the rail infrastructure segments in which it operates. Innovation plays a decisive role in ensuring that the company remains competitive from a technological standpoint. In the interest of safety, Vossloh's products and services are subject to detailed technical specifications and standards that must be met. Before products and services for rail infrastructure are ready for market, they usually undergo (further) development and testing for several years, as well as complex approval procedures by independent testing institutions. Research and development projects at Vossloh are therefore usually scheduled to run for several years.

To satisfy the specific expectations of customers in individual market regions over the long term and reinforce its own competitive position, Vossloh adopts a structured approach to managing innovation by continuously investing in the development and optimization of its products and services. Principles and procedures are defined in the Group-wide Innovation Playbook adopted in 2021, the implementation of which is ensured by a Group Innovation Committee. Vossloh intends to increase collaboration across business units to develop new products, services and business models and ensure that customers and suppliers – with their specific expertise – are involved more closely in research and development processes. After reviewing its production processes over recent years, the company is now implementing a range of measures which will provide ongoing efficiency gains, including modernization, increased automation and specialization.

One focus of innovation at Vossloh is digitalization as the link between hardware and services. The company uses specialized sensor systems to collect data about load levels and track condition. This data provides an indication of how worn these components are and other insights, making it easier to identify which maintenance strategies will be most effective, and when they should be used. This can reduce the risk of component failure – and thus the unavailability of routes and infrastructure – during ongoing operations. Artificial intelligence also plays an important role in detecting wear patterns to predict the failure of track components and prevent these failures by planning maintenance measures ahead of time. Vossloh uses its in-depth knowledge of rail structure to meet its customers' main requirement "track availability" and develop comprehensive solutions in partnership with all business units.

In 2022, Vossloh's guiding principle „enabling green mobility" was also adopted as its motto for its attendance at InnoTrans, the world's largest trade fair for railway technology and infrastructure held in Berlin. In line with the trade fair motto, the focus was on three key topics: Advanced infrastructure, Future turnout environment and Smart maintenance. In Berlin, Vossloh presented solutions designed to ensure that rail infrastructure is more robust and resilient with improved route availability, even though the demands placed on the rail network are constantly increasing. Sustainability criteria (such as reducing the use of materials and energy) also played an important role in the solutions that were presented.

A significant proportion of Vossloh's research and development efforts relate to specific customer contracts. Accordingly, these expenses are reported under cost of sales in the income statement and not under research and development (R&D). Expenses for the development of market-ready products are only capitalized if they satisfy the relevant criteria defined in IAS 38. Development costs that cannot be capitalized are shown as research and development costs if they are not reported under cost of sales.

In 2022, expenses for research and development – including capitalized internally generated assets – came to a total of €11.8 million (previous year: €12.2 million). This represents a share of approximately 1.1 percent of Group sales (previous year: 1.3 percent). R&D expenses in the Core Components division came to €4.1 million (previous year: €4.2 million) and were almost entirely attributable to the Fastening Systems business unit. R&D expenses in the Customized Modules division came to €3.7 million (previous year: €4.8 million). €3.6 million (previous year: €2.5 million) were attributable to the Lifecycle Solutions division, while €0.4 million (previous year: €0.7 million) were attributable to Vossloh AG.

Newly capitalized assets that were generated internally or as a result of third-party deliveries or service performance in the 2022 fiscal year came to €3.5 million (previous year: €3.2 million) and were largely attributable to the Lifecycle Solutions division.

Vossloh Group – Research and development costs

€ mill.	2022	2021
Research and development costs	11.8	12.2
of which capitalized	3.5	3.2
Research and development expenses (income statement)	**8.3**	**9.0**
Amortization (of capitalized development costs)	0.4	0.8

Maximizing track availability and reducing lifecycle costs

Vossloh's research and development efforts in 2022 focused on creating new products and services that provide solutions to the major challenges currently facing the rail sector. This includes increasing the availability of rail tracks and developing solutions to deal with the consequences resulting from the increased load on tracks, such as wear and noise emissions. Vossloh also conducts research with a focus on extending the service life of infrastructure and infrastructure components in order to reduce lifecycle costs. Vossloh possesses comprehensive expertise on rail as a complex mode of transportation. The company is able to leverage this expertise to significantly improve the efficiency of rail network maintenance processes. Digitalization plays a key role in this. The focus is on intelligent rail systems and digital track monitoring. Vossloh's solutions minimize disruption and lay the groundwork for increasing the amount of traffic on rail networks.Vossloh is therefore helping create more efficient rail infrastructure, which is essential for the environmentally friendly mobility of people and goods, i.e., enabling green mobility.

Predictive maintenance based on track condition data

The digitalization of rail infrastructure opens up new opportunities for Vossloh to create value with its products and services. Apps released by Vossloh bring measurement and track condition data together, provide a quick overview of which routes require action, and suggest suitable measures for repairing damage. Vossloh uses configurable IoT sensors to measure vibrations and provide data from parts of the track in the vicinity of switches. This data is validated and compressed, and then sent to a cloud-based platform developed by Vossloh using a mobile phone network for analysis. The platform processes the data collected by the sensors to identify any atypical track behavior and propose maintenance measures.

Vossloh's rail profiling machines are also used to diagnose track issues with an array of sensor systems, including laser and eddy current sensors. They record data about the condition of the track without disrupting rail schedules, and then send this data to an asset management system, such as mapl-e or MR.pro, both of which were developed in-house by Vossloh. In addition to visualizing the condition of the track, mapl-e can also identify appropriate maintenance measures and assess the economic viability of the work required. This enables asset managers to plan and budget for maintenance. Vossloh's customers are able to access measurement data, analyses, assessments and recommendations for their routes from a secure area on our digital analysis platform. This digital service allows Vossloh customers to better understand their infrastructure and increase availability with targeted and preventive maintenance.

Switches are the most critical elements of the rail track, and also the components which require the most maintenance. Switch disruptions are one of the main reasons for track unavailability and unplanned maintenance. Switches are also the ideal starting point for the continuous collection of condition data with sensors. In addition to tracks, a number of signaling and control systems cross each other at switches; as a result, the data collected at switches is particularly useful. A number of digital solutions are now available for switch management purposes. In urban regional transportation, for example, Vossloh's compact electro-hydraulic Easydrive point machine can be equipped with smart sensor technology for remote monitoring. The PM-DiagBox can be added to conventional analog point machines to make them smart. Vossloh offers the innovative Easyswitch MIM-H point machine for mainline routes – a modular plug-and-play solution with excellent reliability. Smart Monitoring Vossloh (SMV) was developed in-house and is already being used to monitor the point machines of a high-speed line in France. This makes it possible to not only predict point machine failures but also detect any need for tamping work in the vicinity of switches.

Vossloh also uses drones to generate digital three-dimensional models of busy routes, for example. These 3D models can be used to optimize track layouts, switch designs and the replacement of sections of track to increase speeds and capacity on routes whilst also reducing the need for maintenance. The V-Drone concept also makes track renovation projects more efficient, safer and more transparent, as it makes measurements and digitization possible without the need to have people on the track, meaning that tracks can continue to be used without any restrictions during the measurements.

Digitalization also offers opportunities for Vossloh's R&D activities. The research and development activities of every division are increasingly focused on data-processing technology – a trend which continued in 2022. Vossloh already uses a combination of multibody and finite element simulation. Vossloh's innovative DYNADeV platform simulates wheel-to-rail contact to predict the mechanical behavior of a switch. This simulation tool removes the need for expensive track measurements and lengthy laboratory testing. In addition to significantly accelerating the development and certification process for switches, the digital process also provides an indication of which trains damage existing rail infrastructure due to deformed wheels and other factors. Another example of a recent success in terms of Vossloh's use of digital tools in a different product line is the new M-generation tension clamp, which was developed by a team of specialists from various fields in just 12 months and provides a wide range of benefits for our customers.

Working towards "quiet rails"

All of Vossloh's innovations also focus on "quiet rails" as noise and vibrations are a major inconvenience, particularly for people in dense urban areas. With dampening rail fasteners, whisper switches and acoustic rail grinding, Vossloh is playing its part in reducing noise emissions. A number of solutions in this area were improved in 2022. The company also provides maintenance measures that are proven to reduce noise emissions. By using sensor technology to monitor noise levels, Vossloh can target specific areas for grinding to guarantee long-term reductions in the amount of noise created by rail infrastructure. This is another example of how the company is using digitalization to improve the quality of life for people in urban areas.

Cooperation and partnerships

Vossloh has long relied on the specific expertise of external specialists for some of its development work. The Group has access to an extensive network of experts. The company works closely with renowned universities and research institutions from all around the world – such as those in Germany, France, Sweden, China, Australia and the USA – as part of long-term partnerships on a variety of levels and in various forms. Vossloh focuses on partnerships with technology companies and startups working in digitalization and big data analysis. The joint venture established with Rhomberg Sersa represents a crucial partnership that offers a wide range of monitoring and maintenance services for switches and rails. The MR.pro software provides the joint venture with a set of open-system digital tools for evaluating and visualizing the condition and material of track infrastructure.

R&D by division

The Core Components division focused on the development of the new tension clamp in the Fastening Systems business unit in 2022. The innovative geometry of the clamps and the convex spring arms make it possible to use more elastic systems to reduce vibrations even further. The M generation provides optimized performance, enhanced durability, reduced complexity and a significantly improved carbon footprint thanks to the use of a new micro-steel alloy and a more compact design. A number of models entered testing in Europe and North America in 2022. Vossloh's enhancement of its cellentic intermediate layers focused on completely avoiding the use of harmful nitrosamines during the manufacturing process. Cellentic components optimize the elasticity of the track, reduce vibrations, reduce structure-borne noise and protect the superstructure, particularly when installed in combination with the EPS (engineered polymer sleeper) composite sleeper developed by Vossloh. After many years of testing, a mass production process is currently being established for the EPS. The R&D activities of the Tie Technologies business unit in the reporting year focused on making changes to the composition of concrete used for railway sleepers to reduce the use of materials and energy. One key focus involved the use of an innovative cement mixture, which has a significantly improved carbon footprint due to changes in the composition while retaining the same properties.

The Customized Modules division completed the development of an ultrasonic testing process for cast manganese steel frogs in 2022. This opens up new possibilities for both the foundry and when it comes to inspecting these important switch elements in the track. The Flexidrive-4M point machine is a product created for metro systems and mainline railways. The design process focused on ensuring a very long service life of one million switching operations through the use of low-friction materials and a housing that protects the internal parts from even the harshest climatic conditions, along with other features. These machines are currently being tested in Finland for the first time. A product line was created for the extremely hard rolled steel CogX for frogs and switch points, which had previously been tested for several years in a wide variety of installations. This product line is now available worldwide. The material provides a higher level of resistance to wear and impact compared to traditional solutions, and extends service lives by up to 30 percent. The COGISLIDE coating developed by the division was also incorporated into a product line after several years of successful testing. When slide chairs in switches are coated with this material, points can be moved smoothly and easily without lubrication.

The Lifecycle Solutions division focused its R&D activities on milling machines, onboard rail condition measuring systems and software for evaluating and visualizing even more condition data – all with the aim of enhancing smart maintenance. In 2022, the control systems, sensors and measuring technology of various grinding and milling trains were adapted to reflect changing requirements. The division is systematically investigating alternatives to diesel and petrol-powered locomotives due to increasing customer demand. It tested battery-powered electric motors and using power supplied by an external source via (several coupled) traction vehicles. The SoniQ Rail Explorer – a manually guided ultrasonic inspection system for the detection and location of operational irregularities inside rails – is now market-ready. The new development was impressively light, easy to handle and extremely robust during track testing.

Optimizing production and administration

In addition to enhancing its range of products and services, Vossloh is also making consistent improvements to its production processes. The company wants its factories to be smart and highly efficient. A prime example is Vossloh's "factory of the future" at its Werdohl headquarters. This factory produces tension clamps using a digitally managed and highly automated process. The Group's two major switch plants have specialized in specific stages along the value chain (metal milling in Reichshoffen, final assembly and shipping in Fère-en-Tardenois), which has brought significant improvements in efficiency. In 2022, Vossloh increased the level of collaboration between internal units and sped up the exchange of knowledge between business units as part of international development projects. For this purpose, the company uses state-of-the-art communication and collaboration solutions; the IT structure was expanded and standardized in 2022 as a result.

Streamlined processes and digital data flows along the entire value chain are becoming an increasingly important part of Vossloh's internal processes. One of the company's largest projects is „one.ERP". The Group-wide standardized enterprise resource planning (ERP) system provides a tool for limitless cooperation between all employees. The solution chosen by the Group can be adapted to the business models of different Vossloh units and can interface with other platforms, such as Customer Relationship Management (CRM) and Product Lifecycle Management (PLM). The project proceeded according to plan during the reporting period.

Risk and opportunity report

Principles and organizational structure

Risks and opportunities for the company's net assets, financial position and results of operations are systematically identified, analyzed, evaluated, monitored, managed and reported to the relevant bodies at all levels within the Vossloh Group. For Vossloh, proper management of risks and opportunities is part of responsible corporate governance. Vossloh has established a Group-wide risk and opportunity management system for this purpose. This system serves to prevent or mitigate negative effects resulting from changes while also identifying and harnessing opportunities that arise. The risk and opportunity management system encompasses not only Vossloh AG itself but also all domestic and overseas subsidiaries in which Vossloh AG has a direct or indirect shareholding, irrespective of whether these are consolidated in the Group's financial statements. Acquired companies are promptly integrated into the system.

The risk and opportunity situation of Vossloh AG is addressed separately at the end of this section.

The risk and opportunity management system is a component of the business, planning and control process. The organization of structures and processes is documented in a Group-wide policy. This policy was most recently updated in the 2021 fiscal year to reflect the additional requirements in the amended version of the assurance standard IDW PS 340 and incorporated without changes in the 2022 fiscal year. The majority of the update relates to the assessment of mutual dependencies between reported individual risks and how they are aggregated into an overall risk position (net view) which is then compared to the risk-bearing capacity of the Group. The risk-bearing capacity of the Group is systematically determined using earnings and liquidity ratios and reviewed on an ongoing basis by Corporate Controlling and the Executive Board. All relevant risks with both a significant potential impact and a very low probability of occurrence (less than 5 percent – so-called tail events) are systematically included in the reporting process.

The structure of the risk and opportunity management system is based on the structure of the operating processes of each of the organizational units. There are appointed Risk Managers, Risk Officers and Risk Controllers at all levels of the Group. A permanent inventory identifies risks and opportunities on an ongoing basis and ensures that relevant risks and opportunities are recorded effectively, promptly and systematically.

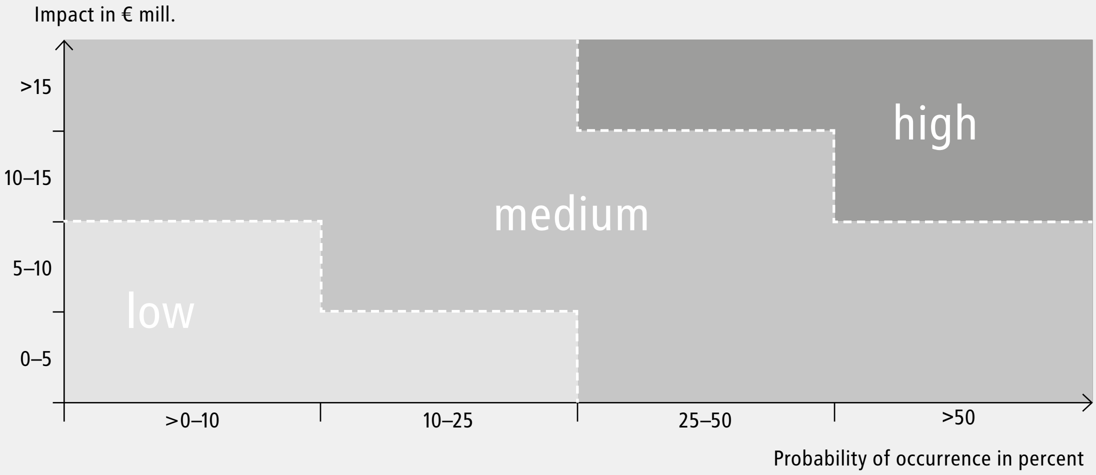
Vossloh evaluates risks and opportunities in regard to their potential impact on the company's earnings and financial position. The possible impact of a risk is primarily calculated using the EBIT as a financial performance indicator. In addition, its influence on the liquidity situation is recorded. Interest and income tax risks and risks from discontinued operations are assessed in light of their impact on net income. This evaluation determines not only the most likely outcome but also the worst-case and best-case scenarios. In line with the value-at-risk method, a minimum probability of 5 percent is required for these. Additionally, an evaluation of the probability of occurrence is carried out. Tail events are reported separately. Besides, nonfinancial risks and opportunities are incorporated into risk reporting. These are assessed to determine their impact on nonfinancial issues, such as environmental and labor concerns.

Vossloh documents and presents risks and opportunities in standardized reports. They contain detailed information on risks and opportunities, the parameters by which they are evaluated, and potential measures to manage these risks or harness these opportunities. The risks and opportunities report is issued on a quarterly basis. It supplements the current annual outlook and also addresses predictable and adequately specific risks and opportunities for the following three years. Ad hoc reports round out the regular reports and provide the means to assess the current situation at any time. The risk reports are addressing the Executive Board of Vossloh AG as well as the management of the Group companies and business units. These are responsible for managing and monitoring risks and opportunities. The business units, Corporate Controlling and the Executive Board discuss the current risk situation on a regular basis. The tight-knit personnel structure enables information to flow quickly and reactions to be invoked at short notice.

The Executive Board has adopted suitable measures in order to promptly identify developments that may jeopardize the Group's standing as a going concern. In addition to the reporting system, Vossloh also uses the internal control system (ICS) to uncover and prevent risks in existing processes in order to avoid possible deficits. Internal Audit checks whether the risk and opportunity management system is adequate and functional and whether it is in compliance with statutory requirements on an annual basis. The changes made in light of the additional requirements in the amended version of the assurance standard IDW PS 340 were reviewed by an external auditor in 2021. The early warning risk control system is audited on a regular basis.

The significance that individual risk categories hold for the Vossloh Group is evaluated on the basis of their potential negative and positive impact on the forecast financial earnings indicators and on the probability of occurrence for the given risk category. The risk situation is analyzed following the implementation of risk mitigation measures (net effect) based on a worst-case assessment. Risks are categorized as high, moderate or low based on their possible negative impact and probability of occurrence.

This is shown in the figure below.



The following statements illustrate the risks and opportunities within the identified risk categories that were relevant as of the reporting date and are material to the development of the Vossloh Group. Individual risks and opportunities are highlighted separately if they have a worst case or best case of more than €2 million (net view) taking into account a minimum probability of occurrence.

General economic risks and opportunities as well as industry-specific risks and opportunities

General economic risks and opportunities arise as a result of economic fluctuations, social and political events, changes in exchange rates and interest rates, and changes to legislation and taxation. Industry-specific risks and opportunities arise from the competitive situation and the characteristics of the target markets as well as global megatrends such as population growth, urbanization, globalization, sustainability and digitalization.

The start of the Russia-Ukraine war in February 2022 had a largely indirect impact on Vossloh, resulting in supply chain difficulties and a significant rise in prices for input materials and on the energy markets. Vossloh is countering these risks by approving alternative suppliers, continuously analyzing the energy market and implementing suitable risk reduction measures. The operations in Russia, the majority of which are primarily pooled in a joint venture and a trading company, only account for a small share of Group sales.

The impact of the COVID-19 pandemic on the Vossloh Group remained noticeable in the 2022 fiscal year. Nevertheless, production issues due to infections among employees or official requirements as well as customers and suppliers being affected by worker shortages only affected operations to a very limited extent. Although it cannot be ruled out that the pandemic may affect operations in 2023, any impact is likely to be minor.

Regulatory activities, the state of rail deregulation in different countries and government budgets also have an influence on Vossloh. The latter has a major impact on the ability of public clients to make investments. Reduced availability of public funding can have a negative impact on the future business performance of Vossloh. Increased availability can conversely have a positive impact. In the infrastructure maintenance markets, which are highly critical to the Group, there has been an increased trend toward cost-cutting in recent years due to the continuing strain on public clients' budgets. In order to combat the sharp increase in inflation in 2022, both the US and European central banks incrementally raised key interest rates significantly over the course of the year. This could place a further strain on the costs for refinancing public budgets and restrict the availability of funding. However, there currently seems to be far more political will to shift a considerable amount of passengers and cargo onto the rail network, the most environmentally friendly means of transport, in order to reach climate targets. Numerous regions around the world have set up rail subsidy schemes as part of climate action initiatives. Many countries have announced economic stimulus programs which include measures to boost investment in rail infrastructure.

Vossloh was active in rail infrastructure markets around the world in 2022. In this field, the Group is one of the leading providers in its core business. Vossloh generates more than 85 percent of its sales revenues in Europe, the Americas and Asia.

The political and economic factors that have an impact on European rail infrastructure markets are largely stable. North American markets are significantly more volatile in terms of demand, as most of the rail and network operators there do not benefit from state funding. Vossloh's performance in Asia is characterized by projects related to the continued rapid growth of the Chinese high-speed network. Activities in these and other markets – particularly in the rest of Asia, Australia and Africa – present opportunities for Vossloh as well as additional risks. In these markets, risks may arise in particular as a result of political and social instability, protectionist tendencies, oil price changes or exchange rate volatility – mainly translation risks – and as a result of legal uncertainty.

In isolated cases, there are also risks that products may be substituted by new technical developments and that new competitors may enter the market. The intensity of competition in the field of rail infrastructure has grown noticeably and sustainably in recent years. Vossloh counters these risks by continuously enhancing its products and services and consistently focusing its activities on the needs of its customers and comprehensive cost reduction measures. Digitalization and the new business models resulting from it are playing an increasingly important role in Vossloh's ambitions to focus on the customer.

Vossloh continues to classify the macroeconomic risk from the Russia-Ukraine war as low due to its low level of direct exposure. The risk arising from the COVID-19 pandemic is likewise still considered to be low overall. As in the previous year, the industry risk for the forecast financial targets is also assessed as low.

Operating risks and opportunities

Operating risks and opportunities can originate from various operational activities, particularly in procurement, production and order performance. In the procurement process, Vossloh seeks to limit price risks by means of long-term contractual agreements or sliding scale pricing clauses with suppliers and customers. However, sliding scale pricing clauses are frequently only possible to implement with a delay, and occasionally not possible at all. Vossloh primarily limits exchange rate risks in relation to procurement through the use of foreign currency forwards. The price changes assumed in medium-term planning for materials and components are largely based on information from suppliers and market analyses.

Vossloh monitors changes in material and energy prices on an ongoing basis. If the prices of the materials used and the energy sources required for the production process do not follow the expected trend due to the pandemic or other factors, risks or opportunities for forecasted results may arise from procurement prices being higher or lower, particularly in the Core Components division. As a result of the considerable rise in inflation, collective agreements may lead to results being higher or lower than forecast. These are significant individual risks or opportunities.

Risks can emerge in the course of the procurement process as a result of the loss of suppliers, a shortage of raw materials, quality problems affecting materials or delays in the supply process. Vossloh minimizes these risks by prioritizing arrangements with well-established partners and improving its vertical integration in selected areas. Even though suppliers are carefully selected, regularly contacted and alternative procurement sources are established, future risks relating to the procurement process can be limited, but never entirely eliminated.

Within the value chain, the operating units are generally exposed to the risk of operational shutdowns and quality problems affecting production as well as health, safety and environmental risks. These risks may be intensified if significant investments impact the production processes at a given location. Vossloh avoids or reduces the ensuing risks by means of extensive policies and directives on product and quality management, safe manufacturing practices, occupational health and safety and environmental protection. The Vossloh Group is certified in accordance with a wide range of international quality, environmental and social standards, such as ISO 9001, ISO 14001, ISO 50001, OHSAS 18001 and ISO 45001. If newly acquired units do not hold equivalent certifications, they are brought into compliance with these standards as quickly as possible.

Vossloh may be exposed to risks arising from the complexity of projects when handling orders, especially when a significant amount of factory capacity is used or if the products involved are particularly technically sophisticated. These scenarios can be caused by unexpected technical difficulties, unforeseeable developments at project sites, problems with partners or subcontractors and logistical challenges, as well as delays in approvals, acceptance and billing. This can lead to significant additional expenditure or contractual penalties in certain cases. These risks can be limited, but not fully eliminated, by formulating contracts appropriately and ensuring that capacity, project and quality management are thorough. On the other hand, there may be isolated indirect opportunities if the recognized risk provisions do not need to be fully utilized.

Risks may also materialize after acquisitions where it becomes necessary to impair goodwill if the medium and long-term operational performance of the units in question is significantly weaker than expected and/or if there is a material change in relevant parameters (e.g., the general interest level). The goodwill of acquired companies is not amortized in accordance with IFRS 3 in conjunction with IAS 36. Instead, this goodwill undergoes impairment testing each year as of the balance sheet date. Impairment testing is carried out during the year if exceptional events occur. This testing involves a comparison of the relevant carrying amount of a group of cash-generating units (CGUs), to which goodwill from business combinations is allocated, against the value in use.

Vossloh has recognized the relevant IFRS regulations for risk provisions for existing operational risks. Despite the provisions for known risks with a very high probability of occurrence, the risk of net profit reductions arising from the restructuring of individual sites cannot be fully eliminated and may have negative effects on the achievement of forecast financial targets. The absolute risk value arising from the completion of projects is dependent on the volume and value of development services connected to the relevant order and on the quality of the products.

Vossloh believes that the amount of risk arising from the value chain, changes in the price of materials and the completion of projects is still moderate. As in the previous year, the risk of possible impairment of goodwill is also classified as moderate. Overall, the other operating risks are still deemed to be low.

Financial risks and opportunities

The Corporate Treasury department monitors and limits financial risk within the Vossloh Group and optimizes Group financing on an ongoing basis. Targets, principles, duties and expertise are consistent with corresponding policies. The prime objective is to preserve the company’s status as a going concern by ensuring solvency and liquidity at all times. Synergies and economies of scale are also harnessed within the Group where it seems appropriate to do so.

Vossloh only uses derivative financial instruments to hedge specific risks from existing or expected future underlying transactions. These economic hedges are normally also reported as hedge relationships in the balance sheet. These only make use of previously approved, market-standard financial instruments. The trade, performance and controlling functions are organizationally separated. Group Treasury continuously ensures and monitors the effectiveness of risk hedging. It manages the following specific financial risks: liquidity risks, interest rate risks (cash flow risks), price risks and credit risks.

Liquidity risks
Liquidity risks can arise if Vossloh is unable to settle liabilities in a timely and complete fashion. For this reason, the Group conducts ongoing liquidity management that incorporates reserves for potential special needs and the scope required to implement the company’s strategy. Financial balancing measures within the Group – including cash pooling systems in individual countries and intercompany loans – facilitate the use of the excess liquidity of individual Group companies in order to cover the financing requirements of others.

Financing and the provision of liquidity typically take place centrally through Vossloh AG as the Group holding company. In February 2021, Vossloh AG issued a hybrid note of €150 million. The note has an indefinite term and can be called and repaid by Vossloh for the first time in February 2026. The funds from the hybrid note were used to repay the Schuldschein loans of €135 million due in July 2021. The proceeds from a Schuldschein loan of €25 million with a term until December 2028 which was issued at the end of December 2021 were used in January 2022 to pay off a €25 million Schuldschein loan with a variable interest rate which was due to expire in July 2024. Of the Schuldschein loans issued in July 2017, only €90 million in loans remain. These will come due in July 2024. These will come due in July 2024. A syndicated loan concluded with eight banks for €150 million with a term until November 2024 has been in effect since November 2017. In April 2019, the volume of the loan was increased by €80 million to €230 million. If necessary, it can be increased by up to a further €70 million during the term of the loan. The funds are available to the company in the form of a revolving line of credit that can be flexibly accessed. In July 2021, a €20 million loan with a variable interest rate was agreed with another bank and used. The term of the loan will run until July 2024. As of the end of the year, the Group had unutilized credit facilities of €219.6 million at its disposal – in addition to cash.

There are no financing or liquidity shortages. Vossloh still considers the liquidity risk as a whole to be low.

Interest rate risks
Changes to the future interest rate may cause cash flow volatility where asset and debt positions are subject to variable interest rates. Vossloh hedges this risk as appropriate with the use of interest rate swaps and caps. The company regularly performs analyses to determine how changes to interest rates affect cash flows. For the purposes of active risk management, the variable-rate interest cash flows from a long-term loan concluded in 2018 were replaced with an interest rate swap for fixed cash flows at the same time. In August 2022, two forward payer interest rate swaps were also concluded in order to refinance the Schuldschein loans maturing in mid-2024. This fixed the reference interest rate for 2/3 of the maturing volume for the new maturities over five and seven years. The positive or negative impact of a potential change in the ECB base rate on cash flows is deemed to be low. In contrast to the previous year, this risk is considered to be moderate.

Price risks
Price risks result from the value of a financial instrument changing due to increases or decreases in market interest rates or exchange rates. At Vossloh, existing and expected future liabilities and debts denominated in foreign currencies are usually hedged with foreign currency forwards as of the time the order is issued. Translation risks – arising from the translation of financial statements denominated in foreign currencies – are continuously monitored. Due to the high level of hedging of price risks, this risk is still deemed to be low overall.

Credit risks
Credit risks arise whenever a contract partner does not comply with its obligations in relation to a transaction (or only does so in a delayed fashion), thus causing Vossloh to incur financial losses. The Group minimizes credit risks by ensuring that contract partners mostly have good or excellent credit ratings. These ratings – where available – are mainly based on the statements of international rating agencies. As of the end of 2022, of the financial investments and derivative financial instruments with positive market values, 59 percent were with contract partners with a rating of AA+ to AA–, 17 percent were with contract partners with a rating of A+ to A–, 23 percent were with contract partners with a rating of BBB+ to BBB–, while 1 percent were with contract partners with a rating of BB or no available rating. The Group also distributes its financial assets across a number of credit institutions, thus broadly diversifying its risk exposure. There were and are no dependencies on individual banks.

Credit risk is considered low due to the fact that the majority of Vossloh's customers are in the public sector. However, outstanding amounts owed are continuously monitored by Group companies. Some are also insured by means of credit insurance policies. Despite the precautionary measures taken, it is impossible to entirely eliminate the risk of financial losses from nonpayment of receivables. In the export business, orders are usually concluded with letters of credit to limit the credit risk. All contract partners must have good or excellent credit ratings. As a result, credit risk is still deemed to be low.

Legal risks and opportunities

Legal risks arise for Vossloh in particular on the basis of complaints, warranty claims, compensation claims and litigation. Identifiable risks are covered where possible and economically feasible by insurance and – if the relevant requirements are met – reflected in the balance sheet through provisions. However, it is impossible to eliminate the possibility that losses may arise that are not (adequately) insured or exceed the provisions made. On the other hand, there may be indirect opportunities if risk provisions are not utilized entirely.

Group companies of Deutsche Bahn AG have asserted compensation claims against the Group company Vossloh Rail Services Deutschland GmbH (previously Vossloh Rail Center GmbH), Hamburg. Even though the damages directly attributable to the company were settled in 2016 by a partial settlement with Deutsche Bahn AG, there remains a risk of joint and several liability for as yet unsettled damages. The claims were rejected by the court of first instance in 2022. For any outstanding entitlements, Vossloh Rail Services Deutschland GmbH has a right of recourse that is partially secured with bank guarantees. Various customers have also asserted compensation claims in relation to ongoing or concluded competition law procedures concerning rail switches. Provisions for compensation claims are recognized where the assertion of individual customer claims is deemed to be very likely and a reliable estimate of potential compensation amounts seems possible. This is a significant individual risk or opportunity.

Resulting from the divestments in recent years, the purchasers were granted certain guarantee rights and rights of recourse in the purchase agreements. Risk provisions have been recognized for these claims, where utilization of the guarantees and rights of recourse is deemed to be very likely. Opportunities may arise indirectly if the recognized risk provisions do not need to be fully utilized. These are significant individual risks and opportunities.

For the existing legal risks, risk provisions have been recognized in accordance with IFRS. It is impossible to exclude the possibility of the forecast financial targets for Vossloh being reduced due to legal risks, and these risks are still deemed to be moderate.

Nonfinancial risks and opportunities[1]

According to the HGB, it is necessary to report on the nonfinancial risks that are associated with the company's own business activities, business relationships, products and services, where these risks have had or are very likely to have severe negative repercussions on the reportable aspects relating to the environment, employment, social welfare, human rights, anti-corruption and anti-bribery activities. The nonfinancial risks are reflected in the Vossloh Group's risk reporting.

There are presently no material risks that meet the criteria described. Vossloh therefore still deems the risk situation in connection with nonfinancial matters to be low.

[1] Part of the nonfinancial Group statement audit for providing limited assurance carried out by Deloitte GmbH Wirtschaftsprüfungsgesellschaft – see page 114 et seq.

Other risks and opportunities

Other risks consist primarily of personnel and information technology risks. Inadequate human resources, such as due to a lack of managers and specialist personnel, can negatively influence the economic situation of the Group. Personnel risks may also relate to high turnover figures of highly specialized personnel and inadequate training, as well as errors made or theft committed by employees. Vossloh applies a variety of measures to counteract these risks, including in particular the positioning of the company as an attractive employer to enable it to successfully compete for highly qualified specialist personnel. A range of training activities are used to improve the expertise of employees, while attractive pay structures increase the likelihood of retaining personnel within the company in the long term.

Complex and powerful information technology has a decisive effect on the management of operational and strategic business processes. Having high-performance information technology at your disposal is crucial as the digitalization trend continues. Vossloh monitors the ever-growing threats to cyber security worldwide and optimizes its IT infrastructure on an ongoing basis. Through the use of technical and organization precautions in particular, Vossloh minimizes risks related to the reliability, availability and confidentiality of the data stored in its information systems. Vossloh AG is monitored by internal and external security experts on a permanent basis. The company uses cutting edge systems to analyze and prevent potential attacks. In addition to making continuous improvements to the already high security standards within the Group, which comprise measures like hardening our infrastructure and using multifactor authentication, relevant training is provided for employees.

Other risks had no significant impact on net income in 2022. The risk is classified as low overall.

Risks and opportunities of Vossloh AG

Vossloh AG prepares its annual financial statements in accordance with the regulations of the German Commercial Code and the German Stock Corporation Act. The statements below refer to the opportunities and risks in the separate financial assessments of Vossloh AG related to net income, which is largely dictated by general administrative expenses, the net financial result and the tax result.

As an operational management holding company, the net financial result of Vossloh AG is largely subject to the same opportunities and risks as those which apply to the Group. Opportunities and risks can have an effect in the form of changes to dividend payments, higher or lower amounts from profit transfers or losses absorbed, in addition to affecting the value of financial assets.

Changes in interest rates expose the net income figure to fluctuation in pension-related expenses recognized as administrative expenses. Higher interest rates can likewise have a negative impact on the value of financial assets included in the net financial result. Deviations in the utilization of risk provisions for divestment projects recognized by Vossloh AG can have a positive or a negative impact on net income.

Assessment of the risk and opportunities situation

All of the described risks and opportunities that the Vossloh Group and Vossloh AG are exposed to are continuously monitored and managed in terms of their effects on the net assets, financial position and results of operations of the Group. The relevant IFRS risk provisions have been recognized for risks that are currently known and considered probable overall. Other current risks and opportunities are – if adequately specified – accounted for in the current annual outlooks. As in the previous year, Vossloh does not anticipate any significant deviations from its targets for the 2023 fiscal year on this basis at the time this annual report was prepared. Based on current information, there is no risk to the Vossloh Group as a going concern in terms of substance or liquidity based on individual risks or all of the currently known risks collectively. The available Group equity is adequate to cover potential risks. The risk and opportunity situation within the Vossloh Group is therefore considered satisfactory overall.

Internal control system

The internal control system is the entire system of defined controls and monitoring activities designed to ensure the security and efficiency of business processes, the reliability of financial reporting and the compliance of all activities with laws and guidelines. In terms of the accounting process, the internal control system encompasses all principles, processes and activities of the Vossloh Group that aim to ensure the effectiveness, cost-efficiency and legitimacy of the accounting system, and to ensure compliance with relevant legal requirements.

An effective and efficient internal control system has a crucial role to play in the successful management of risks in business processes. The risk of fraudulent actions can be reduced by segregating duties appropriately and applying the double-check principle.

Vossloh‘s internal control system is designed to cover all material business processes and extends beyond simply implementing controls in the accounting process. A number of monitoring measures and controls are implemented as part of the accounting process to ensure, for example, that the consolidated financial statements are prepared in accordance with regulations. Group-wide guidelines and policies are in place for monthly reporting, capital expenditure, offer submissions, compliance and risk management, for instance. The companies and business units of the Vossloh Group are also required to establish policies for local key divisions.

Vossloh regularly performs system backups for relevant IT systems to minimize data loss and system failures. The security concept includes customized authorizations, access restrictions and similar measures. Vossloh continuously adapts the requirements for the internal control system and makes adjustments to the control landscape to reflect changes to processes.

To ensure that risks are systematically identified early throughout the Group, an early-warning monitoring system for risks that may jeopardize the Vossloh Group as a going concern has been established in accordance with Section 91 (2) of the German Stock Corporation Act (AktG). In addition, a suitable and efficient internal control system and a risk management system have been established in accordance with Section 91 (3) AktG. These systems serve to quickly identify, manage and monitor risks that jeopardize the Group as a going concern as well as other risks. The Group auditor assesses the functional capacity of the early-warning risk control system in accordance with Section 317 (4) HGB.

At a business unit level, the respective management companies are responsible for implementing the internal control system on the basis of a large number of coordinated regulations and guidelines. At Group level, this is mainly the responsibility of the Controlling, Accounting, Treasury and Legal departments, as well as Internal Audit. An internal monitoring system encompasses monitoring activities that are both integrated into and independent from processes. Alongside manual process controls (such as peer reviews), IT processes are also a key element of the process-integrated activities. The Legal department also ensures that monitoring is integrated into processes.

The Supervisory Board, in particular the Audit Committee, Vossloh AG's Internal Audit and Legal departments and the locally appointed employees at the level of the management companies of the business units, are responsible for process-independent audits. The (Group) auditor also performs process-independent auditing activities.

Information technology
Accounting transactions are recorded locally in the respective accounting systems of the Group companies. When preparing the consolidated financial statements of Vossloh AG, the subsidiaries add additional information to the individual financial statements, which are prepared on the basis of standardized Group accounting methods, to form standardized reporting packages. These packages are then incorporated into the Group reporting and consolidation system used by all of the companies included in the consolidated financial statements. This system, Cognos Controller from IBM (current version in use: 10.4.0), is used to both consolidate and provide additional management information.

With a small number of exceptions, Group companies use a standardized accounting system from SAP. This IT system enables central access and centrally initiated controls in regard to the accounting process. The system is currently used within Vossloh AG and the overwhelming majority of companies in all divisions.

Key activities to ensure that (Group) accounting is performed in a legally compliant and reliable manner
The Vossloh Group's "Group Accounting Manual" governs the standardized accounting, measurement and valuation principles applicable to the companies included in Vossloh's consolidated financial statements, in addition to detailed formal requirements for the consolidated financial statements. The formal requirements include the binding application of a standardized and complete set of forms.

The "Group Accounting Manual" is regularly revised and updated; the most recent update was carried out in summer 2022. New and revised editions are made available directly to anyone involved in the Group accounting process via the Group intranet.

Accounting transactions within the Group companies are recorded locally but the monthly and annual financial statements are reviewed by the managing company of the relevant business unit. Checks are carried out at random but are also triggered, most notably, by major or unusual transactions.

At the level of Vossloh AG, further plausibility checks are performed by the Accounting, Legal and Controlling departments using appropriate validation rules to ensure compliance with the applicable requirements of the IFRS and German Commercial Code.

Further data is also prepared and aggregated at Group level for use in the notes and management report (including major events after the reporting period).

Based on the organizational, control and monitoring structures established within the Vossloh Group, the internal control and risk management system helps ensure that all of the company's transactions are recorded, processed and validated, and that they are presented correctly in the Group's accounting system.

Poor discretionary judgments, the circumvention of controls, criminal activities and other circumstances cannot be fully eliminated by their very nature, meaning that even Group-wide application of the utilized systems does not constitute an absolute guarantee that the consolidated financial statements are free of errors.

Qualifying statements
The statements made relate solely to Vossloh AG and to the companies that are included in the consolidated financial statements of Vossloh AG whose financial and business policies can be directly or indirectly influenced by Vossloh AG.

Adequacy and effectiveness of the risk management system and the internal control system[1]
The internal control system and RMS are audited on a regular basis by Internal Audit. These audits are carried out either as part of the risk-based annual audit plan or as part of audits performed during the year. Critical vulnerabilities in the control system are reported to Vossloh AG's Executive Board and the Audit Committee of the Supervisory Board. Risks are also reported on a regular basis to the Audit Committee. The Executive Board is not aware of any circumstances based on its involvement with the internal control system and risk management system or from reports that would suggest that the internal control system or risk management system were not adequate or effective as of December 31, 2022, in their respective entirety.

Reference to the Declaration on Corporate Governance pursuant to Section 289f and Section 315d HGB
The Declaration on Corporate Governance is printed in the annual report, which is permanently available on the Vossloh AG website (see www.vossloh.com/en/ > Investor Relations > News and publications > Financial Publications).

[1] Statements in this section have not been audited

Outlook

This outlook contains forward-looking statements that are based on the expectations of Vossloh management in relation to the future development of the Group. These expectations are based on estimates made by management using all available information. Assumptions regarding the future development of the international rail technology market and the specific business expectations of Vossloh Group divisions in particular have been taken into account. The statements made are subject to opportunities and risks that Vossloh cannot entirely control or manage. For more information on this, please refer to the statements made regarding the Group's risk and opportunity report (starting on page 64). Actual results and developments may differ from these forecasts if the assumptions underlying the outlook prove to be inaccurate or the aforementioned risks or opportunities materialize. The Vossloh Group assumes no liability for updating the statements made in this outlook beyond statutory publication requirements.

Macroeconomic developments and outlook for the rail technology market

Global economic fluctuations only have a limited impact on Vossloh's short-term performance. Investments in rail infrastructure around the world are generally made on the basis of long-term decision-making processes. Current economic trends are therefore only reflected in the markets relevant to Vossloh to a limited degree. However over the long term, increased levels of debt in various countries, particularly in our home market in Europe, may negatively impact Vossloh's business activities. The vast majority of Vossloh's customers are publicly funded. Some countries may well implement cost-cutting measures in markets that are relevant to Vossloh if they are heavily indebted. However, there is a global trend towards sustainability, resulting in the increasing attractiveness of rail as a mode of transport and rail subsidy schemes, which is expected to lead to increased investment in the rail infrastructure products and services provided by Vossloh.

The Association of the European Rail Industry UNIFE publishes an extensive biannual analysis of developments in the global rail technology market in its "World Rail Market Study". UNIFE uses this analysis to make well-founded predictions for the coming years. The most recent study was published in September 2022. The annual global volume of the entire rail technology market is expected to grow from an average of €176 billion between 2019 and 2021 to an average of around €211 billion between 2025 and 2027 – an average growth rate of 3.0 percent per year. UNIFE estimates the market accessible to European providers, such as Vossloh, to be worth approximately €127 billion between 2025 and 2027. Accessible markets refers to the markets that are available to European suppliers and non-European markets where demand is not exclusively met by domestic capacity. For markets that can only be addressed by European suppliers via joint venture structures, only half of the market volume is classified as accessible. For comparison, a market volume of around €107 billion per year on average was considered accessible for the 2019–2021 period. The expected increase to €127 billion represents a growth of 2.9 percent per year.

The UNIFE study found that projected market growth varies significantly from region to region. The largest accessible rail technology market has been and continues to be Western Europe, with an annual volume of around €41 billion in the 2019–2021 period. Market growth of 3.9 percent per year to approximately €52 billion is anticipated between 2025 and 2027. This is followed by the NAFTA region with a current annual market volume of approximately €26 billion and future annual market volume of around €31 billion (+3.2 percent) and the Asia-Pacific region with a volume of just under €19 billion, expected to rise to around €21 billion (+2.1 percent). These three regions account for more than three quarters of the total accessible rail technology market. For the remaining regions, UNIFE expects the following growth rates in the coming years: Africa/Middle East 7.7 percent, Eastern Europe 6.7 percent, Latin America 4.9 percent and CIS (23.4) percent.

The European Rail Industry Association breaks the rail technology market down into the following segments: infrastructure, rolling stock, rail control, services and turnkey projects. In view of its Core Components, Customized Modules and Lifecycle Solutions divisions, Vossloh therefore operates in the infrastructure segment as well as the infrastructure services sub-segment of the services segment. The volume of the globally accessible infrastructure market has been quantified by UNIFE at an average of €23 billion per year in the period between 2019 and 2021. An annual growth rate of 3.8 percent is currently forecast for the 2025–2027 period. This will provide an annual market volume of approximately €29 billion. The growth forecast for the infrastructure services sub-segment until the 2025–2027 period is 1.8 percent, meaning accessible market volume is expected to increase from the current €6.1 billion per year to €6.8 billion. In total, the accessible market relevant to Vossloh between 2019 and 2021 came to around €29 billion per year. We expect it to grow to roughly €35 billion by the 2025–2027 period (+3.4 percent).

Outlook for 2023

The forecast for the Vossloh Group is based on the expected development of the three divisions Core Components, Customized Modules and Lifecycle Solutions, as well as of Vossloh AG. These relate, for example, to product perspectives, the anticipated behavior of competitors, project probabilities as well as market opportunities and risks in individual regions. Vossloh's customers are publicly and privately-owned regional, long-distance and freight transport operators whose investments are based on long-term decision-making processes within the framework of longer-term funding. Vossloh supports its customers as a partner for many years, working with them closely to plan and develop solutions for individual product and service needs. This usually involves delivery and project lead times of several months and sometimes even several years.

Outlook for management-related performance indicators

		2022	2023 forecast
Sales revenues	€ mill.	1,046.1	1,050 to 1,150
EBIT	%	78.1	79 to 88
EBIT margin[1]	%	7.5	7.2 to 8.0
Value added	€ mill.	11.5	0 to 10

[1] The range for the EBIT margin relates to the midpoint of the sales revenue forecasts.

Sales revenues expected to grow to between €1.05 billion and €1.15 billion

Vossloh anticipates sales revenues of between €1.05 billion and €1.15 billion for the 2023 fiscal year (2022: €1,046.1 million). This increase is primarily driven by the significant order backlog at the end of the fiscal year 2022. All divisions within the Group are expected to contribute to the growth in sales revenues. Vossloh expects the sales of the Fastening Systems business unit of the Core Components division to be on a par with the previous year. Vossloh expects to see an improvement in the sales revenues of the Tie Technologies business unit, due largely to a significant increase in demand in North America.

Vossloh also expects the Customized Modules division to achieve higher sales revenues driven largely by the French management company and the company in Luxembourg. The Lifecycle Solutions division is expected to report a considerable rise in sales revenues, mainly as a result of the preventive rail maintenance framework agreement concluded with Deutsche Bahn in September 2022.

EBIT expected to be between €79 million and €88 million

The Vossloh Group is forecasting a further increase in absolute EBIT for the 2023 fiscal year. All divisions are expected to contribute to the improved EBIT figure. EBIT is currently expected to come to between €79 million and €88 million. Based on the midpoint of these sales revenue forecasts, this corresponds to an EBIT margin of between 7.2 percent and 8.0 percent (2022: 7.5 percent).

Value added expected to be between €0 and €10 million

Average capital employed is expected to be slightly higher than the previous year in the 2023 fiscal year. The weighted average cost of capital before taxes (WACC) relevant for internal management purposes will be raised to 8.5 percent in the 2023 fiscal year (previous year: 7.0 percent) in line with changes in interest rates. Despite the increase in WACC, value added is expected to be between €0 and €10 million in the 2023 fiscal year.

Vossloh AG prepares its annual financial statements in accordance with the regulations of the German Commercial Code and the German Stock Corporation Act. The statements below refer to the separate financial statements. The net profit of Vossloh AG as an operational management holding company is largely dictated by administration costs and the net financial result. As expected, the administrative expenses of Vossloh AG will go up significantly in the 2023 fiscal year. This will be driven by anticipated higher wages in particular along with an increase in the size of the workforce. Vossloh expects to see a significant improvement in the net financial result compared to the previous year, as the 2022 fiscal year was negatively impacted to a significant degree by impairment losses recognized on financial investments. The result after taxes is expected to improve notably in 2023 compared to the 2022 fiscal year.

Vossloh is focused on continuing to implement its corporate strategy over the coming years. In addition to organic growth with increasing profitability, the focus is on forming specific partnerships and making specific acquisitions in order to strategically develop Vossloh's core business and sustainably increase the company's value. The forecasts presented for the 2023 fiscal year only reflect targeted organic growth.

Nonfinancial Group statement[1]

The Group nonfinancial statement of Vossloh in accordance with Sections 315b and 315c HGB for 2022 is submitted to meet the requirements of commercial law. In preparing this statement, Vossloh used the standards of the Global Reporting Initiative (GRI) to select the nonfinancial performance indicators and was guided by the principles of the United Nations (UN) Global Compact.

Vossloh is committed to sustainable corporate governance and climate action; sustainability is one of the company's five core values. The Executive Board's sustainability commitment is published on the www.vossloh.com corporate website (section "Investor relations" > "Sustainability" > "Sustainability strategy and management").

Vossloh's commitment to sustainability

enabling green mobility – for a sustainable future

Vossloh's corporate vision means "sustainable, safe and user-friendly rail mobility for a better world". As a globally successful supplier of integrated rail infrastructure solutions with a history stretching 140 years and a unique portfolio covering all aspects of rail transport, Vossloh is a major contributor to the mobility of people and transport of commodities. Rail is the safest, most efficient and most environmentally friendly mode of transport for both local and long-distance transit. Increasing rail transport is, therefore, a key prerequisite for achieving ambitious climate goals. In this context, the digital transformation happening in the rail industry opens up considerable new opportunities for rail as a mode of transport leveraging its ecological benefits further with the aim of finding a sustainable solution to the global challenges in the transport sector.

However, the company's responsibility is not limited to paving the way for sustainable mobility. Vossloh is convinced that successful companies have to include economic, social and ecological factors in their decisions and behavior. Long-term success requires contributing to the well-being of society and ensuring a safe future for the next generations. Vossloh has therefore consciously chosen sustainability as one of its corporate values: "We take responsibility and care for the world around us."

Sustainability strategy and management

Importance of sustainability for the Vossloh business model

Vossloh offers products and services that keep rail routes performing at a high level and facilitate more widespread rail use. The aim is to increase the availability of existing tracks, facilitate efficient and trouble-free operation, and reduce infrastructure lifecycle costs. For further information on the business model, please refer to page 36 et seq.

Group-wide sustainability strategy

In keeping with its guiding principle "enabling green mobility", Vossloh is a driving force behind customer-focused, innovative and sustainable products and services for rail transport. This motto is also reflected in Vossloh's sustainability strategy. Since the 2021 fiscal year, Vossloh has pursued a revised Group-wide sustainability strategy in order to centrally align and focus sustainability activities within the Group, to further improve Vossloh's positive impact on the environment and society, and to improve the transparency of the Group's sustainability performance. Vossloh AG's Executive Board adopted the sustainability strategy and the guideline supporting it in 2021. Vossloh's sustainability commitment, with which the Executive Board underlined and reaffirmed Vossloh's motto and focus, was published on the company's website.

[1] Not part of the financial statement audit, but part of an audit to obtain limited assurance. The independent auditor's report can be found on page 114 et seq.

The sustainability guideline provides the Group-wide organizational framework and sets out the principles for all Vossloh's sustainability measures and initiatives. The guideline defines in particular the scope of action, as well as organization, responsibility and processes. The direction and focus of sustainability measures were set by a materiality analysis in order to determine the sustainability topics relevant to Vossloh. Specific sustainability goals are then set in relation to these key topics. These goals are pursued through sustainability initiatives and the integration of environmental and social aspects into the company's business and decision-making processes. Vossloh is using internal and external communication to make its sustainability performance transparent and also to further strengthen the commitment of its employees on the way to becoming a sustainable company.

Group-wide sustainability program

Vossloh has divided its sustainability activities into eight areas of action, which enable a targeted and efficient pursuit of the material topics identified in the materiality analysis.

- Sustainability strategy and management
- Environmental and climate protection
- Safe and sustainable mobility
- Occupational health and safety
- Human resources and leadership
- Good corporate citizenship
- Sustainable supply chains and operations
- Business ethics and human rights

The overarching area, "Sustainability strategy and management", provides the framework for the seven other areas as well as for the Group's future approach.

Sustainability organization

The Group's Executive Board bears overall responsibility for all sustainability topics and ensures that Vossloh lives up to its ecological, economic and social responsibilities and makes a positive contribution to the environment and society. In operational management, sustainability is the responsibility of the Chief Operating Officer (COO). In addition, Vossloh AG has the Corporate Sustainability department. Created in 2020, the role of head of Corporate Sustainability, who reports directly to the Executive Board, is responsib-le for the development and implementation of the sustainability strategy as well as for the management of Group-wide sustainability initiatives. In addition, the Executive Board has established a Group Sustainability Committee to centrally manage all sustainability measures within the Group. The committee is run by the head of Corporate Sustainability. Its members include the division heads of key central offices at Vossloh AG as well as the managing directors and sustainability officers of the business units. In addition, each business unit has appointed a sustainability, health and safety officer.

EU Taxonomy and external ratings

100 percent of sales revenues are taxonomy-eligible; 64 percent are taxonomy-aligned

Vossloh has implemented the EU Taxonomy Regulation reporting obligations since the 2021 fiscal year. The EU taxonomy provides a standardized classification system for defining environmentally sustainable economic activities. As in the previous year, 100 percent of the sales revenues in the reporting year 2022 are classified as taxonomy-eligible. The share of environmentally sustainable and thus taxonomy-aligned sales revenues – the majority of which relate to electrified routes – increased to 64 percent in the fiscal year (previous year: 62 percent). Both of these figures are once again excellent and underline Vossloh's sustainable business model. Detailed information on the requirements of the EU taxonomy, a comprehensive and detailed description of the implementation of these requirements at Vossloh as well as the required key figures according to Annex II to the Commission Delegated Regulation can be found on page 103 et seq.

Ratings underpin Vossloh's sustainability performance

For many years, rating agencies have assessed and recognized Vossloh's sustainability performance on a regular basis. Among other things, the company currently has a "prime status" according to Institutional Shareholder Services (ISS) ESG, which places Vossloh in the top 10 percent of its sector. EcoVadis has also awarded Vossloh silver status, and the score obtained means the company ranks among the top ten percent of all companies assessed. MSCI ESG Research upgraded Vossloh's rating from A to the second-best rating of AA (on a scale from AAA to CCC) in the reporting year 2022. Such rankings play a special role for Vossloh: the company was one of the first companies in Germany to place a sustainability-oriented hybrid note at the beginning of 2021. The redemption amount of the note is linked to the company's sustainability performance as measured by ISS ESG and MSCI ESG Research ratings.

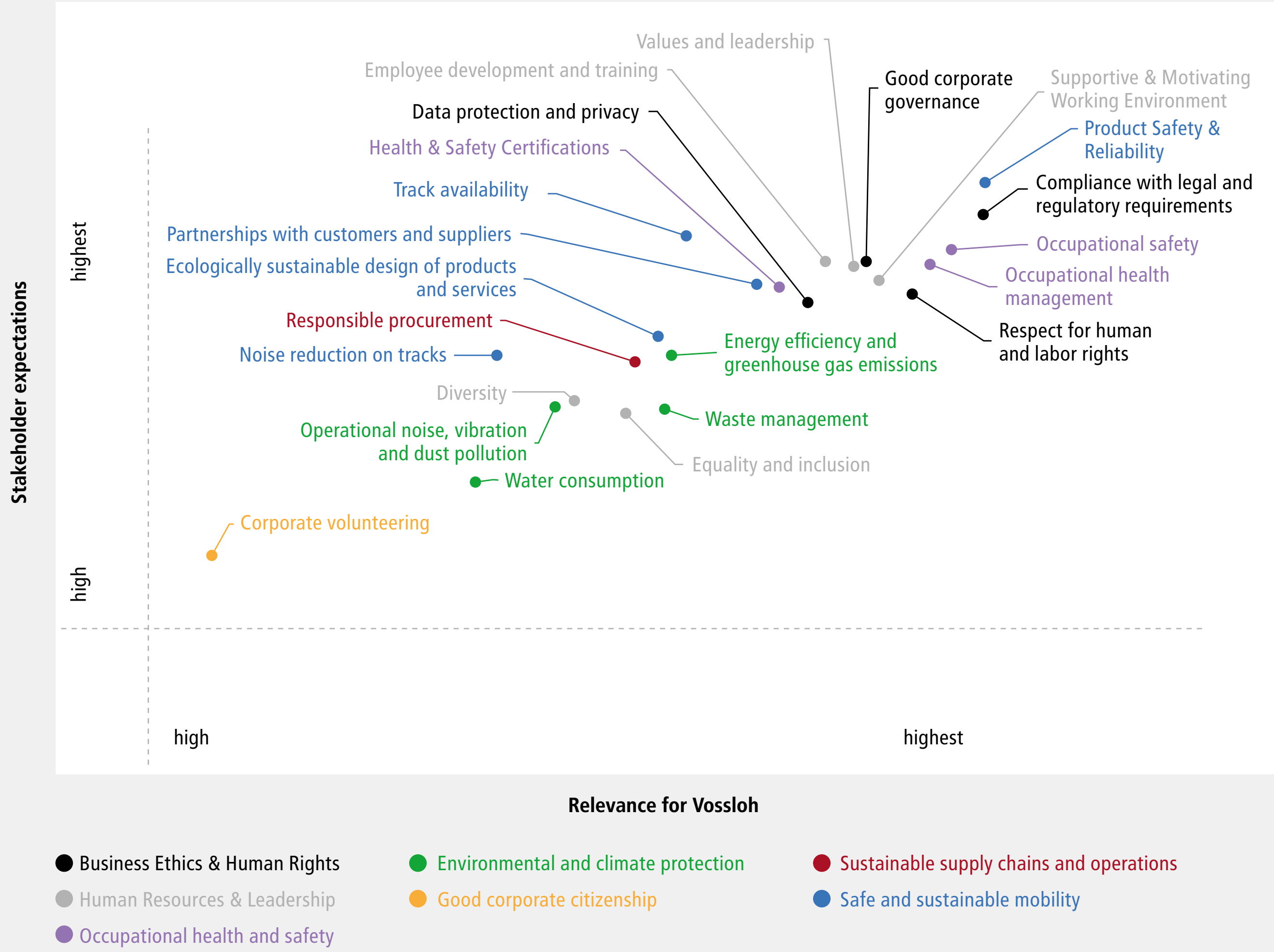
Another criterion for the assessment of Vossloh's sustainability performance is certification in accordance with internationally recognized norms and standards. The great majority of Vossloh units have certifications in at least one of the international quality, environmental, energy efficiency or occupational health and safety standards such as ISO 9001, ISO 14001, ISO 50001, ISO 45001 or its predecessor standard OHSAS 18001, or a comparable national standard and have corresponding management systems in place. As in the previous year, 98 percent of Vossloh employees were employed at a site with one or more of these certifications as of December 31, 2022. 97 percent of operating companies have at least one of these certifications.

Sustainability topics, goals and initiatives

Reporting on nonfinancial topics

In order to identify the relevant sustainability topics, Vossloh conducted a materiality analysis in 2021 with the participation of representative external and internal stakeholders as well as the Group Sustainability Committee and the Executive Board. To this end, a total of 38 potentially relevant sustainability topics were divided into seven areas of action. As part of the materiality analysis, 198 representative stakeholders were surveyed, including 53 external participants. The ranking and prioritization of the sustainability topics were determined by linking stakeholders' expectations to the relevance for Vossloh in each focus area. The Executive Board and Group Sustainability Committee identified a total of seven focus topics to guide the company's further sustainability efforts, each of which was assigned a specific sustainability target. There was no need for any changes or additions with regard to the selection of topics and targets in 2022. For this reason, the report below once again covers 23 individual topics in seven areas of action.

Sustainability areas of action



This statement also reports on how the Group implements the ten principles of the UN Global Compact.

The nonfinancial statement covers Vossloh's global activities. The companies considered correspond to the scope of consolidation of the consolidated financial statements (see "Consolidation" section, page 128 et seq). The management report contains supplementary and/or more detailed information regarding a number of the nonfinancial topics and these are cross-referenced accordingly. The company's risk reporting covers all major risks associated with Vossloh's business activities. It also includes the major nonfinancial risks to which Vossloh may be exposed (see "Nonfinancial risks and opportunities" section on page 70).

Group-wide sustainability goals and initiatives

The table below indicates the seven areas of action with the relevant Group-wide sustainability goals assigned to sustainability factors in accordance with Section 289c HGB:

	Sustainability aspects	Areas of action	Group-wide goals
Sustainability strategy and management	Environmental matters	Environmental & climate protection	- CO_2 neutrality by 2030 (Scope 1 and Scope 2)
	Employee matters	Occupational health and safety Human resources and leadership	- 20 percent annual reduction in the frequency of workplace accidents - introduction and implementation of the new value-based Vossloh leadership principles -implementation of a Group-wide diversity, equality and inclusion policy
	Social matters	Good corporate citizenship	- implementation of a corporate volunteering program to enhance social commitment
	Respect for human rights Combating corruption and bribery	Business ethics and human rights Sustainable supply chains and operations	- 90 percent sustainable strategic sourcing volume by 2025
	Other topics	Safe and sustainable mobility	- reduction of the ecological footprint of Vossloh's products and services along the entire value chain

Key performance indicators are defined for all of the above goals, which can be used to measure the degree to which they have been achieved. At the end of 2021, the company also launched a Group-wide sustainability initiative for each goal. These initiatives were continued in 2022 and have produced some initial results, which are covered in the respective sections. Reports on all activities were prepared for the Group Sustainability Committee and the Executive Board on a regular basis.

In addition to these areas of action and sustainability goals, which apply to the entire Group, a wide range of other sustainability initiatives are being implemented in the various business units and at the company's sites. As of December 31, 2022, there were a total of 44 ongoing sustainability initiatives.

Environmental and climate protection

The Vossloh Group takes care to make efficient use of resources and minimize its environmental impact. The continuous optimization of the use of materials, energy and personnel as well as the ongoing enhancement of processes are an integral part of day-to-day business for business management reasons alone. This applies to the manufacture of rail infrastructure products and components as well as the provision of rail track services. In addition, environmental officers have been appointed to tackle relevant issues at the Group companies' sites and corresponding reporting systems have been installed. As of December 31, 2022, 84 percent (previous year: 83 percent) of the Vossloh workforce was employed at a unit bearing ISO 14001 certification. 65 percent of operating companies have been certified in this way.

In terms of "Environmental & climate protection", Vossloh identified four topics as relevant in the materiality analysis.
- Energy efficiency and greenhouse gas emissions
- Operational noise, vibration and dust pollution
- Water consumption
- Waste management

These are described in more detail below. The Group-wide sustainability goals defined for this area relate to the individual topic „Energy efficiency and greenhouse gas emissions"; all related measures and progress are covered in that section.

Energy efficiency and greenhouse gas emissions

Vossloh is particularly focused on CO_{2e} (CO_2 equivalents) emissions due to their impact on climate change. The company has set itself the goal of achieving CO_{2e} neutrality (Scope 1 and Scope 2) in stages by 2030. The extent to which this aim is achieved is measured using the indicators for CO_{2e} emissions, CO_{2e} intensity (CO_{2e} tons /sales revenues in € million) and energy intensity (energy consumption in MWh/sales revenues in € million). Energy intensity and CO_{2e} intensity are the key indicators used by Vossloh to measure its progress in terms of energy efficiency and minimizing CO_{2e} emissions, while also taking the company's growth targets into account.

As part of the Group-wide Carbon Neutrality 2030 (Scope 1 & 2) initiative, a cross-divisional team led by the head of Corporate Sustainability introduced plans to reduce energy consumption and CO_{2e} emissions in 2022 with a focus on both the most energy-intensive processes and equipment and the most CO_2-intensive energy sources. The project team compiled data on the initial situation in all units, established detailed targets and defined the measurement tools. The next step was to train employees in all departments.

A comprehensive package of measures was put together at the level of each individual company and site to help them achieve annual reduction targets in stages. Some projects based on these measures were implemented in 2022 and have produced some initial results. For example, all of Vossloh's sites in Germany as well as several units in Serbia, Finland, Sweden, the UK and the Netherlands now use „green" energy for all of their electricity needs. Over the next few years, Vossloh expects its action plans to result in a continuous reduction of direct and indirect CO_{2e} emissions in relation to the Vossloh Group's sales revenues.

The following tables present the consumption of significant energy sources within the Vossloh Group for the year under review and the comparative figures from 2021:

MWh (Vossloh Group)	2022	2021
Gas consumption	80,391.6	90,854.2
Electricity consumption	74,454.5	71,529.5
District heating consumption	3,887.7	4,586.4

Liters (Vossloh Group)	2022	2021
Heating oil consumption	101,638.0	244,403.1
Fuel consumption	1,744,685.5	969,009.0

The amount of Vossloh's carbon and greenhouse gas (GHG) emissions was determined, as in previous years, on the basis of the Greenhouse Gas Protocol in the categories of scope 1 and scope 2. The results were as follows:

t CO_2 equivalents, scope 1 (Vossloh Group)	2022	2021
Gas consumption	14,676.2	16,643.5
Heating oil consumption	258.2	620.8
Fuel consumption	4,384.4	2,390.8
Scope 1	**19,318.8**	**19,655.1**

t CO_2 equivalents, scope 2 (Vossloh Group)	2022	2021
Electricity consumption	24,281.6	26,496.0
District heating consumption	1,252.2	1,333.4
Scope 2	**25,533.8**	**27,829.4**

The following table shows the energy and Co_{2e} intensity, each in relation to the Vossloh Group's total sales revenues.

Energy and CO_2 equivalent intensity (Vossloh Group)	2022	2021
Energy intensity (MWh/€ million)	170.4	190.7
CO_{2e} intensity (CO_{2e} tons/€ million)	42.9	50.4

The Vossloh Group noticeably reduced its CO_{2e} emissions (Scope 1 and 2) in the 2022 fiscal year despite a significant increase in sales revenues. While sales revenues went up by 11.0 percent, scope 1 and scope 2 emissions declined by 5.5 percent compared to the previous year. In 2022, Vossloh reduced its CO_{2e} intensity, i.e. its CO_{2e} emissions in tons per € million in sales revenues, by a significant 14.9 percent. This remarkable improvement was mainly driven by a major decrease in gas consumption, especially as a result of efficiency improvements and intensified energy-saving measures, which more than offset a significant increase in fuel consumption due to increased business and travel activities. The lower CO_{2e} intensity was also due to a steadily increasing share of green or lower carbon electricity purchases.

Vossloh does not have sufficient data yet to determine the greenhouse gas emissions relating to the upstream and downstream areas (Scope 3).

All the divisions have been making investments to reduce energy consumption and boost energy efficiency for years. Exemplary measures are the conversion of lighting to LED technology, the use of lost heat from production at several sites and the switch of an increasing number of units over to green energy providers. The units are performing systematic reviews to determine whether installing photovoltaic systems and/or heat pumps could help them to become more energy-efficient. In 2022, the Customized Modules division commissioned an investigation into whether selected sites could integrate a biomass power plant into their energy supply. Energy consumption is an essential decision-making criterion for investment choices and process optimization, particularly in light of rising energy prices. In 2022, Vossloh optimized the heating at its production facilities and administrative buildings, with a particular focus on its European sites. This allowed us to save a significant amount of energy and reduce CO_{2e} emissions while still ensuring pleasant working conditions.

The company's operating units are working on further reducing CO_2 emissions through a wide range of measures. Energy efficiency was one of the guiding principles followed by Vossloh Fastening Systems when building and outfitting the „Factory of the Future" in Werdohl. Thanks to this focus, the amount of energy used per 1,000 bent tension clamps is now significantly lower compared to the previous production process. Despite this success, the company is always looking for further opportunities to improve – even on a small scale. Making changes to the weekend shutdown of the pickling line and the compressed air leakage testing system were two of the ways Vossloh saved electricity in 2022. The Fastening Systems business unit is also investing in renewable energies. Solar panels have been ordered for the Werdohl site. These are due to be installed in 2023 and will supply up to 560 MWh of energy annually when fully operational. Our site in Anyang, China, also began the process of installing a photovoltaic system on the roof of its plant in 2022. Vossloh started planning the installation of solar cells and heat pumps at its Polish production site.

Along with other measures, the Customized Modules division introduced an energy-based „Gemba“ concept to make it easier to assess the current situation on site during plant tours or training sessions and raise awareness. Rooftop solar systems were installed at an Indian site to cover some of the site’s energy needs. Another Indian site significantly reduced its gas consumption by upgrading its heat treatment plant for switch castings. Significant improvements were made in heating oil consumption at a site in the UK through the use of new and more efficient boilers and continuously monitoring temperatures.

Operational noise, vibration and dust pollution

In the manufacture of its products and in the provision of its services, the company endeavors to keep noise and dust emissions as well as oscillations and vibrations at the relevant sites as low as possible to minimize the impact of track construction work on employees, residents and nearby facilities. Vossloh Fastening Systems fitted the bending presses at the Werdohl plant with soundproof booths in 2022. Noise-emitting equipment was also installed at several sites in the Customized Modules division in 2022.

Water consumption

In Vossloh factories, water is mainly used for surface treatment of products, as a coolant in various production processes and for the production of concrete ties. Vossloh units obtain the water from the respective local public water suppliers. The company is committed to using this basic resource as efficiently as possible. As such, used water is reprocessed in our own plants and returned to the operating process, particularly in production areas that require a substantial amount of water. In some cases, the production units work with closed water circuits. At all of its sites, Vossloh disposes of wastewater via the respective public sewage systems. Process water that is heavily contaminated during production is first treated in our own wastewater treatment plants in such a way that it (at least) meets the discharge standards of the public systems.

The following table illustrates the Vossloh Group’s water consumption as determined by the meters:

m^3 (Vossloh Group)	2022	2021
Water consumption	177,797.6	178,173.3

Water consumption was slightly lower than in the previous year despite the notable increase in Group sales. The decrease was mainly due to significantly more efficient water use at the Fastening Systems business unit’s production sites. Particularly in Germany water consumption was significantly reduced at the new production facility in Werdohl.

Waste management

As part of their sustainability strategy, management within Vossloh companies has set a goal of using natural resources responsibly and sparingly. Material consumption and disposal quantities are recorded and monitored in the individual units. Vossloh units use safe disposal methods that are separated according to waste types. The selected waste management companies are then reviewed regularly. Where it is technically possible and practical, closed material life cycles and reprocessing plans reduce the consumption of valuable new raw materials to a minimum.

Recycling can reduce the need for raw materials and the amount of waste produced. Economically viable recycling programs and processes ensure that the amount of waste ultimately sent to landfill sites at Vossloh is steadily on the decline. Steel scrap and plastic are recycled at all sites. At several sites, Vossloh Fastening Systems is using reusable transport containers. Vossloh Tie Technologies recycles process water on a large scale. Customized Modules further processes the packaging of the delivered raw materials in Fère-en-Tardenois. In 2022, the division continued a project that was launched in 2021 to further increase the percentage of recycled steel used in the casting of frogs.

Downcycling, i.e. the reprocessing of materials without preserving their original quality, is another way to extend the lifecycle of a material. At Vossloh Rail Services, for example, nonreprocessable residue from grinding stones is used as an additive in slag production.

Safe and sustainable mobility

The importance of rail as a mode of transport is growing enormously, especially against a backdrop of ambitious climate protection goals. Moving greater levels of traffic onto the rail network is a core part of sustainable, environmentally and climate-friendly mobility.

In the area of „Safe and Sustainable Mobility", Vossloh's materiality analysis identified the following five topics of relevance to Vossloh:
- Track availability
- Product safety and reliability
- Noise reduction on tracks
- Ecologically sustainable design of products and services
- Partnerships with customers and suppliers

These are described in more detail below. The Group-wide sustainability goals defined for this area relate to the individual topic „Ecologically sustainable design of products and services"; all related measures and progress are covered in that section.

Track availability

In light of the limited amount of funds available for investment and in view of lengthy planning and approval times for the construction of new rail lines, more efficient use of existing rail lines is becoming increasingly important – through greater utilization, higher travel speeds or longer (and heavier) trains. However, the higher the load on the rail infrastructure, the greater the wear and the more important ongoing monitoring and maintenance becomes in order to avoid failures. Vossloh can make two contributions to increase the availability of rail tracks: On the one hand, Vossloh can develop and manufacture products that are more durable and require less maintenance. On the other hand Vossloh can also play a part in making rail network maintenance more efficient. When it comes to switch and rail maintenance, Vossloh covers the entire range of requirements for corrective milling and preventive grinding: In mainline and mass transit networks alike, the company's high speed grinding (HSG), high performance milling (VTM performance), multipurpose milling (VTM compact) and Flexis system offer tailored solutions for every type of rail line that extend the service life and usability of rail infrastructure. Vossloh provides welding services and logistics expertise ranging from rail and switch replacement to the complete overhaul of rail lines.

In doing so, the Group combines the use of its innovative grinding and milling technologies with a diagnosis of the condition of the infrastructure. It is precisely in this area that digitalization opens up considerable potential, especially for condition-based and, in the future, predictive maintenance. Rail and switch condition data from track-based systems are supplemented by the diagnostic data provided by the grinding machines equipped with measuring technology. Applications such as mapl-e and MR.Pro will merge the collected data into Vossloh's cloud-based platform, provide a quick overview of the need for action for the line (sections) and suggest appropriate measures for damage prevention or repair. The benefit is self-evident: Smart maintenance is based on the actual need for action instead of servicing at fixed intervals as in the past. At the same time, Vossloh's grinding machines are designed to be incorporated into scheduled traffic. This means that rail lines no longer have to be closed for maintenance.

Product safety and reliability

Vossloh's products and services are subject to detailed technical specifications and standards that must be met. All the main production plants have quality management in accordance with ISO 9001 or a comparable national standard like the AAR's M1003 standard in the USA. As of the reporting date, December 31, 2022, 96 percent (previous year: 97 percent) of the Vossloh workforce was employed at a unit bearing this certification. 94 percent of operating companies have been certified in this way.

The products and services generally undergo thorough testing that often lasts for years before they are applied to the tracks. This is performed on the company's own test benches and in its own testing laboratories, with test usage by the customers and as part of the complex approval process of certified testing organizations. All of Vossloh's business units have their own Research and Development departments, which are staffed by highly specialized professionals (see the "Research & Development" section on page 59 et seq.).

Through the use of tailored instructions, briefings, consulting, training and seminars both before and after delivery, Vossloh ensures that its customers' employees can handle the company's products appropriately. Sales and Technology specialists are available to handle customer questions.

To minimize possible issues jeopardizing the safety of its products and services, Vossloh is very careful in its choice of suppliers. These are chosen by the individual operating units with their specific expertise. These subject potential suppliers to a comprehensive assessment before they are commissioned for the first time, based on a self-assessment by the supplier. A key aspect is a supplier's unfailing ability to meet the quality standards stipulated by Vossloh. Product quality, service and delivery reliability are crucially important factors in this context. All of Vossloh's partners are repeatedly assessed on the basis of fixed aspects, in particular concerning quality. Contracts are only awarded to companies on the list of approved suppliers. Vossloh suppliers must generally be able to guarantee at all times that their goods and services meet the applicable regulatory and statutory requirements.

Noise reduction on tracks

Reducing the noise caused by rail traffic and improving track acoustics have been a focus of Vossloh's research and development work for years (see also "Research and development" on page 59 et seq.). Because tackling noise at its source is a particularly effective approach, Vossloh is taking steps to optimize the contact between wheel and rail. The company offers suitable products and services in all divisions that can reduce rail noise on a sustainable basis. Examples are the cellentic components and rail fastening systems with a high plastic content that dampen structure-borne noise, the so-called whisper switches and rail machining technologies (grinding, milling) for restoring a smooth and, therefore, quiet surface. The rail and switch maintenance machinery can achieve noise reduction of up to 10 dB(A) by precisely removing material. The machines themselves also operate extremely quietly. For example, the milling machine VTM compact, generates noise measuring less than 78 dB(A) during operation, so that residents are not disturbed even during a night shift. For comparison, on a quiet residential street, the noise level is roughly 40 dB(A); a car going 50 km/h reaches a volume of 70 dB(A).

Ecologically sustainable design of products and services

For economic reasons alone, all entities of Vossloh aim to use resources as sparingly as possible. Sustainability criteria have been incorporated into the development and design process for new products and services for years. In 2021, all innovation processes were harmonized across business units with the help of the Group-wide innovation guideline (Innovation Playbook). In 2022, the approaches and criteria our business units use to design sustainable products and services were compiled so that they could be standardized. The company also made additions to the corresponding Innovation Playbook and prepared detailed recommendations for action with a focus on the sustainability aspects of low energy consumption (and low carbon emissions) and avoiding the use of problematic raw materials. The entire life cycle of a product is taken into account from the outset, including its recycling and/or disposal. Vossloh also analyzes the long-term impact of its services on the basis of life cycle assessments in accordance with international standards such as ISO 14040 or 14044.

The current Group-wide sustainability initiative aims to reduce the environmental footprint of products and services along the entire value chain. A life cycle assessment (LCA) was carried out on the basis of one or more products from all three divisions using the „cradle to grave" approach. The results are being integrated into the innovation and development process for products and services as EcoDesign principles in order to minimize their impact on the environment. The views of customers and suppliers and their needs regarding sustainability are also incorporated into the development process at an early stage in order to achieve a good product-market fit.

Suitable LCA software and a database system were selected in parallel to the life cycle assessments. At the end of the year, (at least) one product or service in each division had undergone an LCA with a focus on carbon emissions. The amount of effort required to analyze a product or service varies significantly between business units. In 2023, the results of the LCAs will be used to identify the changes which are most likely to result in the highest reduction in carbon emissions. The Fastening Systems business unit has so far documented the environmental impact of 19 products from their development to the time that they leave the factory. Vossloh Rail Services carried out its first life cycle assessment for a HSG-city railgrinder in the third quarter using the same approach.

Partnerships with customers and suppliers

Customers have always been considered partners of Vossloh, in part due to long-standing business relationships, especially in the development and market launch of new products, services or business models. For example, the Core Components and Customized Modules divisions frequently carry out test installations on selected customer tracks. In the recent past, for example, the novel composite tie Engineered Polymer Sleeper (EPS) has been tested in the USA, Sweden, Romania, Finland and Germany, among other countries. The new MIM-H digitally controllable point machine was subjected to similarly thorough field tests at track operators in several countries. Vossloh Fastening Systems has partnerships in place for the development of a new rail fastening system for slab tracks in cities and a customized fastening system for a rail-bound automated means of transport (people mover), among others. The grinding and milling machines belonging to the Lifecycle Solutions division also demonstrated their initial market readiness in test applications at customer sites. The multiyear framework agreement with Trafikverket for condition monitoring of a total of 1,000 switches in Sweden is another example of the kind of partnerships that Vossloh cultivates with customers. Here, the strategies for an efficient and targeted approach are developed jointly and decisions on concrete measures are made after close consultation.

The prerequisite for such close cooperation is satisfied customers, which is why the Vossloh units attach great importance to structured feedback – also in order to learn from any mistakes. The uniform Customer Relationship Management (CRM) software rolled out across the Group includes a tool for assessing customer satisfaction using specific questions linked to customer groups.

In 2022, several business units gathered customer feedback in different ways. In Germany, for instance, Vossloh Fastening Systems once again asked a small group of loyal customers for a review and conducted broader surveys in China and Poland. Vossloh Switch Systems performed surveys at several sites based on the „Net Promoter Score" system. The results showed a high level of satisfaction with Vossloh's products and services. Isolated points of criticism led to improvements being implemented promptly.

Vossloh also enters into partnerships with suppliers to ensure that their products exactly meet Vossloh's requirements. One example is CogX: The heat-treated laminated steel for frogs and point blades was developed by Vossloh Switch Systems together with Arcelor Mittal. For the construction of the SF03 W-FFS rail milling train, which incorporates the highly complex technology for the complete reprofiling of rail lines in just one operation, Vossloh Rail Services is relying on its proven cooperation with Linsinger. All sensors for monitoring the switches in Sweden are supplied by a partner who, together with Vossloh, has adapted the products to the conditions prevailing there.

Occupational health and safety

Ensuring the health and safety of all employees and others on our premises lies at the heart of Vossloh's duty of care. The company aims to have as many units as possible certified in accordance with the internationally recognized ISO 45001 standard (see also "Health and Safety Certifications" on page 91 et seq.). The standard provides the company with suitable tools and measures to integrate occupational safety and health protection into its processes. For the managers of the operating units, attainment of the defined occupational safety performance indicators is an integral part of their pay-related target agreements. Since 2021, an occupational health and safety training module has been available to all employees via the Vossloh Learning Platform (VLP).

Vossloh's materiality analysis identified the following three issues of relevance in connection with occupational health and safety:
- Occupational safety
- Occupational health management
- Health and safety certifications

These are described in more detail below. The Group-wide sustainability goals defined for this area relate to the individual topic „Occupational safety"; all related measures and progress are covered in that section.

In the past year, the ongoing COVID-19 pandemic again presented Vossloh with the challenge of protecting the health of its employees and preventing the spread of the virus in the workplace. Coordinated via the COVID-19 crisis team, comprising the chief operating officer, the heads of the Corporate Sustainability, Corporate Human Resources and Corporate Controlling divisions, and the HSE managers of the business units, the comprehensive protective and precautionary measures were maintained and readjusted as necessary. The Group Works Council, local employee representatives and the Work Safety Committee were involved in the decisions. The company's employees were informed about the impact of vaccination against the virus. In some cases, units even conducted on-site vaccinations.

Although the course of the disease was typically milder than at the beginning of the pandemic, production workers were still instructed to stay at home and get tested if they suspected they might have the virus. Working time models with a certain amount of remote work were developed for the employees in the administrative areas. These models will be maintained going forward to improve the work-life balance of our employees and foster an encouraging working environment.

Occupational safety

There has been a permanent Group-wide occupational safety body within Vossloh since 2012 in the form of the Work Safety Committee. This has initiated important steps to harmonize the occupational safety conditions across the various divisions in recent years. For example, a standard occupational safety policy has been developed, which is mandatory for all companies around the world. This policy defines the vision of the zero accident strategy. The Work Safety Committee also played a key role in the development of the Group's own SAFE+ accident prevention app.

One of the aims of the current Group-wide sustainability initiative is to reduce the frequency of workplace accidents by 20 percent annually. Relevant key figures for goal achievement are the internationally used variables such as lost time accident frequency rate (LTAFR) and lost time accident severity rate (LTASR), as well as the number of potential accident risks reported and minimized via the SAFE+ app.

The Work Safety Committee, headed by the head of Corporate Sustainability, plays a key role in implementing this policy in close coordination with the Group Works Council. In the 2022 fiscal year, the Committee continued to focus on the various measures and programs used to improve occupational safety at Vossloh. The Work Safety Committee launched a new global training campaign to encourage employees to identify and report occupational safety risks entitled „See Something. Say Something." and put together a self-evaluation plan which all sites can use to assess their occupational safety measures. One of the key aims of the plan is to encourage everyone within the Group to learn together and from each other and continuously improve occupational safety at Vossloh.

In line with this, the full Executive Board meets with the heads of the business units on a quarterly basis to discuss the latest developments in terms of occupational safety, the frequency, severity and causes of workplace accidents, as well as the preventive and corrective measures implemented in response.

All of these measures had a very positive impact on occupational safety at Vossloh in the 2022 fiscal year. Workplace accidents have been documented at Vossloh on the basis of uniform criteria, over and above what is required by law. Accidents resulting in lost time due to an employee's ill health are reported directly to the Executive Board.

Workplace accidents (Vossloh Group)	2022	2021
Lost time accidents (LTA)[1]	107	118
Lost time accidents frequency rate (LTAFR)[2]	13.6	16.4
Lost time accidents severity rate (LTASR)[3]	1.6	2.8

[1] Accidents resulting in injury-related absence of employees or temporary staff involving lost time of at least 1 hour.
[2] Frequency of accidents resulting in injury-related absence of employees or temporary staff involving lost time of at least 1 hour, measured in the number of workplace accidents in relation to the cumulative actual work time, based on 1 million hours worked.
[3] Severity of accidents resulting in injury-related absence of employees or temporary staff involving lost time of at least 1 hour, measured in the duration of lost time in relation to the cumulative actual work time, based on 1,000 hours worked.

The accident frequency rate (LTAFR) was reduced by 17.1 percent last year compared to the previous year. Vossloh succeeded in reducing the severity of accidents (LTASR) by a significant 42.9 percent.

As in the previous year, there were no work-related fatalities in the Vossloh Group in 2022.

Both accidents with and without lost time and near accidents are analyzed at Vossloh in order to learn from them for the future and reduce the number of accidents at all the company's sites. Prevention is a matter of importance to the company in order to stop workplace accidents from happening in the first place. This includes regular conduct-based safety inspections designed to raise safety awareness among the employees, regular safety instruction and training for all the staff, online training sessions on safety-relevant subjects, the provision of comprehensive protective equipment, safety markings at the various workstations and awareness campaigns. Impressive videos or safety flashes (anonymized summaries) of accidents are also frequently used. The "Four seconds for safety" campaign is regularly discussed at the start of a working day or a get-together within the wide, with brief reference being made to a specific safety aspect, and not just in the production area.

The SAFE+ app plays an important role in minimizing potential risks and consequently achieving the goal of reducing the frequency of workplace accidents by 20 percent annually across the Group. As of December 31, 2022, SAFE+ was available in English, French and German. A version with other languages used within the Group will be made available in 2023. Vossloh employees use the app to report safety risks which they spot at work in order to systematically reduce hazards at all sites and in all areas. During 2022, employees reported a total of 1,309 potential accident risks, 975 of which (74 percent) were minimized without delay.

If employees have to travel internationally for their work for Vossloh, they can make use of the Group's travel safety management system. They will then receive comprehensive support with regard to medical and safety aspects of their trip, as well as precautions for possible emergencies. The company's Travel Security Managers and worldwide Assistance Centers, in addition to a service provider's assistance app, are available for this purpose.

Occupational health management

Vossloh's occupational health management aims to offer all employees preventive healthcare. This includes the occupational safety measures already mentioned, workplace ergonomics, driver safety training and company medical care, as well as making fruit available on a daily basis, nutritional counseling, company sports (including running groups and yoga courses), help quitting smoking, and preventive measures (including colorectal cancer screening, flu vaccinations, health screening and health tips).

The „VFS stays healthy" initiative was launched at Vossloh Fastening Systems in Werdohl in 2022 with a focus on musculoskeletal disorders, cardiovascular diseases, stress management and nutrition. Employees were given free trials at the local gym, trained for a company run, went on a city bike ride, took part in workshops dealing with mental stress and attended talks on nutrition. In the Customized Modules division, employees have been receiving psychological support as required, thanks to a 24/7 telephone hotline.

In 2022, together with experts from the service provider pme Familienservice GmbH, Vossloh continued to support its employees at its German sites faced with challenging situations in which family members required particularly close attention – from childcare to caring for relatives or personal crises. Vossloh made preparations to introduce a supplementary company health insurance policy as of January 1, 2023 during the period under review. The comprehensive range of benefits is available to employees at every subsidiary in Germany. This includes 300 euros per year covered by their employer which they can use for a variety of medical services.

Health and safety certifications

Vossloh attaches great importance to workplace safety and protecting its employees' health. The introduction of a corresponding management system and certification integrates current requirements into the ongoing processes of a company. The mandatory audits by independent external auditors ensure that legal obligations and requirements are met. The ISO 45001 standard is internationally recognized in this field, replacing the formerly more common OHSAS 18001 (Occupational Health and Safety Assessment Series) standard. At the end of 2022, the units certified according to this standard employed around 89 percent (previous year: 88 percent) of Vossloh's workforce. 81 percent of operating companies have been certified in this way.

In June 2022, the Vossloh Fastening Systems plant in Anyang, China, successfully completed the ISO 45001 audit on its first attempt. The Dutch company Vossloh ETS BV was included in Vossloh Rail Services' group certification in 2022. In the Customized Modules division, the Bydgoszcz site was ISO 45001 certified for the first time in 2022, while the plant in Malaysia was certified at the beginning of 2023. Vossloh is committed to ensuring that new units which join the Group are ISO 45001 certified as quickly as possible.

Human resources and leadership

A committed and inspired workforce is the bedrock of the company’s long-term success. Vossloh, therefore, attaches great importance to fair labor conditions. Key topics in this regard are equal opportunity, continuing professional development opportunities in all areas, fair remuneration, additional company benefits (above and beyond the statutory and/or tariff-based arrangements), and a motivating working environment. Observance of local statutory regulations and standards forms part of the compliance obligation (see “Compliance” section on page 98 et seq.).

In terms of „Human resources and leadership“, Vossloh‘s materiality analysis identified the following five topics as relevant to Vossloh:
- Values and leadership
- Employee development and training
- Supportive and motivating working environment
- Equality and inclusion
- Diversity

These are described in more detail below. Two Group-wide sustainability goals have been defined for this focus topic. One goal relates to „Values and leadership“, while the other relates to „Diversity“. Information on measures and progress can be found in the relevant sections.

Values and leadership

The „One Vossloh“ guiding principle is gathering steam. Following a successful restructuring, a focus on rail track and the inclusion of sustainability in corporate values and the corporate strategy, Vossloh is working on a new conception of the Group for internal and external communication. Three leadership principles were established as part of the Group-wide sustainability initiative at the end of 2021: “we create value for Vossloh”, “drive constant improvement” and “we are close to our people”. These value-based guidelines apply in equal measure to management and all employees at Vossloh. Indicators were defined in 2021 to provide a transparent process for determining whether decisions are made in line with these leadership principles. Training sessions on this topic were held throughout the Group in 2022 accompanied by a communications campaign. By the end of 2022, over 80 percent of all managers at the company had completed training on the leadership principles. A two-day workshop on how to give customers the best possible impression of Vossloh was also offered to sales employees in all business units.

A uniform Group-wide talent and succession planning process was introduced in 2021 and rolled out globally over the course of 2022. Roundtables were held in all units, at which members of the top two management levels evaluated the workforce according to the new specifications.

The company intends to provide additional training on both the values and leadership principles and the talent and succession planning process in 2023. Managers and employees are supported with a blended learning approach consisting of e-learning, training courses and case studies to facilitate knowledge sharing. In the future, annual follow-ups involving the People Review Process (PRP) and roundtables will check that both topics are achieving the intended impact.

The general rules for working at Vossloh are summarized in a Code of Conduct that each and every employee is required to sign upon joining the company. The principles of conduct set out in the Code of Conduct form a binding yardstick and benchmark for the day-to-day activities of all employees (see the “Compliance” section on page 98 et seq.).

Employee development and training

One of Vossloh's major advantages in terms of its attractiveness as an employer is the comprehensive array of development measures it offers its employees. The company specifically promotes talent by striving to offer attractive opportunities, including offering all junior staff the possibility of working in digital project-based international roles. In annual review meetings, various measures are agreed upon to provide employees with customized training while taking operational needs into account. Proper implementation of these measures is closely monitored and evaluated by the HR departments. In addition, managers and employees sit down for six-monthly reviews to discuss the level of attainment for the agreed goals and development operations.

During the period under review, for the first time the People Review Process for managers and above-tariff paid employees not only included individual goals and development measures, i.e. WHAT, but also HOW these measures and goals can be achieved in line with the company values and leadership guidelines. 90.5 percent of all managers and nontariff employees (previous year: 80.7 percent) went through this process during the year.

The large number of professional development measures for Vossloh employees covering all areas of expertise comprises external and internal training, workshops, project involvement (within or outside of a business unit) and coaching as well as increasingly digital learning opportunities. At the Vossloh Fastening Systems „Factory of the Future" in Werdohl, the training program for employees who have not received training yet and for new employees was continued in the year under review. There was a strong focus on training in online and blended learning formats in 2022, as in the previous year. A total of 2,143 employees took part in 8,305 events – 8.5 percent more than the previous year.

Vossloh also supports employees gaining qualifications on their own initiative, such as by studying alongside working. For example, Vossloh Fastening Systems grants employees in China undergoing further training an additional day off before exams or other events, so they are better prepared. In addition, there is a cross-division LEAD! Program, which prepares high-potential employees for more advanced duties. The program was revised and aligned with the newly developed values and leadership principles in the previous year.

The Vossloh Learning Platform (VLP) is a digital environment for continuous learning ("Learn"), sharing ("Share"), and growth ("Grow") in the company. The platform creates an inspiring and motivating culture of learning that every employee can contribute to and benefit from. The VLP is an example that learning takes place every day and in numerous ways. Learning options are divided into on-site, tailor-made and digital learning, so a suitable solution can be found quickly depending on the learning need. The VLP is available to all employees worldwide in German, English and French.

Supportive and motivating working environment

Aging societies in developed countries, a shortage of skilled workers in many parts of the world, increasingly digitalized workplaces, global competition for well-qualified engineers and the younger generation's expectations of employers – these are just some of the challenges faced by Vossloh in the area of human resources. The company, therefore, attaches great importance to providing its employees with a positive work environment. Being a green company in a crisis-proof industry is a vital component of our employer branding activities.

Modern IT facilities, fresh fruit, free mineral water, surprise gifts on special occasions, i.e. Christmas, Easter – and Thanksgiving (U.S. only), sports groups and team building are all clear incentives for employees at Vossloh.

Vossloh practices a life phase-oriented HR policy. The issue of work-life balance is discussed between employee representatives and management in a constructive manner. The German Vossloh companies have all successfully passed the „Work and Family" audit.

In March 2022, a social pact was introduced to improve the work-life balance at all of the French companies in the Vossloh Group. The guidelines include a ban on sending emails or making phone calls outside regular working hours. Employees with care responsibilities have also been granted certain privileges. Special rules about working from home have been put in place at all locations in order to improve the work-life balance of our employees. Part-time working models and additional schemes have been set up for parents to help them balance their professional and personal obligations. All corresponding regulations are required to comply with the legal requirements of the respective countries.

Topics that further strengthen Vossloh's sustainability approach are also incorporated into the company's bonus system. The continuous improvement process (CIP) in place in some business units was transformed into the Group-wide Fit 4 Future ideas program in 2021 in close cooperation with employee representatives and the Executive Board. All employees can submit ideas via an app available in several languages and support their implementation across all business units. The express aim is to reduce the use of materials and energy as well as manpower and time in all areas of the company, thereby cutting costs. The best projects resulting from the submitted proposals are entered in an annual competition. Three projects selected by a jury each receive the Eduard Vossloh Award. The finalists present their ideas at the annual Leaders' Lounge meeting, with attendees deciding on the order of the winners. In 2022, projects from Luxembourg, Germany and Australia were selected as finalists.

During the year under review, employees or teams from all business units submitted almost 1000 ideas (previous year: over 650 ideas), of which just under 300 were implemented in 2022. Twelve proposals were nominated for the prize named after the company's founder – consisting of a cash sum as well as training and team building opportunities. A team from Vossloh Switch Systems in Rumelange, Luxembourg received the €15,000 first prize.

Vossloh Group companies assess employee satisfaction by means of regular surveys regarding various focal issues. Improvements and changes are identified on the basis of these surveys. In 2022, employee surveys were conducted at the Chinese sites (on working conditions in each case; a number of suggestions were implemented directly) and Polish sites (with a focus on online training, the quality of which was assessed as good) of the Vossloh Fastening Systems business unit along with a number of other sites. Vossloh was again awarded the „Training Company 2022" seal of quality based on the positive assessments of its apprentices in Germany. In the Customized Modules division, Vossloh Nordic Switch Systems is a pioneer in terms of employee surveys and conducts regular surveys on motivation levels and other issues. The same procedure is due to be adopted by the other units of the division in 2023. Vossloh Rail Services goes one step further when it comes to employee satisfaction: satisfied employees who recruit skilled workers to join Vossloh receive a bonus.

Equality and inclusion

As a matter of principle, Vossloh promotes equal opportunities for men and women. The Diversity, Equality and Inclusion Policy, which was revised in 2021, provides the Group-wide framework for various initiatives in this area, i.e. in raising awareness among managers, selecting employees for high-potential programs, filling vacant positions or as part of the life-phase-oriented HR policy. In the Customized Modules division, the "All on track" initiative launched in 2019 is having an impact despite some temporary constraints imposed by the COVID-19 pandemic. The initiative was given a boost by the fact that, in France, companies with more than 50 employees are obliged to publish annual figures relating to professional equality between men and women. In the corresponding Penicaud index, Vossloh Cogifer SA, the management company of the Customized Modules division, scored 87 out of a possible 100 points in 2022. Vossloh Cogifer is also a partner of the French organization Elles bougent, which encourages women to study STEM degrees and pursue a career in this field. In Germany, the Rail Services business unit is a corporate sponsor of proTechnicale e.V., an association that specifically promotes young women working in technology.

Diversity

As a globally acting Group, Vossloh actively promotes diversity within its workforce. The company went a step further in 2022 by appointing diversity officers for each business unit as part of the Group-wide sustainability initiative. In addition to acting as a point of contact, they are also responsible for initiating or implementing sustainability-related projects in their respective business units. The first round of ideas and examples of best practice were discussed at the diversity officer kick-off meeting.

In 2022, Vossloh employed men and women from over 44 countries with a wide range of qualification levels, education levels, vocational training paths, career experience and service years within all of its hierarchical levels. The French Vossloh sites participate in the nationwide TREMPLIN initiative (translated: springboard; abbreviation for TRansport EMPLoi INnovation). It aims to reduce the shortage of skilled workers in the transport and logistics industry by encouraging and promoting applications from people with disabilities. Vossloh Rail Services offers internships and apprenticeships for socially disadvantaged young people as part of the NachwuchsCampus traineeship initiative. The trainees in this business unit also include several refugees.

The following table shows some key HR indicators, which should be viewed in the context of Vossloh's status as a global industrial manufacturing Group:

Vossloh Group workforce structure[1] (as of 12/31)	2022	2021
Proportion of women in total workforce as a %	**15.2**	**14.9**
Age structure of employees as a %		
< 31 years	16.1	16.5
31–50 years	54.0	53.3
> 50 years	29.9	30.2
Length of service of employees as a %		
0–10 years	60.8	59.2
11–20 years	21.0	22.2
> 20 years	18.2	18.6
Employees by region as a %		
Germany	20.7	22.1
France	19.6	21.1
Rest of Europe	32.5	30.9
Asia	13.2	14.0
America	7.7	6.6
Australia	6.3	5.3

[1] Number of employees based on actual headcount.

Good corporate citizenship

Vossloh prides itself on its status as a "good citizen". As such, the company is involved in social and charitable initiatives in the communities where a site is established.

In terms of „Good Corporate Citizenship", Vossloh's materiality analysis identified the issue of corporate volunteering as relevant to Vossloh in connection with sustainability: The Group aimed to establish a Group-wide corporate volunteering program over the course of 2022.

Corporate volunteering

Social topics at Vossloh have so far been the responsibility of the various operational units; accordingly, there has been no Group-wide concept so far. In addition, the contributions made to the community by the individual corporate entities at the various sites were not systematically recorded. In a first step, the corporate volunteering program „Stronger Together – Responsible. Caring. Generous." was developed in 2022. The aim is to support Vossloh's vision and values by encouraging employees to take responsibility for their communities and social environment. Staff are granted up to one (paid) day off per year to spend volunteering.

In order to draw up a set of uniform guidelines across the Group, the diverse activities of Vossloh's units were compiled into an overview which was then analyzed by using models from other companies. The internationally renowned business school ESCP Berlin was brought on board as a professional partner to assist with drawing up and implementing the program. The program is due to be rolled out across the Group over the course of the year after a final review in spring 2023.

Individual Vossloh companies traditionally support civic society at their respective locations in a variety of ways. For example, associations, social and cultural institutions, and organizations that support disadvantaged people receive donations in cash and in kind. A number of Vossloh units release employees for voluntary work in the public interest, such as firefighting, sitting on local councils and charity work. The Lifecycle Solutions division uses funds that can be awarded to charitable organizations to promote increased participation in social, athletic, cultural or environmental areas by its employees. At the Australian subsidiary Austrak, employees have a paid absence day which they can use to work for a charity organization of their own choice.

Sustainable supply chains and operations

Sustainable business means looking beyond one's own factory gate. It concerns managing the environmental, social and economic impacts of products and services throughout their entire life cycle – from the procurement of raw materials, through processing and manufacturing processes, and the use of products and services, to their disposal or recycling.

Vossloh will pay even greater attention to these topics in the future. As part of its sustainability initiatives, the Group has voluntarily committed itself to responsible procurement. Vossloh AG's Executive Board is committed to meeting the highest possible environmental, social and governance standards in its procurement decisions and published the Responsible Sourcing Commitment (see „Investor Relations" > „Sustainability" > „Sustainable Supply Chains and Operations") on the company's website www.vossloh.com in December 2022.

The 2021 materiality analysis identified "Sustainable supply chains and operations" as one of seven key focus areas. The goal was set to expand sustainability in the supply chain and to increase the share of sustainably purchased strategic procurement volume to 90 percent by 2025. From 2023, as part of a responsible sourcing management system, sustainability criteria will be defined and implemented in procurement, a criteria-based risk assessment of suppliers will be conducted and suppliers will be bound by a Group-wide Code of Conduct.

Responsible procurement

The Vossloh Group developed and established a management system in the 2022 fiscal year to manage its sustainable purchasing processes. Relevant sustainability risks in existing supply chains were identified and assessed to determine their relevance for Vossloh in a comprehensive process in partnership with an independent auditing firm.

This responsible sourcing management system is designed to ensure that sustainability criteria are given significant consideration when selecting suppliers and managing our relationships with them. From 2023, Vossloh will require strategic suppliers to provide information on the measures and processes they have in place to ensure compliance with environmental, social and governance standards. Vossloh's purchasing departments will draw up sustainability profiles for suppliers on the basis of this self-disclosure and the corresponding evidence. Vossloh expects its suppliers to place a high priority on sustainability in their activities and to set up internal measures to ensure this. Suppliers are required to meet a minimum standard of sustainability in order to be selected by Vossloh.

Vossloh also works with suppliers to ensure the continuous improvement of environmental and social conditions, in particular labor standards and in relation to good governance. Existing and new strategic suppliers are required to accept the Vossloh Code of Conduct for Business Partners. The revised version of the Code of Conduct will be mandatory for strategic suppliers worldwide from 2023 onwards. It defines essential and binding rules related to sustainability for Vossloh business partners, which the company itself follows, namely ensuring compliance with applicable laws, observing globally applicable human and employee rights, prohibiting child and forced labor, enforcing health and safety standards, environmental protection, transparency in the supply chain, responsible procurement of minerals, the prohibition of corruption and bribery and compliance with competition laws.

One particular focus of the company's efforts in terms of sustainable procurement is a ban on the purchase of conflict minerals (3TG). The company published a statement to this effect on its website www.vossloh.com in 2022 (see „Investor Relations" > „Sustainability" > „Sustainable supply chains and operations"). Vossloh itself does not knowingly use any 3TG minerals (i.e. tin, tantalum, tungsten or gold) from conflict-affected and high-risk areas (CAHRAs) in the manufacture of its products or the provision of its services, the acquisition of which may directly or indirectly finance or otherwise facilitate armed conflicts. Ensuring that such raw materials are not sourced is part of Vossloh's supplier selection process and included in the Code of Conduct for Business Partners.

From 2023 onwards, compliance with the accepted obligations will be assessed as part of regular audits based on the identified risk profile in consideration of the country-specific risks for the supplying production site. If a business partner fails to meet expectations, Vossloh will generally work with them to improve the situation. Vossloh may terminate its business relationship with a supplier if it materially breaches its obligations under the Vossloh Code of Conduct for Business Partners or is repeatedly unwilling to take appropriate remedial action.

Employees, business partners and third parties can turn to the responsible internal departments at Vossloh or the compliance ombudspersons if they believe that the Code of Conduct for Business Partners may have been violated.

Business ethics and human rights

The nonfinancial aspects of corporate governance, compliance, particularly combating corruption and bribery, antitrust law and respect for human rights are outlined below. All of the above points have responsibility and risk minimization in common.

As a global enterprise with a 140-year history, Vossloh has a social responsibility toward its customers, employees, partners, investors and the public. From this responsibility, Vossloh derives the requirement that the company and its employees adhere to the laws as applicable, respect basic ethical values and act in an exemplary fashion at all times and in all scenarios. This requirement is set out in writing in the Vossloh Code of Conduct. The Code of Conduct, which all employees sign when they join the company, is designed to help them live up to this responsibility.

Good corporate governance

As a German stock corporation, Vossloh AG has a dual management and monitoring structure as reflected in the two bodies the Executive Board and the Supervisory Board. Both bodies have an obligation toward the company's well-being and the interests of the shareholders. The Annual General Meeting, as the third body, is responsible for the company's key fundamental decisions (see Corporate Governance Report on page 28 et seq.).

Compliance with legal and regulatory requirements

Preventing violations of the law of any kind, in particular corruption and anticompetitive behavior, is a key concern of the Vossloh Executive Board for the entire Group. The Executive Board has also unequivocally summed this up in its Compliance Commitment, which states: "Compliance with the law has absolute priority over closing a deal or achieving internal goals. We would rather forgo a business opportunity than violate the law.

We do not tolerate any violation of the law or of our internal guidelines and policies and will sanction any such behavior (zero tolerance policy)." (see www.vossloh.com > "Investor Relations" > "Corporate Governance" > "Compliance"). The area of Compliance is overseen within the Executive Board by the Chief Executive Officer (CEO).

The Executive Board of the Vossloh Group has established a Compliance Management System. The Vossloh Group's Rules of Procedure of the Compliance Organization govern the Compliance Organization, the assignment of responsibilities among officeholders and the reporting duties of all the different company levels. The Compliance Organization comprises the Chief Compliance Officer (supported by a Compliance Office), the Group Compliance Committee at Vossloh AG, compliance officers and compliance committees within the business units and local compliance officers within the operating companies.

The Compliance Management System is designed to identify compliance violation risks and to minimize them in order to prevent Vossloh and its employees from incurring damage and liability risks. Bribery in business transactions and breaches of competition law were identified as key compliance risks in a risk inventory conducted with external support in 2016 and last updated in 2021. This relates in particular to sales and all the sales-promoting activities, including intermediaries. The Compliance Management System addresses these risks and minimizes them with the help of suitable processes and measures.

Since 2007, Vossloh's Compliance Management System has been based on the Vossloh Code of Conduct. The Code stipulates and precisely defines the values of integrity and upstanding business conduct, and interprets them as clear and straightforward rules and principles. It is currently available in 15 languages and is mandatory for all company employees. It was most recently completely revised and further developed in 2016. There are also guidelines on the prevention of corruption, antitrust law-compliant conduct and the introduction of intermediaries as well as data protection, export control and insider guidelines (for more information on Compliance at Vossloh, see: www.vossloh.com > "Investor Relations" > "Corporate Governance" > "Compliance").

Compliance as part of business activities constitutes part of regular classroom training held at all Vossloh companies. The teaching requirements and the participants are identified and selected by the Compliance Officers within the business units and the Local Compliance Officers on the basis of the Vossloh Compliance Training Concept. The Compliance Office headed by the Chief Compliance Officer keeps a record of the classroom training sessions held. In 2022, Vossloh conducted compliance training around the world for a total of 1,283 participants (2021: 723).

Compliance training is also given in the form of e-Learning, which was revised from the ground up in 2021. The "Code of Conduct – Compliance Basics" module is aimed at all employees who work at a computer workstation. In addition, there are two modules for all managerial staff and employees with external contact that focus on competition law and anticorruption measures. These are also the target audience of the " refresher" module on anticorruption, competition law and foreign trade law. All new employees are gradually taken through the e-Learning program. The Local Compliance Officers systematically record the employees' attendance and send them reminders to attend, if need be. As of December 31, 2022, the training rate stood at 96.3 percent (2021: 95.0 percent)

Compliance audits are performed – usually with the assistance of external audit firms – in order to verify that the Compliance Management System rules are being adhered to within the individual operating units. These audits are carried out on both an ad hoc and scheduled basis. In 2022, three ad hoc compliance audits were carried out, of which one audit started in 2022 was only completed in 2023. Further, compliance issues were also audited as part of the internal audit process. Additionally, the company regularly has its Compliance Management System reviewed by external experts and has them make recommendations regarding its further development and improvement.

The most recent extensive review took place in 2017; the audit report has been published on www.vossloh.com under "Corporate Governance" > "Compliance" in the "Investor Relations" section. Insofar as findings and recommendations were stated regarding compliance work, these have been and will be implemented in the course of the ongoing development and improvement of the Compliance Management System. Vossloh also performed a stocktaking and survey of managers and employees of the Group in 2018 which confirmed the effectiveness of the established Compliance Management System in particular. In the fiscal year 2021, another Group-wide compliance risk assessment was carried out with the support of an auditing firm. The purpose of this risk assessment was to determine the Vossloh Group's compliance risks in the areas of antitrust law, anti-corruption, and export control, taking into account existing compliance rules and measures (see „Legal risks and opportunities" on page 70). The appropriateness of the existing Compliance Management System was further validated overall. The Compliance Office and Corporate Controlling conduct annual risk dialogues withselected companies of the Vossloh Group in order to monitor the effectiveness of the Compliance Management System and document material risks; two risk dialogues were held in 2022.

Vossloh has set up a whistle-blower hotline together with an international law firm. In addition to the option of contacting the Compliance Office directly, this allows company employees and external whistle-blowers to report possible misconduct to an independent external contact (ombudsperson) in their native language. The whistleblower hotline has so far been set up for 24 countries. As such, the main regions and the languages spoken within the Vossloh Group are essentially covered. The ombudspersons were contacted on two occasions in 2022 (2021: three occasions). All resulting investigations into possible compliance violations were concluded.

Vossloh has also taken special precautions to ensure compliance with foreign trade regulations, notably export control and embargo legislation. Beyond the obvious need to comply with applicable legal provisions, Vossloh shares the security objectives pursued by foreign trade legislation, especially the strengthening of international peace efforts and the non-proliferation of weapons of mass destruction. An export control policy for the entire Group and which is based on applicable law creates a binding framework for the entire Vossloh Group and all its employees to ensure compliance with the respective legal requirements. The framework requirements of this policy are supplemented by more extensive regulations in the form of work and organizational instructions, process descriptions, etc. The policy states that each operational unit must appoint an Export Officer and a Trade Compliance Officer (TCO). In cooperation with the respective HR departments, they develop training concepts and ensure that all employees working in areas relevant to foreign trade receive the appropriate training. Vossloh's central compliance e-learning tool also includes the module "Foreign trade law."

The Vossloh Group also expects its suppliers and service providers to act in accordance with the rules and demonstrate lawful conduct. This is verified and controlled in specific cases as well as on an ad hoc basis. Group-wide "Guidelines on the Involvement of Intermediaries" apply to business dealings with commercial agents, agencies, distributors and consultants in the sales area. Their purpose is to prevent the risk of unfair practices on the part of contracted third parties and to minimize the risks for the company and its employees.

Vossloh has maintained a Group-wide register of associations as part of its Compliance Management System, in which all company and private memberships in industry associations are recorded. Vossloh AG's primary association memberships are as follows:
- The Railway Industry in Germany (VDB)
- Association of the European Rail Industry (UNIFE)
- Deutsches Verkehrsforum (DVF)
- Institut für Bahntechnik GmbH (IfB)
- Pro-Rail Alliance
- Association of German Transport Companies (VDV)

Vossloh does not make donations to political parties or similar institutions.

Respect for human and labor rights

Vossloh respects internationally recognized human rights in its business activities, and these are codified as binding rules for all the employees in Section 10 of the Vossloh Code of Conduct ("Protection of human and labor rights"). The Code of Conduct can be found under www.vossloh.com > „Investor Relations" > „Corporate Governance" > „Compliance". Risks that may result from the violation of human rights are recorded under "Nonfinancial risks and opportunities" on page 70.

To minimize the risk of child labor, Vossloh, as a rule, does not employ anyone under the age of 14 or 15 (depending on the legal provisions in the different countries). In addition, the majority of Vossloh's production facilities are located in Europe. Employees under the age of 18 are usually apprentices. The instructors responsible for them are duty-bound to observe all the relevant labor law and occupational safety rules and provisions. A whistle-blower hotline is available in order for possible misconduct to be reported. No human rights violations were reported in the 2022 fiscal year (2021: also no reports).

More recent major partnership contracts such as joint venture agreements generally already include the Vossloh Code of Conduct and, therefore, also its human rights aspects as mandatory conduct rules. The same applies to contracts with intermediaries (e.g. commercial agents and distributors).

The various Vossloh companies subject their suppliers and intermediaries to intensive preliminary checks before concluding a contract with them. Here the company has so far not had cause to check compliance with human rights.

Adherence to local laws and standards (for example, minimum wage or fundamental labor law conditions) is an integral part of Vossloh's compliance obligations. The European Works Council, the Group Works Council, the Executive Board and Corporate Human Resources regularly communicate at Vossloh in order to guarantee the flow of information, discuss scope for improvements, address new issues together and tackle these in projects.

Data protection and privacy

The protection of personal data is a matter of importance to Vossloh. The company revised its data protection management system to comply with the European General Data Protection Regulation (GDPR) and adjusted the organization in accordance with the new legal requirements. It is binding for all Vossloh companies and all staff worldwide, even outside the European Union. Compliance with the Vossloh Data Protection Policy is monitored by appointed data protection officers and data protection coordinators, as well as a data protection committee at the Vossloh AG level that meets regularly.

UN Global Compact and implementing its ten principles

Vossloh is an active participant of the United Nations (UN) Global Compact. By supporting the principles of the UN Global Compact, the company is highlighting its contribution to achieving the global Sustainable Development Goals (SDGs) by 2030. The Group focuses its commitment on the six of the total 17 SDGs:

- SDG 5: Achieve gender equality and empower all women and girls
- SDG 6: Ensure availability and sustainable management of water and sanitation for all
- SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- SDG 12: Ensure sustainable consumption and production patterns
- SDG 13: Take urgent action to combat climate change and its impacts

The following table provides an overview of voluntary commitments, mission statements and management systems that help the company integrate the principles of the UN Global Compact into its business processes:

Principle	Vossloh's statements, guidelines and management systems	Section of the nonfinancial Group statement
	Human rights	
1. Companies should ensure that international human rights are supported and protected. 2. Companies should ensure that they are not complicit in human rights abuses.	- Vossloh Code of Conduct - Group-wide occupational safety policy - Group-wide travel safety management - Occupational health management at Vossloh companies - Group-wide privacy policy as per GDPR	- Values and leadership - Occupational health and safety - Respect for human and labor rights - Compliance with legal and regulatory requirements
	Labor standards	
3. Companies should respect the freedom of association and the effective recognition of the right to collective bargaining. 4. Companies should work to eliminate all forms of forced labor. 5. Companies should advocate the abolition of child labor. 6. Companies should advocate the elimination of discrimination in employment and at work.	- Vossloh Code of Conduct - Corporate Compliance Commitment - Group-wide compliance management system - Group-wide diversity, equality and inclusion policy - "All on Track" initiative in the Customized Modules division	- Values and leadership - Compliance with legal and regulatory requirements - Respect for human and labor rights - Equality and inclusion - Diversity
	Environmental protection	
7. Companies should follow the pre-cautionary principle when dealing with environmental problems. 8. Companies should take initiatives to promote greater environmental awareness. 9. Companies should accelerate the development and dissemination of environmental	- Vossloh Code of Conduct - Group-wide environmental management system - Waste and hazardous materials management at Vossloh companies - Quality management at Vossloh companies	- Environmental and climate action - Ecological design of products and services - Responsible procurement
	Preventing corruption	
10. Companies should work to avoid all forms of corruption, including extortion and bribery.	- Vossloh Code of Conduct - Corporate Compliance Commitment - Group-wide compliance management system - Group-wide embargo and export control policy - Group-wide policy on the use of intermediaries	- Values and leadership - Compliance with legal and regulatory requirements

EU taxonomy and its implementation at Vossloh

As part of the European Green Deal climate action initiative, the EU Commission aims to achieve the transition to a modern, resource-efficient and competitive economy and climate neutrality by 2050. A central component of this is the EU Taxonomy Regulation, a classification system for defining environmentally sustainable economic activities. The regulation, which went into effect July 12, 2020, defines six environmental objectives:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

So far, detailed criteria have only been defined for the first two environmental objectives. The remaining criteria for environmental objectives three to six are still being developed and are therefore likely to become relevant for reporting purposes in the coming years.

According to EU taxonomy guidelines, economic activities are "environmentally sustainable" if they
- make a substantial contribution to the achievement of one or more of the six environmental objectives referred to (substantial contribution),
- do no significant harm (DNSH) to the achievement of the five other EU environmental objectives, and
- comply with minimum regulations for occupational health and safety and human rights (minimum safeguards).

Technical screening criteria are used to determine whether an economic activity meets the first two points. These are currently only available for the first two EU environmental objectives. As a result, these two objectives alone need to be disclosed for the 2022 fiscal year.

The regulations differentiate between "taxonomy-eligible" and "taxonomy-aligned" activities. If activities can be assigned to the taxonomy criteria, they are taxonomy-eligible, regardless of whether the technical screening criteria are met. Activities are taxonomy-aligned if the taxonomy-eligible activities also meet the criteria.

In accordance with the EU Taxonomy Regulation, Vossloh reported on the share of sales revenues, capital expenditures (CapEx) and operating expenses (OpEx) of taxonomy-eligible and non-taxonomy-eligible economic activities, respectively.

The report for the 2022 fiscal year was prepared in accordance with the Taxonomy Regulation as amended on June 18, 2020 and the technical screening criteria of the Delegated Act to the Taxonomy Regulation of June 4, 2021. The wording used therein is still open to interpretation. Vossloh's interpretation is laid out below.

In 2021, Vossloh's business activities were initially assigned to the relevant taxonomy criteria in predefined sorting. Interviews and workshops were then held with relevant contacts and experts from the business units and key Group companies. The aim of these talks was to analyze business activities and to check whether the corresponding taxonomy criteria for the business activities have actually been met (alignment test).

The analysis of all activities of the Core Components, Customized Modules, and Lifecycle Solutions divisions revealed that all of Vossloh's business activities can be assigned to the category "rail infrastructure" (Section 6.14. of the Delegated Act on the Taxonomy Regulation of June 4, 2021). According to the regulation, this category includes, among others, the construction, modernization, operation and maintenance of railroad lines. The lion's share of Vossloh's business involves the manufacture and supply of major rail infrastructure components and systems. In addition, Vossloh offers comprehensive rail-related services, a major part of which involves the maintenance of rails and switches. Vossloh is either directly involved in the construction, modernization or maintenance of railway infrastructure or supplies its products to customers who require them for the construction or maintenance of railway lines.

For economic activities to be classified as environmentally sustainable, they must meet the technical screening criteria for taxonomy-alignment. The taxonomy-aligned activities were analyzed and the taxonomy-aligned shares of sales revenues, CapEx and OpEx were determined to be as follows:

- Substantial contribution: the activities of each business unit were reviewed to assess compliance with the technical screening criteria
- Do no significant harm (DNSH): The DNSH criteria mainly relate to compliance with legal requirements or, in the case of the "Transition to a circular economy" objective, to key aspects of business activity. In this regard, an assessment of DNSH compliance at business unit level was appropriate, and performed regularly.
- Minimum safeguards: A Group-wide approach was adopted to ensure compliance with the minimum safeguards requirements, which enables these criteria to be tracked precisely and consistently.

Vossloh's business activities contribute to an accessible and efficient rail network which is a basic prerequisite for the environmentally desirable modal shift to rail (see the comments on page 86 of this annual report). No other mode of transport is more climate-friendly than rail. For the purposes of the Taxonomy Regulation, Vossloh's business activities as a whole are to be regarded as an "enabling activity for climate-friendly mobility". Vossloh's business activities can generally be assumed to make a substantial contribution to climate change mitigation if they meet the technical screening criteria set out in the rail infrastructure category. According to the Taxonomy Regulation, Vossloh's activities are presumed to make a significant contribution to climate change mitigation only if they are performed on electrified rail lines or on lines for which an electrification plan exists. This does not cover rail lines intended only for the transportation of fossil fuels.

The electrification of rail infrastructure is not Vossloh's responsibility, and, in some cases, the locations where the products are used are not known. In analyzing whether the criteria for electrification are actually met, Vossloh followed a three-stage process. Initially, the company assumed that all activities that took place on high-speed lines and in rail-bound urban traffic would make a significant contribution to climate change mitigation, as these lines are generally fully electrified. Secondly, Vossloh analyzed the key individual projects in terms of the electrification of the rail lines. Thirdly, the electrification rate of the relevant country was used for analyzing the remaining projects. The data come from publicly available research and information from official statistical authorities, rail companies and associations. In addition, all activities of the Core Components, Customized Modules and Lifecycle Solutions divisions globally were examined with regard to existing rail lines designed for the transport of fossil fuels. These activities do not meet the criteria to be considered taxonomy-aligned. It emerged that no Vossloh activities could be associated with rail lines of this kind.

In analyzing its activities, Vossloh has focused mainly on how its operations contribute to the “climate change mitigation” environmental objective. Activities with a significant contribution to the “climate change adaptation” environmental objective were not identified.

Next, activities classified as mitigating climate change were to be assessed to determine whether they led to a significant degradation of one or more of the above environmental objectives (DNSH criteria). With regard to the DNSH criteria for the EU environmental objective „climate change adaptation“, there is no evidence that the physical consequences of climate change significantly affect Vossloh‘s economic activities.

The criteria for the EU sustainable use and protection of water and marine resources environmental objective primarily refer to statutory and regulatory requirements with which Vossloh is obliged to comply. Many of Vossloh’s business activities do not require the use of water as a resource at all, such as the milling and grinding of rails and switches, welding services, logistics or assembly work. Otherwise, the resource is mainly used in Vossloh factories for the surface treatment of products, as a coolant in manufacturing processes and for the production of concrete ties. Contaminated wastewater is treated in the company‘s own wastewater treatment plants in such a way that it meets the discharge standards of the public water supply at a minimum (see also the comments on page 85).

With regard to the “transition to a circular economy” environmental goal, Vossloh products meet long durability and longevity requirements, as most components are designed for a particularly long service life and can be recycled and reused at the end of their useful life. In addition, the Lifecycle Solution division’s service portfolio extends the service life of rails and switches.

Vossloh also complies with the EU environmental goal of “preventing and reducing environmental pollution.” A large number of Vossloh products and services contribute to the reduction of track noise and vibrations (see also the “Track-related noise and vibrations” section on page 87).

Regarding the EU “Protect and restore biodiversity and ecosystems” environmental objective, environmental impact assessments (EIA) and comparable reviews are conducted by Vossloh where such a requirement exists. Vossloh is generally not subject to the EIA obligation when manufacturing products. Finally, by boosting track availability and enabling greater traffic through this land use, Vossloh is helping to minimize the land required for the construction of rail infrastructure, thereby contributing to the preservation of biodiversity.

Information on compliance with the minimum requirements regarding occupational safety and human rights can be found on pages 89 et seq. and 98 et seq. in this report.

Based on this approach and the above assumptions and estimates, the Vossloh Group's taxonomy-eligible and taxonomy-aligned sales revenues, CapEx, and OpEx are as follows:

	2022			2021		
	Absolute (in € mill.)	Taxonomy-eligible (in € million / as a %)	Taxonomy-aligned (in € million / as a %)	Absolute (in € mill.)	Taxonomy-eligible (in € million / as a %)	Taxonomy-aligned (in € million / as a %)
Sales revenues	1,046.1	1,046.1 / 100	672.3 / 64	942.8	942.8 / 100	584.5 / 62
CapEx	58.2	45.6 / 78	31.2 / 54	66.2	57.6 / 87	39.6 / 60
OpEx	50.1	48.1 / 96	32.8 / 65	45.2	43.4 / 96	29.1 / 64

The sales revenues allocated to taxonomy-aligned business activities exceeded the value of the previous year by 15.0 percent. This increase can primarily be attributed to the Core Components division. The other two divisions, Customized Modules and Lifecycle Solutions, were also able to significantly increase their sales revenues. The share of taxonomy-aligned sales revenues saw a slight increase of 2 percentage points. This was mainly due to a higher share of sales revenues related to electrified railway lines.

Capital expenditure (CapEx) related to taxonomy-aligned activities was 21.2 percent below the previous year's figure. The share of taxonomy-aligned sales revenues decreased accordingly by 6 percentage points. The percentage decrease was mainly driven by higher capital expenditure for a Group-wide uniform ERP system, which by definition is not taxonomy-eligible. As a result, in accordance with the criteria of the regulation, environmentally sustainable capital expenditure now makes up a lower overall share of total capital expenditure.

Operating expenditure (OpEx) related to taxonomy-aligned activities increased by 12.7 percent year on year. The share of taxonomy-aligned operating expenditure increased by one percentage point. The upturn is largely due to higher maintenance and repair expenses.

Further information on sales revenues, CapEx and OpEx

Sales revenues are defined as net sales revenues in accordance with IFRS as reported in the income statement and therefore relate only to fully consolidated subsidiaries. The share of environmentally sustainable sales revenues is calculated by dividing the taxonomy-aligned net sales revenues by the total Group sales revenues. Further information on sales revenues can be found on page 131 et seq. of the annual report.

Breakdown of the sales revenues numerator

€ mill.	2022	2021
Sales revenues from contracts with customers	672.3	584.5
Total	**672.3**	**584.5**

CapEx comprises capital expenditure in non-current intangible or tangible assets, including those acquired through asset or share deals, as shown in the consolidated balance sheet. Capital expenditure (CapEx) is calculated on a gross basis, i.e. without taking into account revaluations, depreciation, amortization or impairments. For further information on CapEx, please refer to page 141 et seq. of the annual report.

The numerator used to determine the taxonomy-aligned CapEx is calculated as follows:

Breakdown of the CapEx numerator

€ mill.	2022	2021
Additions to property, plant and equipment	1.6	1.4
Additions to intangible assets	24.4	22.6
Additions to investment properties	0.0	1.4
Additions to rights of use	5.2	3.7
Additions to assets acquired in business combinations	0.0	10.5
Total	**31.2**	**39.6**

Operating expenses (OpEx) take into account non-capitalizable expenses recognized in the income statement such as research and development, building renovation measures, short-term leasing, maintenance and repair and all other direct expenses from the maintenance of property, plant and equipment to ensure that the taxonomy-eligible assets are ready for operation.

The numerator used to determine the taxonomy-aligned OpEx is calculated as follows:

Breakdown of the OpEx numerator

€ mill.	2022	2021
Research and development	6.1	6.1
Maintenance and repair expenses	23.9	20.7
Lease expenses	2.0	1.7
Training expenses	0.8	0.6
Total	**32.8**	**29.1**

EU taxonomy indicators according to Annex II to the Commission Delegated Regulation

Sales revenues

Economic activities	Code(s)	Absolute sales revenues	Proportion of sales revenues	Substantial contribution to climate protection	DNSH criteria („do no significant harm") Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	
		in € mill.	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	
A. Taxonomy-eligible activities										
A.1. Environmentally sustainable activities (taxonomy-aligned)										
6.14. Infrastructure for rail transport	6.14	672.3	64	64	J	J	J	J	J	
Sales revenues of environmentally sustainable activities (taxonomy-aligned) (A.1)		672.3	64	64						
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)										
6.14. Infrastructure for rail transport	6.14	373.8	36							
Sales revenues of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		373.8	36							
Total (A.1 + A.2)		1.046.1	100							
B. Taxonomy-non-eligible activities										
Sales revenues of taxonomy-non-eligible activities (B)		0.0	0							
Total (A + B)		1.046.1	100							

	Minimum safeguards	Taxonomy-aligned proportion of sales revenues 2022	Taxonomy-aligned proportion of sales revenues 2021	Category (enabling activity)	Category (transitional activity)
	Y/N	%	%	E	T
	J	64	62	E	/
		64	62		
		64	62		

CapEx

Economic activities	Code(s)	Absolute CapEx	Proportion of CapEx	Substantial contribution to climate protection	DNSH criteria („do no significant harm") Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	
		in € mill.	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	
A. Taxonomy-eligible activities										
A.1. Environmentally sustainable activities (taxonomy-aligned)										
6.14. Infrastructure for rail transport	6.14	31.2	54	54	J	J	J	J	J	
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		31.2	54	54						
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)										
6.14. Infrastructure for rail transport	6.14	14.4	24							
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		14.4	24							
Total (A.1 + A.2)		45.6	78							
B. Taxonomy-non-eligible activities										
CapEx of taxonomy-non-eligible activities (B)		12.6	22							
Total (A + B)		58.2	100							

	Minimum safeguards	Taxonomy-aligned proportion of CapEx 2022	Taxonomy-aligned proportion of CapEx 2021	Category (enabling activity)	Category (transitional activity)
	Y/N	%	%	E	T
	J	54	60	E	/
		54	60		
		54	60		

OpEx

Economic activities	Code(s)	Absoluter OpEx	Anteil OpEx	Substantial contribution to climate protection	DNSH criteria („do no significant harm") Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems
		in € mill.	%	%	Y/N	Y/N	Y/N	Y/N	Y/N
A. Taxonomy-eligible activities									
A.1. Environmentally sustainable activities (taxonomy-aligned)									
6.14. Infrastructure for rail transport	6.14	32.8	65	65	J	J	J	J	J
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		32.8	65	65					
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities)									
6.14. Infrastructure for rail transport	6.14	15.3	31						
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned activities) (A.2)		15.3	31						
Total (A.1 + A.2)		48.1	96						
B. Taxonomy-non-eligible activities									
OpEx of taxonomy-non-eligible activities (B)		2.0	4						
Gesamt (A + B)		50.1	100						

	Minimum safeguards	Taxonomy-aligned proportion of OpEx 2022	Taxonomy-aligned proportion of OpEx 2021	Category (enabling activity)	Category (transitional activity)
	Y/N	%	%	E	T
	J	65	64	E	/
		65	64		
		65	64		

Limited Assurance Report of the Independent Practitioner Regarding the Nonfinancial Statement

To Vossloh AG, Werdohl/Germany

Our Engagement

We have performed a limited assurance engagement on the consolidated nonfinancial statement, which is included in the combined management report for the parent and the group, of Vossloh AG, Werdohl/Germany, (hereafter referred to as "the Company") for the financial year from 1 January to 31 December 2022 (hereafter referred to as "nonfinancial statement").

Our assurance engagement does not cover the external sources of documentation or expert opinions stated in the nonfinancial statement.

Responsibilities of the Executive Directors

The executive directors of Vossloh AG are responsible for the preparation of the nonfinancial statement in accordance with Section 315c in conjunction with Sections 289c to 289e German Commercial Code (HGB) and Article 8 of Regulation (EU) 2020/852 of the European Parliament and the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereafter referred to as "EU Taxonomy Regulation") and the delegated acts adopted thereon, as well as with the executive directors' interpretation of the wording and terminology contained in the EU Taxonomy Regulation and the delegated acts adopted thereon, as is presented in section "EU Taxonomy reporting for meeting the requirements of Regulation (EU) 2020/852" of the nonfinancial statement.

These responsibilities of the executive directors of the Company include the selection and application of appropriate methods regarding the nonfinancial statement and the use of assumptions and estimates for individual nonfinancial disclosures of the Group which are reasonable under the given circumstances. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of a nonfinancial statement that is free from material misstatement due to fraudulent behaviour (manipulation of the nonfinancial statement) or error.

Some of the wording and terminology contained in the EU Taxonomy Regulation and the delegated acts adopted thereon are still subject to considerable interpretation uncertainty and have not yet been officially clarified. Therefore, the executive directors have laid down their own interpretation of the EU Taxonomy Regulation and of the delegated acts adopted thereon in section "EU Taxonomy reporting for meeting the requirements of Regulation (EU) 2020/852" of the nonfinancial statement. They are responsible for the reasonableness of this interpretation. As there is the inherent risk that indefinite legal concepts may allow for various interpretations, the legal conformity of the interpretation is prone to uncertainty.

The preciseness and completeness of the environmental data in the nonfinancial statement is subject to inherent restrictions resulting from the manner in which the data was collected and calculated as well as from assumptions made.

Independence and Quality Assurance of the Audit Firm

We have complied with the German professional requirements on independence and other professional rules of conduct.

Our firm applies the national statutory rules and professional announcements – particularly of the "Professional Charter for German Public Auditors and German Sworn Auditors" (BS WP/vBP) and of the IDW Quality Assurance Standard "Quality Assurance Requirements in Audit Practices" (IDW QS 1) promulgated by the Institut der Wirtschaftsprüfer (IDW) and does therefore maintain a comprehensive quality assurance system comprising documented regulations and measures in respect of compliance with professional rules of conduct, professional standards, as well as relevant statutory and other legal requirements.

Responsibilities of the Practitioner

Our responsibility is to express a conclusion on the nonfinancial statement based on our work performed within our limited assurance engagement.

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", adopted by the IAASB. This Standard requires that we plan and perform the assurance engagement so that we can conclude with limited assurance whether matters have come to our attention to cause us to believe that the nonfinancial statement of the Company, with the exception of the external sources of documentation or expert opinions stated therein, has not been prepared, in all material respects, in accordance with Section 315c in conjunction with Sections 289c to 289e HGB and the EU Taxonomy Regulation and the delegated acts adopted thereon, as well as with the executive directors' interpretation presented in section "EU Taxonomy reporting for meeting the requirements of Regulation (EU) 2020/852" of the nonfinancial statement.

The procedures performed in a limited assurance engagement are less in extent than in a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. The choice of assurance work is subject to the practitioner's professional judgment.

Within the scope of our limited assurance engagement, which we performed between January and March 2023, we notably performed the following work and other activities:

- Obtaining an understanding of the structure of the Group's sustainability organisation and of the stakeholder engagement
- Inquiries of the executive directors and relevant employees involved in the preparation of the consolidated nonfinancial statement about the process of preparation, about the system of internal control relating to this process, as well as about the disclosures contained in the nonfinancial statement
- Identification of probable risks of material misstatements in the nonfinancial statement
- Analytical evaluation of selected disclosures contained in the nonfinancial statement
- Cross validation of selected disclosures and the corresponding data in the consolidated and annual financial statements as well as in the combined management report
- Evaluation of the presentation of the nonfinancial statement
- Evaluation of the process to identify taxonomy-eligible and taxonomy-aligned economic activities and the corresponding disclosures in the nonfinancial statement

The determination of the disclosures pursuant to Article 8 of the EU Taxonomy Regulation requires the executive directors to make interpretations of indefinite legal concepts. As there is the inherent risk that indefinite legal concepts may allow for various interpretations, the legal conformity of the interpretation, and hence our related examination, is prone to uncertainty.

Practitioner's Conclusion

Based on the work performed and the evidence obtained, nothing has come to our attention that causes us to believe that the consolidated nonfinancial statement of Vossloh AG for the financial year from 1 January to 31 December 2022 has not been prepared, in all material respects, in accordance with Section 315c in conjunction with Sections 289c to 289e HGB and the EU Taxonomy Regulation and the delegated acts adopted thereon, as well as with the executive directors' interpretation presented in section "EU Taxonomy reporting for meeting the requirements of Regulation (EU) 2020/852" in the nonfinancial statement.

We do not express a conclusion on the external sources of documentation and expert opinions stated in the nonfinancial statement.

Restriction of Use

We issue this report as stipulated in the engagement letter agreed with the Company (including the "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (German Public Auditors and Public Audit Firms)" as of 1 January 2017 promulgated by the Institut der Wirtschaftsprüfer (IDW)). We draw attention to the fact that the assurance engagement was performed for the purposes of the Company and the report is solely designed for informing the Company about the findings of the assurance engagement. Therefore, it may not be suitable for another than the aforementioned purpose. Hence, this report should not be used by third parties as a basis for any (asset) decision.

We are liable sole to the Company. However, we do not accept or assume liability to third parties. Our conclusion was not modified in this respect.

Düsseldorf/Germany, 7 March 2023

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed:	Signed:
Sebastian Dingel	Eike Bernhard Hellmann
Partner	Senior Manager

Consolidated financial statements of Vossloh AG as of December 31, 2022

Income statement

€ mill.	Notes	2022	2021
Sales revenues	(1)	1,046.1	942.8
Cost of sales	(2.1)	(809.3)	(724.8)
General administrative and selling expenses	(2.2)	(163.7)	(160.8)
Allowances and write-ups of financial assets		0.9	2.3
Research and development costs	(2.3)	(8.3)	(9.0)
Other operating income	(3.1)	20.9	18.7
Other operating expense	(3.2)	(11.3)	(7.8)
Operating result		**75.3**	**61.4**
Result from investments in companies accounted for using the equity method		4.6	4.5
Other financial income	(4.1)	0.3	6.4
Other financial expense	(4.2)	(2.1)	0.0
Earnings before interest and taxes (EBIT)		**78.1**	**72.3**
Interest income	(5.2)	7.5	5.2
Interest and similar expense	(5.1)	(18.1)	(12.7)
Earnings before taxes (EBT)		**67.5**	**64.8**
Income taxes	(6)	(12.5)	(28.6)
Result from continuing operations		**55.0**	**36.2**
Result from discontinued operations	(7)	1.0	(0.3)
Net income		**56.0**	**35.9**
thereof attributable to shareholders of Vossloh AG		**41.7**	**23.1**
thereof attributable to hybrid capital investors		6.0	5.1
thereof attributable to noncontrolling interests	(8)	8.3	7.7
Earnings per share			
Basic/diluted earnings per share (€)	(9)	2.38	1.31
thereof attributable to continuing operations		2.32	1.33
thereof attributable to discontinued operations		0.06	(0.02)

Statement of comprehensive income

€ mill.	Notes	2022	2021
Net income		**56.0**	**35.9**
Changes in fair value of hedging instruments (cash flow hedges)		4.3	(0.1)
Currency translation differences	(23)	0.0	12.7
Income taxes		(1.4)	0.1
Amounts that will potentially be transferred to profit or loss in future periods		**2.9**	**12.7**
Remeasurement of defined benefit plans	(24)	12.0	1.9
Income taxes	(16)	(3.1)	(0.7)
Amounts that will not be transferred to profit or loss in future periods		**8.9**	**1.2**
Income and expenses recognized directly in equity		**11.8**	**13.9**
Total comprehensive income		**67.8**	**49.8**
thereof attributable to shareholders of Vossloh AG		54.3	34.2
thereof attributable to hybrid capital investors		6.0	5.1
thereof attributable to noncontrolling interests		7.5	10.5

Cash flow statement

€ mill.	2022	2021
Cash flow from operating activities		
Earnings before interest and taxes (EBIT)	78.1	72.3
EBIT from discontinued operations	1.0	(0.3)
Amortization/depreciation/impairment losses/reversal of impairment losses of noncurrent assets	53.1	51.6
Change in noncurrent provisions	(1.7)	1.5
Gross cash flow	**130.5**	**125.1**
Noncash change in investments in companies accounted for using the equity method	(4.6)	(11.3)
Other noncash income/expenses, net	(4.1)	(2.5)
Gains/losses from the disposal of noncurrent assets	0.0	(1.2)
Income taxes paid	(23.4)	(23.0)
Change in working capital	(21.4)	(1.9)
Changes in other assets/liabilities, net	(5.4)	(3.9)
Cash flow from operating activities	**71.6**	**81.3**
Cash flow from investing activities		
Investments in intangible assets and property, plant and equipment	(44.9)	(51.7)
Cash-effective dividends from companies accounted for using the equity method	1.2	1.0
Free cash flow	**27.9**	**30.6**
Investments in noncurrent financial instruments	(0.4)	0.0
Proceeds from the disposal of intangible assets and property, plant and equipment	0.6	3.1
Disbursements/proceeds from the purchase/sale of short-term securities	(1.4)	(0.2)
Proceeds from disposals of noncurrent financial instruments	0.0	0.2
Proceeds from the disposal of consolidated companies	–	(0.8)
Payments for the acquisition of consolidated companies	–	(9.5)
Cash flow from investing activities	**(44.9)**	**(57.9)**
Cash flow from financing activities		
Disbursements to shareholders and noncontrolling interests	(26.5)	(26.2)
Net cash inflow from hybrid capital	–	148.3
Payments to hybrid capital investors	(6.0)	–
Net financing from short-term loans	(20.4)	(146.9)
Net financing from medium-term and long-term loans	45.1	12.0
Repayments from leases	(12.4)	(11.3)
Interest received and proceeds from hedges of Group financing	7.6	5.2
Interest paid and similar expenses	(16.7)	(11.9)
Cash flow from financing activities	**(29.3)**	**(30.8)**
Net cash inflow/outflow	(2.6)	(7.4)
Change in cash and cash equivalents from the first-time consolidation of companies	1.5	2.3
Exchange rate effects	0.4	2.0
Opening cash and cash equivalents	**29.6**	**32.7**
Closing cash and cash equivalents	**28.9**	**29.6**

For more information on the cash flow statement, see page 137 et seq.

Balance sheet

Assets in € mill.	Notes	12/31/2022	12/31/2021
Intangible assets	(10)	345.0	343.2
Property, plant and equipment	(11)	326.4	323.8
Investment properties	(12)	1.3	7.4
Investments in companies accounted for using the equity method	(13)	49.4	47.6
Other noncurrent financial instruments	(14)	13.7	4.4
Other noncurrent assets	(15)	1.5	4.1
Deferred tax assets	(16)	17.1	12.3
Noncurrent assets		**754.4**	**742.8**
Inventories	(17)	236.5	195.0
Trade receivables	(18)	228.0	214.5
Contract assets	(18)	1.4	2.9
Income tax assets	(19)	8.9	7.0
Other current financial instruments	(20)	15.5	17.7
Other current assets	(20)	28.9	33.5
Short-term securities	(21)	2.3	1.0
Cash and cash equivalents	(22)	76.8	75.0
Current assets		**598.3**	**546.6**
Assets held for sale	(7)	16.1	–
Assets		**1,368.8**	**1,289.4**

Equity and liabilities in € mill.	Notes	12/31/2022	12/31/2021
Capital stock	(23.1)	49.9	49.9
Additional paid-in capital	(23.2)	190.4	190.4
Retained earnings and net income	(23.3)	199.0	172.0
Hybrid capital	(23.4)	148.3	148.3
Accumulated other comprehensive income	(23.5)	10.3	(1.3)
Equity excluding noncontrolling interests		**597.9**	**559.3**
Noncontrolling interests	(23.6)	27.2	28.6
Equity		**625.1**	**587.9**
Pension provisions/provisions for other post-employment benefits	(24)	21.9	34.5
Other noncurrent provisions	(25)	17.5	16.5
Noncurrent financial liabilities	(26.1)	267.4	222.4
Noncurrent trade payables	(26.2)	1.7	1.0
Other noncurrent liabilities	(26.4)	10.4	2.9
Deferred tax liabilities	(16)	9.4	12.2
Noncurrent liabilities		**328.3**	**289.5**
Other current provisions	(25)	52.7	56.3
Current financial liabilities	(26.1)	49.2	69.2
Current trade payables	(26.2)	167.3	149.2
Current income tax liabilities	(26.3)	9.8	6.8
Other current liabilities	(26.4)	126.6	130.5
Current liabilities		**405.6**	**412.0**
Liabilities related to assets held for sale	(7)	9.8	–
Equity and liabilities		**1,368.8**	**1,289.4**

Statement of changes in equity

€ mill.	Capital stock	Additional paid-in capital	Retained earnings and net income	Hybrid capital	Accumulated other comprehensive income: Reserves for currency translation	Accumulated other comprehensive income: Reserves for hedging transactions	Accumulated other comprehensive income: Reserves for the remeasurement of defined benefit plans	Equity excluding noncontrolling interests	Noncon-trolling interests	Total
As of 12/31/2020	**49.9**	**190.4**	**170.2**	**–**	**(13.6)**	**(0.6)**	**0.2**	**396.5**	**15.9**	**412.4**
Transfer to retained earnings			0.2				(0.2)	–		–
Issuance of hybrid capital				148.3				148.3		148.3
Change in the scope of consolidation			(2.4)		1.4			(1.0)	5.6	4.6
Others effects			(1.3)		0.1	0.3		(0.9)	0.9	0.0
Net income			23.1	5.1				28.2	7.7	35.9
Income and expenses recog-nized directly in equity after taxes					9.9	0.0	1.2	11.1	2.8	13.9
Dividend payments			(17.8)					(17.8)	(4.3)	(22.1)
Compensation to hybrid capital investors				(5.1)				(5.1)		(5.1)
As of 12/31/2021	**49.9**	**190.4**	**172.0**	**148.3**	**(2.2)**	**(0.3)**	**1.2**	**559.3**	**28.6**	**587.9**
Transfer to retained earnings			1.2				(1.2)	–		–
Change in the scope of consolidation			1.7		0.2			1.9		1.9
Net income			41.7	6.0				47.7	8.3	56.0
Income and expenses recog-nized directly in equity after taxes					0.9	2.9	8.8	12.6	(0.8)	11.8
Dividend payments			(17.6)					(17.6)	(8.9)	(26.5)
Compensation to hybrid capital investors				(6.0)				(6.0)		(6.0)
As of 12/31/2022	**49.9**	**190.4**	**199.0**	**148.3**	**(1.1)**	**2.6**	**8.8**	**597.9**	**27.2**	**625.1**

For more information about changes in equity components, see numbers (23.1) to (23.5) on page 151 et seq.

Notes to the consolidated financial statements of Vossloh AG as of December 31, 2022

Segment information by division and business unit

€ mill.		Vossloh Fastening Systems	Vossloh Tie Technologies	Consolidation
Value added	2022	18.5	(0.2)	(0.3)
	2021	23.3	(0.8)	(0.1)
Information from income statement/flow figures				
External sales revenues	2022	308.5	154.5	–
	2021	278.0	132.3	–
Internal sales revenues	2022	32.8	1.8	(15.5)
	2021	14.4	10.0	(5.6)
Depreciation/amortization	2022	10.2	12.2	–
	2021	8.9	15.4	–
Investments in noncurrent assets	2022	12.6	6.3	–
	2021	19.1	4.5	–
Result from investments in companies accounted for using the equity method	2022	0.9	–	–
	2021	1.0	–	–
Result from discontinued operations	2022	–	–	–
	2021	–	–	–
Other material noncash segment expenses	2022	8.3	0.0	–
	2021	3.2	1.8	–
Impairment losses	2022	2.2	0.0	–
	2021	0.0	0.0	–
Information from the balance sheet				
Total assets	2022	325.1	213.3	(9.9)
	2021	298.3	201.2	(2.2)
Liabilities	2022	184.9	55.2	(9.7)
	2021	159.2	54.8	(2.2)
Investments in companies accounted for using the equity method	2022	3.9	–	–
	2021	5.3	–	–
Annual average headcount[1]	2022	560	377	–
	2021	535	344	–

[1] The average number of employees is calculated on the basis of quarterly figures.

	Core Components	Customized Modules (Vossloh Switch Systems)	Lifecycle Solutions (Vossloh Rail Services)	Holding companies	Consolidation	Group
	18.0	**10.8**	**(2.9)**	6.7	(21.1)	**11.5**
	22.4	**8.3**	**(3.6)**	1.4	(19.0)	**9.5**
	463.0	**453.0**	**130.1**	0.0	–	**1,046.1**
	410.3	**417.0**	**110.8**	0.0	–	**938.1**
	19.1	**3.1**	**5.9**	0.0	(28.1)	**0.0**
	18.8	**1.7**	**4.7**	0.1	(20.6)	**4.7**
	22.4	**15.1**	**12.7**	0.7	–	**50.9**
	24.3	**13.7**	**12.3**	0.8	–	**51.1**
	18.9	**16.3**	**16.7**	7.1	(0.8)	**58.2**
	23.6	**14.2**	**11.4**	2.1	0.0	**51.3**
	0.9	**2.2**	**1.5**	–	–	**4.6**
	1.0	**2.5**	**1.0**	–	–	**4.5**
	–	**–**	**–**	1.0	–	**1.0**
	–	**–**	**–**	(0.3)	–	**(0.3)**
	8.3	**15.5**	**0.7**	(5.8)	(1.3)	**17.4**
	5.0	**17.2**	**3.5**	0.2	0.0	**25.9**
	2.2	**0.0**	**–**	9.5	(9.5)	**2.2**
	0.0	**0.0**	**–**	0.8	0.0	**0.8**
	528.5	**601.1**	**268.5**	1,213.6	(1,242.9)	**1,368.8**
	497.3	**570.4**	**265.8**	1,264.9	(1,309.0)	**1,289.4**
	230.4	**336.6**	**232.7**	412.3	(478.1)	**733.9**
	211.8	**320.8**	**245.5**	373.5	(450.1)	**701.5**
	3.9	**32.4**	**13.1**	–	–	**49.4**
	5.3	**30.7**	**11.6**	–	–	**47.6**
	937	**2,241**	**549**	67	–	**3,794**
	879	**2,150**	**520**	63	–	**3,612**

General principles

Vossloh AG is a listed company based in Werdohl, Germany. The company is registered under HRB 5292 in the commercial register of the Iserlohn Local Court, the place of business is Vosslohstraße 4, 58791 Werdohl, Germany. The development, manufacturing and sale of products, as well as the provision of services of all kinds in the field of rail technology, particularly in rail infrastructure, are the Vossloh Group's primary activities.

These consolidated financial statements were prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union (EU), and the supplementary regulations of Section 315e (1) of the German Commercial Code (HGB). All binding standards as of the balance sheet date have been considered.

On February 27, 2023, Vossloh AG's Executive Board released the consolidated financial statements for transmittal to the Supervisory Board's Audit Committee.

New accounting rules

The following standards and interpretations were issued by the International Accounting Standards Board (IASB) but were not yet binding for the 2022 fiscal year according to the EU's adoption regulations or were not yet adopted into European law. In the case of standards and interpretations that have not yet been adopted by the EU, the first-time application in accordance with the IASB is indicated. Early adoption of these standards is not planned.

New or amended standards	Issued	Applied for the first time in fiscal year	Endorsed by the EU	Key content and expected impact on the consolidated financial statements of Vossloh AG
IFRS 17: Insurance Contracts	May 2017	2023	2021	None
Initial application of IFRS 17 and IFRS 9 – comparative information (Amendment to IFRS 17)	December 2021	2023	2022	None
Lease liability in a sale and leaseback (Amendment to IFRS 16)	September 2022	2024	./.	No materials effects are expected.
Classification of liabilities as current or noncurrent including deferral of effective date and non-current liabilities with covenants (Amendments to IAS 1)	January resp. July 2020 and October 2022	2024	./.	Effects on the presentation as current or noncurrent with expiring financing agreements are possible, but depend on the individual case.
Disclosure of accounting policies (Amendments to IAS 1 and the IFRS Practice Statement 2)	February 2021	2023	2022	None
Definition of accounting estimates (Amendments to IAS 8)	February 2021	2023	2022	None
Deferred taxes related to assets and liabilities that result from a single transaction (Amendments to IAS 12)	May 2021	2023	2022	None

First-time application of standards and interpretations

In the 2022 fiscal year, the changes to standards and interpretations listed in the following table were applied for the first time:

Standard/Interpretation	Issued	Endorsed by the EU
Amendments to IAS 16 Property, Plant and Equipment	May 2020	July 2021
Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets	May 2020	July 2021
Amendments to IFRS 3 Business Combinations	May 2020	July 2021
Annual Improvements to IFRS Standards 2018–2020	May 2020	July 2021

The standards and interpretations which were applied for the first time had no significant impact on the consolidated financial statements.

Principles of preparation of the consolidated financial statements

The financial statements of all companies included in the consolidated financial statements are prepared as of Vossloh AG's closing date (December 31) in accordance with uniform accounting and measurement methods; the majority are audited or reviewed by independent statutory accountants.

The consolidated financial statements are prepared in Euro, the functional currency of Vossloh AG. Figures are mostly presented in millions of euros.

The income statement is structured according to the cost-of-sales method. The consolidated financial statements were prepared on a going concern basis.

While in the year under review the COVID-19 pandemic had less of an impact on our business than in previous years, rising energy costs and further price increases caused by the war in Ukraine had a clear impact on the used production factors. With regard to the further development, Vossloh sees the main influencing factor as the extent to which restrictions due to disrupted supply relationships or due to other influencing factors will have a positive or negative impact. In addition, the future development will depend on whether the continuing global shortages in the supply of various primary products and raw materials will worsen or ease off and on the further development of prices and interest rates. The Vossloh Group analyzes all the risks relevant to the business on an ongoing basis in order to be able to take any possibly required countermeasures at short notice.

The preparation of the consolidated financial statements requires management to make certain discretionary decisions, assumptions and estimates. These estimates involve a certain level of uncertainty. They affect the valuation of recognized assets, liabilities and contingent liabilities as of the balance sheet date, as well as the recognition of income and expenses in the reporting period. Due to the uncertainties, the actual values subsequently determined may differ from those estimates and hence from the amounts disclosed in the consolidated financial statements. The estimates and underlying assumptions are subject to ongoing review. Adjustments are made in the period of the change or in future periods, for example, in the case of changes to the useful lives of property, plant and equipment.

Estimation uncertainty with a significant impact on the consolidated financial statements is particularly prevalent when accounting for goodwill (see Note 10), recognizing deferred taxes (see Note 16) and recognizing and measuring other provisions (see Note 25).

Discretionary decisions with a significant impact on the consolidated financial statements are particularly common when determining the duration of leases in the event of extension or termination options (see "Information on leases").

The recognition and measurement principles applied in Vossloh AG's consolidated financial statements are detailed in the notes.

Consolidation

Vossloh's consolidated financial statements comprise the financial statements of Vossloh AG and in principle all of its subsidiaries. Subsidiaries, over which Vossloh AG generally exercises control due to directly or indirectly holding the majority of voting rights, are fully consolidated.

The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control is obtained until such control ceases to exist. The acquisition method is used for capital consolidation purposes. This involves offsetting the cost of the acquired shares against the Group's holding in the equity of the subsidiaries.

To determine the equity of the acquired subsidiaries on initial consolidation, all identifiable assets, liabilities and contingent liabilities of the acquired subsidiary are recognized at their respective fair value at the acquisition date. Any remaining positive differences between the purchase price and the market value of the acquired assets and liabilities are recognized as goodwill in accordance with IFRS 3 and are tested for impairment annually at the level of the relevant business unit. Negative goodwill is directly recognized in the income statement after the fair values of assets and liabilities have been reassessed.

At the acquisition date, noncontrolling interests are measured with the corresponding share in the identifiable net assets of the respective company acquired.

Changes to the Group's holdings in subsidiaries, which do not lead to an acquisition or loss of control over this subsidiary, are treated as equity transactions. Receivables and payables, and income and expenses, between consolidated Group companies are eliminated. Where write-downs have been recognized in the separate financial statements of consolidated subsidiaries on shares in consolidated subsidiaries or intragroup receivables, such write-downs are reversed in consolidation. Interim profits and losses from intragroup transactions are eliminated.

In accordance with IFRS 11, joint ventures are generally accounted for using the equity method insofar as the Group company holding the interest has typical shareholder rights applicable to the net assets of the joint venture.

As far as the rights of the Group company holding the interest apply to individual assets or liabilities, or the companies participating in the joint venture have entered into specific agreements regarding the division of the goods produced or services rendered by the joint venture, such a joint venture is deemed jointly operated and assets and liabilities, or expense and income, are accounted for using proportionate consolidation.

Where material, other companies in which Vossloh owns an equity interest of between 20 and 50 percent and where Vossloh can exercise a significant influence on their business and financial policies (associated companies) are accounted for using the equity method.

All other equity interests are measured at fair value and recognized in other noncurrent financial instruments.

There were minor changes to the scope of consolidation in the 2022 fiscal year: One previously insignificant Group company was included in the scope of consolidation for the first time on January 1, 2022. One other Group company was liquidated shortly before the end of the fiscal year, while six Group companies were merged on the basis of a number of related legal acts.

At the end of the fiscal year, 52 companies (previous year: 57) were fully included in the consolidated financial statements, nine of which were domiciled in Germany (previous year: 14).

Six companies domiciled outside of Germany and one company domiciled in Germany were accounted for using the equity method, unchanged from the previous year.

Due to their immateriality with respect to net assets, financial position and results of operations, eight companies (previous year: nine) in which Vossloh AG directly or indirectly holds a voting majority or otherwise controls as of the reporting date were not included in the consolidated financial statements.

Currency translation

Noneuro financial statements of subsidiaries are translated into euros as the Group currency according to the concept of functional currency. Since these subsidiaries are nearly all economically independent entities, their functional currencies correspond to their local currencies.

For balance sheet items, the current rate (mean exchange rate as of the reporting date) is used, while for the translation of income statement items, the annual average exchange rate is applied, which serves as an approximation of the respective rates on the transaction dates.

Compared with the translation of the previous year, currency translation differences in assets and liabilities, and between income statement and balance sheet, are recognized directly in the equity and presented in the line item "Accumulated other comprehensive income".

Since the beginning of the fiscal year, the functional currency of one foreign company has been changed from the local currency to the euro due to a changed economic environment. The financial statements of the company in question, which is prepared in the local currency, are converted using the temporal method. Accordingly, so-called non-monetary items (essentially property, plant and equipment in the case of the company concerned) and the corresponding depreciation/amortization are translated at the historical exchange rate at the date of the change in functional currency. The other items in the balance sheet are translated at the current rate, and expenses and income – with the exception of depreciation/amortization – are translated at the average exchange rate for the year.

In the individual financial statements, foreign currency transactions are translated using the exchange rate at the time of the recognition of the transaction. Gains or losses arising up to the end of the reporting period from the remeasurement of financial instruments or cash and cash equivalents are recognized in profit or loss.

The exchange rates of countries outside of the eurozone in which Vossloh transacts major business through consolidated subsidiaries are listed below:

Exchange rates

Country	Currency	€	2022	2021	2022	2021
			Current rate		Annual average exchange rate	
Australia	AUD	1 €	1.57	1.57	1.52	1.57
China	CNY	1 €	7.42	7.25	7.09	7.63
United Kingdom	GBP	1 €	0.89	0.84	0.85	0.86
India	INR	1 €	88.33	84.42	82.74	87.48
Canada	CAD	1 €	1.45	1.44	1.37	1.48
Malaysia	MYR	1 €	4.70	4.74	4.63	4.90
Mexico	MXN	1 €	20.80	23.28	21.21	24.00
Poland	PLN	1 €	4.68	4.58	4.69	4.56
Sweden	SEK	1 €	11.13	10.28	10.63	10.15
Serbia	RSD	1 €	117.30	117.58	117.46	117.58
Turkey	TRY	1 €	19.97	15.07	17.39	10.46
USA	USD	1 €	1.07	1.14	1.05	1.18

Notes to the income statement

(1) Sales revenues

Breakdown of sales revenues

€ mill.	2022	2021
Sales of products		
Vossloh Fastening Systems	341.3	292.4
Vossloh Tie Technologies	156.3	142.3
Consolidation	(15.5)	(5.6)
Core Components	482.1	429.1
Customized Modules	454.7	416.9
Lifecycle Solutions	22.0	22.6
Consolidation	(28.1)	(20.2)
Group	**930.7**	**848.4**
Sales revenues from rendering services		
Lifecycle Solutions	106.2	84.6
Group	**106.2**	**84.6**
Sales revenues from customer-specific manufacturing		
Customized Modules	1.4	1.8
Lifecycle Solutions	7.8	8.3
Consolidation	0.0	(0.3)
Group	**9.2**	**9.8**
Total Group sales across all activities	**1,046.1**	**942.8**
Sales revenues by division and business unit		
Vossloh Fastening Systems	341.3	292.4
Vossloh Tie Technologies	156.3	142.3
Consolidation	(15.5)	(5.6)
Core Components	482.1	429.1
Customized Modules	456.1	418.7
Lifecycle Solutions	136.0	115.5
Consolidation	(28.1)	(20.5)
Group	**1,046.1**	**942.8**

The performance obligations of Group companies consist primarily of the delivery of typical products or the rendering of services, which are listed in the description of the business activities of the divisions and business units in the Notes to the segment report on page 159.

Sales revenues are recognized net of sales deductions and price allowances such as discounts, bonuses, rebates, and refunded charges or returns credited.

As a general rule, in accordance with IFRS 15, recognition takes place upon transfer of control of the products to be delivered on the basis of the respective contractually agreed incoterms. In most cases, this is covered by the transfer of ownership and risks to the buyer or when the customer takes physical possession. At several Group companies, “bill-and-hold” arrangements have been agreed upon because the customers manage the delivery of products on the basis of their own planning of construction projects in cases of new or overhauled rail routes. In such cases, the products have already been accepted by the customer in advance and are also stored separately as the property of the customer. Where partial invoices have been contractually agreed upon in advance, sales are recognized after the customer has finally and formally accepted the partial delivery. The payment terms for the majority of customer contracts do not include any financing components. Some orders include de facto redemption obligations for individual components in the event that due to specific effects components need to be replaced with more suitable versions. Contractual guarantees are also concluded at arm’s length basis.

For certain projects, the performance of the owed service and the associated revenue recognition take place over a period of time. The same applies generally to the rendering of services. In this context, the proportional earnings contribution realized as of the reporting date is also recognized along with the sales revenue in the income statement. The percentage of completion method (PoC) establishes the percentage of the contracts that have been fulfilled based on the ratio of costs already incurred to the estimated total contract costs (cost to cost method). Costs due to inefficiencies or similar causes are deducted in the calculation of the percentage of completion. The proportional profit from the PoC method is recognized only where the results of the customer contracts can be determined reliably. If this condition is not met, sales are recognized without including the proportional profit. Where a loss from a customer contract is imminent, this is recognized in full.

The segment report presented on page 124 et seq. and explained on page 159 et seq. includes breakdowns of external sales revenues by division, business unit and region. A further overview of overall sales by region can also be found in the combined management report on page 40 of this annual report.

(2) Functional expenses

According to the cost-of-sales format of the income statement presentation, expenses are allocated to functional categories. The following expense types and their amounts are included in cost of sales, selling, general administrative, and research and development expenses:

Breakdown of cost types € mill.

€ mill.	2022	2021
Cost of raw materials and supplies	464.1	409.0
Cost of services purchased	71.8	58.3
Cost of materials	**535.9**	**467.3**
Wages and salaries	182.3	169.5
Social security expenses and charges	38.5	36.8
Pension expenses	6.0	5.5
Personnel expenses	**226.8**	**211.8**
Depreciation/amortization	**53.1**	**51.9**

Based on the quarterly numbers, the average annual workforce structure was as follows:

	2022	2021
Executive Board/Management Board	22	22
Other managers/executives	94	94
Nontariff employees	884	881
Tariff employees	2,868	2,693
Apprentices/trainees	50	39
Interns and working students	16	13
Total	**3,934**	**3,742**

The number of employees in the Vossloh Group in accordance with Section 314 (1) No. 4 of the German Commercial Code was 3,846 (previous year: 3,668). The values indicate the number of persons employed; the average employee figures broken down by segment on page 124 et seq. are based on a conversion to Full Time Equivalents (FTE).

(2.1) Cost of sales

Cost of sales covers the cost of goods sold and services rendered in the period. Besides such direct costs as materials, labor and energy, cost of sales comprises indirect costs, primarily depreciation on plant, property and equipment, in addition to amortization of intangible assets. Cost of sales also includes any write-downs of inventories in the period.

(2.2) General administrative and selling expenses

Breakdown of general administrative and selling expenses

€ mill.	2022	2021
Selling expenses	68.6	65.3
General administrative expenses	95.1	95.5
General administrative and selling expenses	**163.7**	**160.8**

In addition to personnel expenses, selling expenses primarily include outbound freights and commissions.

General administrative expenses cover personnel, material and other administration expenses, including amortization and depreciation of corresponding assets.

(2.3) Research and development costs

All research costs are directly expensed as research and development expenses in the income statement.

Costs incurred for developing a marketable product are capitalized if the criteria in IAS 38 are met. Noncapitalizable development costs are also recognized under this line item in the income statement.

R&D expenses before capitalized development expenses came to €10.3 million in the year under review (previous year: €10.3 million). Of these costs incurred in development departments, €2.0 million (previous year: €1.3 million) were recognized in the balance sheet.

(3.1) Other operating income

Breakdown of other operating income

€ mill.	2022	2021
Currency exchange gains	6.9	5.4
Income from government grants	1.5	1.6
Rental income	0.8	1.1
Insurance reimbursements	0.5	0.3
Income from the disposal of intangible assets and property, plant and equipment	0.3	1.8
Release of allowances and reversal of write-downs	0.0	0.0
Other income	10.9	8.5
Other operating income	**20.9**	**18.7**

Currency exchange gains and losses also include changes in the market value of stand-alone derivatives for the economic hedging of currency risks.

Income from government grants is mainly related to subsidies for R&D projects.

Payments received to subsidize expenses are recognized as deferred income under the other liabilities and amortized to the other operating income pro rata.

Investment/capex-related grants or incentives are offset against the cost of the property, plant and equipment concerned. Conditions yet to be met and where the failure to meet such conditions would entail the repayment of grants do not exist, nor do other contingent liabilities in this regard.

Other income includes, among other things, subsidies of €3.8 million (previous year: €0.7 million) as part of an infrastructure project of Deutsche Bahn. The income was offset by expenses over the duration of the project.

(3.2) Other operating expense

Breakdown of other operating expense

€ mill.	2022	2021
Currency exchange losses	(9.7)	(5.3)
Losses on the disposal of intangible assets and property, plant and equipment	(0.4)	(0.6)
Expenses for buildings	(0.4)	(0.6)
Impairment of intangible assets and property, plant and equipment	(0.1)	(0.4)
Impairment of inventories and other assets	0.0	(0.3)
Other expenses	(0.7)	(0.6)
Other operating expense	**(11.3)**	**(7.8)**

The currency exchange losses in the previous year included expenses of €1.8 million from the release of the currency translation difference in connection with the sale and the subsequent deconsolidation of a South American company.

(4.1) Other financial income

Breakdown of other financial income

€ mill.	2022	2021
Income from investments	0.3	0.1
Income from the measurement of financial instruments at fair value	0.0	5.5
Income from shares in affiliated companies	0.0	0.8
Other financial income	**0.3**	**6.4**

All income from the measurement of financial instruments at fair value in the previous year is related to the revaluation of the shares in joint ventures previously accounted for using the equity method in connection with a transitional consolidation due to the acquisition of control. This involved shares in two companies in the Switch Systems business unit.

(4.2) Other financial expense

Breakdown of other financial expense

€ mill.	2022	2021
Write-down of financial instruments	(2.1)	0.0
Other financial expense	**(2.1)**	**0.0**

The expense was largely the result of the write-down of a joint venture accounted for using the equity method.

(5.1) Interest and similar expense

Breakdown of interest and similar expense

€ mill.	2022	2021
Interest from bank liabilities	(4.9)	(4.8)
Interest from leases	(1.1)	(1.1)
Guarantee commissions	(0.6)	(0.8)
Other interest expense	(11.5)	(6.0)
Interest and similar expense	**(18.1)**	**(12.7)**

The majority of other interest expense relates to currency exchange losses from intragroup financing.

(5.2) Interest income

Currency exchange gains from intragroup financing totaling €6.8 million (previous year: €4.3 million) make up the majority of the €7.5 million in interest income reported in the income statement (previous year: €5.2 million).

(6) Income taxes

Breakdown of income taxes

€ mill.	2022	2021
Current income taxes	24.7	18.5
Deferred taxes	(12.2)	10.1
Income taxes	**12.5**	**28.6**

Of the current income taxes, €0.8 million (previous year: €(2.1) million) related to matters from previous years. In the case of deferred taxes, the amount was €(1.9) million (previous year: €0.1 million). A total of €10.1 million of deferred tax income resulted from the reversal of temporary differences and from tax loss and interest carryforwards (previous year: tax expense of €9.7 million). Remeasurements of temporary differences resulted in a deferred tax expense of €0.7 million (previous year: €0.3 million).

In Germany, the statutory corporate income tax rate of 15 percent and the solidarity surcharge (5.5 percent of corporate income tax) are applied. Municipal trade tax is also collected at rates defined by the respective local municipalities. An average tax rate of 32.18 percent is expected for Vossloh AG as the parent company (previous year: 32.15 percent).

The Vossloh Group's actual tax expense of €12.5 million (previous year: €28.6 million) was €9.2 million lower than the anticipated tax expense (previous year: €7.8 million higher actual tax expense) that would have resulted from applying a Group holding-wide tax rate to EBT.

The reconciliation of the expected income tax expense to the actual income tax shown in the consolidated income statement is presented below:

Reconciliation to the recognized income tax expense

		2022	2021
Earnings before taxes	€ mill.	67.5	64.8
Income tax rate including trade taxes	%	32.18	32.15
Expected tax expense when applying a uniform tax rate	€ mill.	21.7	20.8
Tax reduction/increase due to divergent foreign income tax rates	€ mill.	(7.8)	(6.5)
Tax reduction due to tax-exempt income	€ mill.	(1.6)	(1.4)
Tax increase due to nondeductible expenses	€ mill.	3.4	2.9
Taxes for previous years	€ mill.	(1.1)	(2.0)
Tax effect from write-ups/write-downs of deferred tax assets	€ mill.	(3.7)	14.3
Withholding tax effects and double-taxation	€ mill.	1.3	1.2
Effect from the remeasurement of deferred taxes	€ mill.	0.7	0.3
Effects from the measurement of investments in companies accounted for using the equity method	€ mill.	(0.6)	(1.5)
Other differences	€ mill.	0.2	0.5
Recognized income tax expense	€ mill.	12.5	28.6
Effective income tax rate	%	18.5	44.1

The appreciation of deferred tax assets in the reporting year was mainly the result of a partial write-up of the previously impaired deferred tax assets on loss and interest carryforwards recognized by Vossloh AG. This was a consequence of restructuring under company law and an associated increase in the size of the German tax group. In addition, deferred tax assets were written up due to a reassessment of the expected taxable profits within the French groupe fiscale. The total of deferred taxes recognized in other comprehensive income amounted to €(4.5) million (previous year: €(0.7) million). Those deferred taxes arose from the remeasurement of defined benefit plans in the amount of €(3.1) million (previous year: €(0.7) million) to be accounted for in the fiscal year in addition to changes in the valuation of hedging instruments from cash flow hedges amounting to €(1.4) million (previous year: €0.0 million).

Taxable temporary differences of €173.7 million resulted from the valuation of investments in the respective parent companies and the net assets in the consolidated balance sheet (previous year: €180.1 million). The resulting deferred taxes to be recognized would theoretically amount to €2.3 million (previous year: €2.3 million). Because the Group can manage the reversal of temporary differences and this reversal is not considered likely in the near future, no related deferred tax liabilities are incurred.

(7) Result from discontinued operations/assets and liabilities held for sale

As in the previous year, the result from discontinued operations in the reporting year resulted from the continuing effects of earlier sales of business units.

The following table shows a breakdown of the result from discontinued operations in the income statement:

Composition of the result from discontinued operations

€ mill.	2022	2021
Subsequent effects from former business units	1.0	(0.3)
Result from discontinued operations	**1.0**	**(0.3)**
thereof attributable to shareholders of Vossloh AG	1.0	(0.3)
thereof attributable to noncontrolling interests	–	–

The assets and liabilities held for sale reported on the balance sheet relate to an activity in the Switch Systems business unit, which is subject of a sales project as of the reporting date. This project was started in the year under review. As of the 2022 reporting date, the Vossloh AG Executive Board expects the sale to be completed within the next twelve months.

The following table shows the main groups of assets held for sale and the related liabilities:

Assets and liabilities related to disposal groups

€ mill.	12/31/2022	12/31/2021
Intangible assets (excl. goodwill)	1.4	–
Goodwill	3.6	–
Property, plant and equipment	0.5	–
Other noncurrent assets	0.0	–
Noncurrent assets	**5.5**	**–**
Inventories	4.4	–
Trade receivables	2.2	–
Receivables from construction contracts	3.3	–
Other current assets	0.3	–
Cash and cash equivalents	0.4	–
Current assets	**10.6**	**–**
Assets	**16.1**	**–**
Provisions	2.0	–
Trade payables	2.5	–
Liabilities from leases	0.2	–
Other liabilities	5.1	–
Liabilities	**9.8**	**–**

(8) Noncontrolling interests

The share of the Group's total net income attributable to noncontrolling interests includes shares in profit of €8.4 million (previous year: €7.9 million) and shares in losses of €0.1 million (previous year: €0.2 million).

(9) Earnings per share

		2022	2021
Weighted average of shares outstanding	Number	17,564,180	17,564,180
Net income attributable to Vossloh AG shareholders	€ mill.	41.7	23.1
Basic/diluted earnings per share	€	2.38	1.31
thereof attributable to continuing operations	€	2.32	1.33
thereof attributable to discontinued operations	€	0.06	(0.02)

Notes to the cash flow statement

The cash flow statement shows the changes in cash and cash equivalents as well as bank overdrafts within the Vossloh Group. Cash pertains to cash on hand and in the bank. Cash equivalents comprise any financial instruments with a maximum residual term of three months from the time of acquisition that can be readily converted into cash. Bank overdrafts result from credit balances of bank balances due in the near future, as well as from sub-lines in the context of the credit agreement that is due in principle by November, 2024, and are included in cash and cash equivalents. In the balance sheet, these sub-lines are recognized under the noncurrent financial liabilities as a part of the drawdown from the credit agreement.

Therefore, in addition to the cash and cash equivalents of €76.8 million (previous year: €75.0 million) reported in the balance sheet, cash also includes bank overdrafts of €48.3 million (previous year: €45.4 million). In addition, at the end of the period, €0.4 million is held in a disposal group and reported under "Assets held for sale" in accordance with IFRS 5.

The cash flow statement is prepared in conformity with IAS 7 and classifies changes in cash and cash equivalents and those of bank overdrafts into cash flows from operating, investing and financing activities. The cash flow from operating activities is presented according to the indirect method.

The other noncash income and expenses primarily encompass currency translation effects and the changes to deferred taxes. In the cash receipts and payments arising from the purchase or sale of consolidated companies and other units, the cash inflows and outflows are offset against each other. In the previous year, cash received of €1.1 million was offset against purchase price payments of €10.6 million. Proceeds from the sale of consolidated companies in the previous year included cash outflows of €0.5 million, and the required payments made in connection with the sale amounting to €0.3 million.

The line item "Net financing from short-term loans" includes the repayment of the Schuldschein loan tranche of €25 million, which was terminated prematurely. In the previous year, this item included the repayment of the Schuldschein loan tranche due in the amount of €135 million from the inflow of funds from hybrid capital, a new loan of €15 million from Bayerische Landesbank and short-term loans repaid by Vossloh Fastening Systems (China) Co. of around €12 million.

In the year under review, "Net financing from medium-term and long-term loans" included the increased utilization under the syndicated loan totaling around €52 million. In the previous year, this line item included the new issue of a Schuldschein loan in the amount of €25 million and a medium-term loan from DZ Bank AG and around €47 million lower utilization under the syndicated loan. For more information, see our notes on the financial liabilities under (26.1).

As it did not result in cash flows, the reclassification of the aforementioned Schuldschein loan tranche of €25 million, which was terminated prematurely in January 2022, from medium-term to short-term was not reflected in the two relevant items of the cash flow statement "Net financing from short-term loans" and "Net financing from medium-term and long-term loans" in the previous year's column.

The figures in the cash flow statement shown on page 121 relate to the entire Group, including effects from discontinued operations. Of the total values, €1.0 million (previous year: €(0.1) million) of the gross cash flow was attributable to discontinued operations. In the cash flow from operating activities and in the free cash flow, €(0.1) million was attributable to discontinued operations in the previous year, while in the year under review, the values in the cash flow statement came entirely from continuing operations.

The following table shows the breakdown of the changes in financial liabilities (excluding bank overdrafts), as well as the derivatives from hedging relationships included in the cash flow from financing activities, between cash and noncash items:

€ mill.	Long-term and medium-term credit liabilities	Short-term credit liabilities	Lease liabilities	Derivatives in hedging relationships	Total
As of 12/31/2020	**177.3**	**162.6**	**43.9**	**4.1**	**387.9**
Payments for the period	12.0	(148.3)	(11.3)	0.0	(147.6)
Noncash changes					
Reclassification	(25.0)	25.0	0.0	0.0	0.0
Change due to company acquisition	0.0	0.0	0.5	0.0	0.5
Changes due to first-time consolidation	0.0	0.0	0.0	0.0	0.0
Interest payable to hybrid capital investors	–	5.1	–	–	5.1
New lease agreements	0.0	0.0	7.7	0.0	7.7
Changes in fair value	0.0	0.0	(0.3)	(0.2)	(0.5)
Currency effects	0.0	0.0	0.0	0.0	0.0
Other	0.0	(4.2)	1.1	0.0	(3.1)
As of 12/31/2021	**164.3**	**40.2**	**41.6**	**3.9**	**250.0**
Payments for the period	45.1	(21.2)	(12.4)	0.0	11.5
Noncash changes					
Change due to disposal groups which have been sold and those which are held for sale	0.0	0.0	0.2	0.0	0.2
New lease agreements	0.0	0.0	9.9	0.0	9.9
Changes in fair value	0.0	0.0	(0.3)	(9.4)	(9.7)
Currency effects	0.0	0.0	(0.2)	0.0	(0.2)
Other	0.0	0.0	1.1	0.0	1.1
As of 12/31/2022	**209.4**	**19.0**	**39.9**	**(5.5)**	**262.8**

Notes to the balance sheet

Balance sheet structure

The balance sheet is structured into noncurrent and current assets and liabilities. Assets and liabilities maturing or due within one year are deemed current.

Regardless of their maturity, trade receivables and trade payables are always considered current, even if due after one year but within the normal business cycle.

Deferred taxes are recognized as noncurrent assets or liabilities.

(10) Intangible assets

Breakdown of intangible assets

€ mill.	2022	2021
Goodwill	295.8	297.4
Development costs	5.9	4.2
Concessions, licenses and property rights	28.6	31.3
Advance payments	14.7	10.3
	345.0	**343.2**

Except for goodwill, all intangible assets have a finite useful life and are therefore carried at amortized cost.

Goodwill is carried in the respective functional currency of the Group company whose acquisition gave rise to the goodwill.

Pursuant to IFRS 3 in conjunction with IAS 36, goodwill from acquisitions is not amortized but is tested annually for impairment as of the balance sheet date or upon the occurrence of triggering events. This involves comparing the recoverable amount, calculated as value in use, to the respective carrying amount of a group of cash-generating units (CGUs). Within the Vossloh Group, goodwill is assigned to the business units, which represent groups of CGUs. The impairment test is performed at this level. The value in use is calculated based on the medium-term budget for the respective units and is derived from the expected discounted cash flows. In this respect, key assumptions are the anticipated orders resulting from sales planning, the corresponding expected sales revenues and the full earnings and balance sheet planning based on this.

When measuring the value in use by discounting anticipated cash flows (after taxes), a discount rate after taxes specific to the business unit is applied. When determining the respective discount rate, weighted specific country risks, inflation/currency adjustments and tax rates are taken into account, while the weightings for the country risks as well as the inflation effects were derived from the regional distribution of sales from both the year under review and over the budget periods. In contrast, the tax rates are determined based on the relative earnings contributions of the companies within the business units. The regional distribution of sales as a weight in determining the discount rate for the perpetual annuity is based solely on sales revenues in the last planning year. Especially for the purpose of differentiated consideration of the current and long-term inflation/currency adjustment of the cost of capital, various after-tax discount rates are determined for the planning period and the perpetual annuity, which primarily differ with regard to the inflation/currency adjustment they include. Furthermore, uniform pre-tax discount rates specific to the business units are calculated whereby the same value in use arises based on the pre-tax cash flows that results from discounting the after-tax cash flows with the differentiated after-tax discount rates. The pre-tax discount rates for the individual business units are indicated in the table below.

The planning is based on empirical data and expected future market trends and encompasses a detailed planning period of three years. The expected sales growth of the business units is based on the planned projects and projects which are already included in the order backlog to various extents. The business units' average annual sales growth rate, which is anticipated for this period in line with the medium-term budget, is reported in the table below. The growth rate of the perpetual annuity is set at 50 percent of the business unit-specific inflation rate resulting from the discount factor calculation for the perpetual annuity described above.

For periods further in the future, the perpetual annuity is accounted for by using extrapolated cash flows and the growth rate described above to determine the value in use. This takes into account the financing of working capital and property, plant and equipment to the same extent in the cash flow. As the business units' values in use (including assigned goodwill) exceed their carrying amounts, no goodwill impairment loss had to be recognized. For sensitivity analyses, various scenarios are examined: an increase in the after-tax discount rates of 50 basis points and a general reduction in cash flows by 7.5 percent. It was not necessary to impair goodwill under any scenario.

Breakdown of goodwill by business unit

€ mill.	2022	2021	2022	2021	2022	2021	2022	2021
	Discount rate (in %)		Growth rate of the perpetual annuity (in %)		Average sales growth p.a. (in %)		Total value*	
Vossloh Switch Systems	12.33	10.62	1.24	1.27	5.2	4.9	184.5	187.9
Vossloh Rail Services	9.87	8.05	1.03	1.03	12.4	15.3	64.0	64.0
Vossloh Tie Technologies	10.11	9.48	1.11	1.13	11.4	5.6	59.8	56.7
Vossloh Fastening Systems	14.77	11.30	1.40	1.24	5.1	5.6	26.3	26.9
							334.6	**335.5**

*Carrying amount plus calculated noncontrolling interests

For the purposes of the impairment test, the goodwill of the Switch Systems business unit includes €26.5 million (previous year: €25.5 million) in calculated noncontrolling interests, and the goodwill of the Fastening Systems business unit includes €12.2 million (previous year: €12.6 million) in calculated noncontrolling interests. The changes to goodwill during the fiscal year resulted mainly from the reclassification of the goodwill attributable to the activity to be sold within the Switch Systems business unit, and also from changes in exchange rates.

Development costs are capitalized at manufacturing costs wherever such costs can be clearly assigned, the technical feasibility and future marketability can be expected with sufficient certainty, and the development work is reasonably certain to produce future cash inflows.

Manufacturing costs include all costs directly or indirectly assignable to the development process.

Capitalized development costs are amortized on a straight-line basis over useful lives of 1 to 18 years. Concessions, licenses and property rights are mostly amortized on a straight-line basis over a period of 1 to 30 years.

The amortization of intangible assets in the amount of €2.0 million (previous year: €3.3 million) is included in the income statement under cost of sales, €3.3 million (previous year: €1.8 million) under general administrative and selling expenses and €0.4 million (previous year: €0.5 million) under research and development costs.

Impairments were recorded in the year under review in the amount of €0.1 million (previous year: €0.4 million).

Development of intangible assets

€ mill.	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	Goodwill		Development costs		Concessions, licenses and property rights		Advance payments		Intangible assets	
Net carrying amount as of December 31	**295.8**	**297.4**	**5.9**	**4.2**	**28.6**	**31.3**	**14.7**	**10.3**	**345.0**	**343.2**
Cost										
As of January 1	**351.2**	**329.6**	**10.8**	**11.1**	**71.2**	**65.7**	**10.7**	**7.7**	**443.9**	**414.1**
Changes from first-time consolidation/business acquisitions	0.0	7.2	0.0	0.0	0.0	4.7	0.0	0.0	0.0	11.9
Changes from transitional consolidation and deconsolidation	0.0	10.7	0.0	0.0	0.0	2.1	0.0	0.0	0.0	12.8
Additions/ongoing investments	0.0	0.0	0.2	0.0	1.0	1.2	8.0	3.1	9.2	4.3
Disposals	0.0	(0.8)	0.0	(0.3)	(0.2)	(4.6)	(0.1)	0.0	(0.3)	(5.7)
Transfers	0.0	0.0	1.9	0.0	1.6	0.1	(2.2)	(0.1)	1.3	0.0
Reclassifications according to IFRS 5	(3.6)	0.0	0.0	0.0	(0.6)	0.0	(1.3)	0.0	(5.5)	0.0
Currency translation differences	2.0	4.5	0.0	0.0	0.7	2.0	0.0	0.0	2.7	6.5
As of December 31	**349.6**	**351.2**	**12.9**	**10.8**	**73.7**	**71.2**	**15.1**	**10.7**	**451.3**	**443.9**
Accumulated amortization and impairment losses										
As of January 1	**53.8**	**54.6**	**6.6**	**6.2**	**39.9**	**38.9**	**0.4**	**0.0**	**100.7**	**99.7**
Changes from transitional consolidation and deconsolidation	0.0	0.0	0.0	0.0	0.0	(0.4)	0.0	0.0	0.0	(0.4)
Amortization and impairment losses in the fiscal year	0.0	0.0	0.4	0.4	5.4	5.2	0.0	0.4	5.8	6.0
Disposals	0.0	(0.8)	0.0	0.0	(0.2)	(4.5)	0.0	0.0	(0.2)	(5.3)
Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reclassifications according to IFRS 5	0.0	0.0	0.0	0.0	(0.6)	0.0	0.0	0.0	(0.6)	0.0
Currency translation differences	0.0	0.0	0.0	0.0	0.6	0.7	0.0	0.0	0.6	0.7
As of December 31	**53.8**	**53.8**	**7.0**	**6.6**	**45.1**	**39.9**	**0.4**	**0.4**	**106.3**	**100.7**

The multiyear project dedicated to introducing a Group-wide standardized enterprise resource planning system (one.ERP) accounted for €6.5 million of the rise in advance payments on intangible assets.

(11) Property, plant and equipment

Breakdown of property, plant and equipment

€ mill.	2022	2021
Land, leasehold rights and buildings including buildings on nonowned land	105.1	105.0
Rights of use to land, leasehold rights and buildings including buildings on nonowned land	23.4	27.7
Technical equipment and machinery	128.1	126.6
Rights of use to technical equipment and machinery	11.8	9.8
Other plant, factory and office equipment	16.2	16.3
Rights of use to other equipment, factory and office equipment	6.1	5.2
Advance payments and construction in process	35.7	33.2
	326.4	**323.8**

Property, plant and equipment is capitalized at cost and depreciated on a straight-line basis over the expected useful live. In addition to the purchase price, acquisition costs include incidental acquisition costs. Acquisition costs are reduced by purchase price reductions.

In the case of qualifying assets as defined by IAS 23, the borrowing costs allocable to the production period are also recognized.

In the year under review, as in the previous year, this matter was immaterial.

In accordance with IFRS 16, rights of use from leased property, plant and equipment is recognized at the time of addition using the sum total of the lease liability, payments before and at the beginning of use, ancillary costs in connection with entering into the contract and the estimated cost of restoration or similar liabilities at the end of the period of use. The initial valuation of the lease liability is derived from the present value of the expected lease payments. The interest rate used for the calculation of the present value is usually the marginal financing rate used in the monetary area with a similar maturity for the financing of an asset. The term of the agreements in question and by extension the sum total of expected lease payments is determined on the basis of the conditions of the agreement, in addition to the expectations of the relevant management team if extension or termination options are in place. Contracts are remeasured in response to changes in their expected term and other estimates. The resulting changes in value are shown in the line item "Remeasurements and modifications" in the table showing changes in carrying amounts. The relevant management has discretionary scope, which is documented for material lease agreements. Fixed payments are agreed in the majority of cases. Contractual residual value guarantees are recognized at their anticipated value. Hire-purchase agreements exist for a variety of assets in the Rail Services business unit. The purchase price at the end of the basic lease term was taken into account accordingly for the purposes of the measurement.

Capitalized rights of use are mainly depreciated over the assumed term of the lease agreement.

In the event of a following transfer of ownership, depreciation is based on the expected total period of use for the asset in question.

Development in property, plant and equipment including the rights of use capitalized in accordance with IFRS 16

€ mill.	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	Land, leasehold rights and buildings including buildings on nonowned land		Technical equipment and machinery		Other plant, factory and office equipment		Advance payments and construction in process		Property, plant and equipment	
Net carrying amount as of December 31	**128.5**	**132.7**	**139.9**	**136.4**	**22.3**	**21.5**	**35.7**	**33.2**	**326.4**	**323.8**
Cost										
As of January 1	**220.3**	**190.8**	**394.8**	**366.2**	**65.3**	**56.0**	**39.4**	**52.8**	**719.8**	**665.8**
Remeasurements and modifications	0.0	0.0	0.0	0.0	0.0	0.0	–	–	0.0	0.0
Changes from first-time consolidation/business acquisitions	0.0	0.4	0.0	1.9	0.0	0.5	0.0	0.0	0.0	2.8
Changes from transitional consolidation and deconsolidation	0.0	2.9	0.0	1.2	0.0	0.4	0.0	0.4	0.0	4.9
Additions/ongoing investments	6.9	10.4	13.7	10.7	7.7	6.7	20.6	17.4	48.9	45.2
Disposals	(2.3)	(2.0)	(4.1)	(4.3)	(2.7)	(2.7)	0.0	(0.1)	(9.1)	(9.1)
Transfers	3.0	13.7	13.1	13.5	0.7	3.1	(17.9)	(31.3)	(1.1)	(1.0)
Reclassifications according to IFRS 5	(3.1)	0.0	(0.1)	0.0	(0.6)	0.0	0.0	0.0	(3.8)	0.0
Currency translation differences	1.2	4.1	1.0	5.6	(0.1)	1.3	(0.1)	0.2	2.0	11.2
As of December 31	**226.0**	**220.3**	**418.4**	**394.8**	**70.3**	**65.3**	**42.0**	**39.4**	**756.7**	**719.8**
Accumulated depreciation and impairment losses										
As of January 1	**87.6**	**73.6**	**258.4**	**233.9**	**43.8**	**38.5**	**6.2**	**6.2**	**396.0**	**352.2**
Depreciation and impairment losses in the fiscal year	14.5	13.3	23.3	24.9	7.2	6.9	0.0	0.0	45.0	45.1
Disposals	(2.1)	(1.6)	(3.6)	(3.1)	(2.6)	(2.5)	0.0	0.0	(8.3)	(7.2)
Transfers	0.0	0.9	0.0	(0.9)	0.1	0.0	0.1	0.0	0.2	0.0
Reclassifications according to IFRS 5	(2.7)	0.0	(0.1)	0.0	(0.5)	0.0	0.0	0.0	(3.3)	0.0
Currency translation differences	0.2	1.4	0.5	3.6	0.0	0.9	0.0	0.0	0.7	5.9
As of December 31	**97.5**	**87.6**	**278.5**	**258.4**	**48.0**	**43.8**	**6.3**	**6.2**	**430.3**	**396.0**

The following rights of use are capitalized as part of property, plant and equipment:

Development of capitalized rights of use in accordance with IFRS 16

€ mill.	2022	2021	2022	2021	2022	2021
	Land, leasehold rights and buildings including buildings on nonowned land		Technical equipment and machinery		Other plant, factory and office equipment	
Net carrying amount as of December 31	**23.4**	**27.7**	**11.8**	**9.8**	**6.1**	**5.2**
Cost						
As of January 1	**47.2**	**42.2**	**13.6**	**13.4**	**10.2**	**8.2**
Remeasurements and modifications	0.0	0.0	0.0	0.0	0.0	0.0
Changes from first-time consolidation/business acquisitions	0.0	0.3	0.0	0.2	0.0	0.1
Changes from transitional consolidation and deconsolidation	0.0	0.0	0.0	0.0	0.0	0.0
Additions/ongoing investments	2.8	4.7	3.6	0.0	3.5	3.0
Disposals	(0.8)	(0.7)	(1.1)	0.0	(1.3)	(1.1)
Transfers	0.0	0.0	(0.2)	0.0	0.0	0.0
Reclassifications according to IFRS 5	(0.2)	0.0	0.0	0.0	(0.1)	0.0
Currency translation differences	0.3	0.7	(0.1)	0.0	(0.2)	0.0
As of December 31	**49.3**	**47.2**	**15.8**	**13.6**	**12.1**	**10.2**
Accumulated depreciation and impairment losses						
As of January 1	**19.5**	**12.8**	**3.8**	**2.3**	**5.0**	**3.9**
Changes from transitional consolidation and deconsolidation	0.0	0.0	0.0	0.0	0.0	0.0
Depreciation and impairment in the fiscal year	7.2	6.8	1.4	1.5	2.4	2.2
Disposals	(0.7)	(0.4)	(1.0)	0.0	(1.2)	(1.1)
Transfers	0.0	0.0	(0.1)	0.0	0.0	0.0
Reclassifications according to IFRS 5	(0.1)	0.0	0.0	0.0	(0.1)	0.0
Currency translation differences	0.0	0.3	(0.1)	0.0	(0.1)	0.0
As of December 31	**25.9**	**19.5**	**4.0**	**3.8**	**6.0**	**5.0**

Depreciation is primarily based on the following useful lives:

Useful lives of property, plant and equipment

Buildings	5 to 50 years
Technical equipment and machinery	2 to 30 years
Other plant, factory and office equipment	2 to 30 years

Changes from first-time consolidation in the previous year included additions from the acquisition of the company ETS Spoor BV. Changes from transitional consolidation resulted from the transition of Vossloh Beekay Castings Ltd., New Delhi, India and Futrifer-Indústrias Ferroviárias SA, Lisbon, Portugal from the previous accounting using the equity method to full consolidation.

Significant additions to land, technical equipment/machinery and other plant, factory and office equipment were made in the reporting year at companies in the Fastening Systems and Rail Services business units. The increases in advance payments and construction in process were mainly driven by payments towards setting up a production facility for composite ties in the Fastening Systems business unit, expanding production capacities at the Australian sites of the Tie Technologies business unit and additional high-performance milling work in the Rail Services business unit.

Impairments going beyond the depreciation of property, plant and equipment were neither recorded in the year under review nor in the previous year.

Depreciation of property, plant and equipment is included in the income statement in the amount of €39.1 million (previous year: €39.3 million) under cost of sales, €5.8 million (previous year: €5.6 million) under general administrative and selling expenses and €0.1 million (previous year: €0.2 million) under research and development costs.

(12) Investment properties

Development of investment properties

€ mill.	2022	2021
Net carrying amounts	**1.3**	**7.4**
Cost		
As of January 1	**11.5**	**7.7**
Additions	0.0	1.9
Disposals	0.0	0.0
Transfers	(6.4)	1.0
Currency translation differences	0.0	0.9
As of December 31	**5.1**	**11.5**
Accumulated depreciation and impairment losses		
As of January 1	**4.1**	**3.3**
Depreciation in the fiscal year	0.2	0.5
Disposals	0.0	0.0
Transfers	(0.4)	0.0
Currency translation differences	(0.1)	0.3
As of December 31	**3.8**	**4.1**

Investment properties include land and buildings not used for operations and fully or partly leased to nongroup lessees. In accordance with IAS 40, buildings owned for investment purposes are carried at depreciated cost. Straight-line depreciation is based on useful lives of between 15 and 20 years.

Rental income in the reporting year amounted to €0.7 million (previous year: €1.0 million).

Expenses (including depreciation, maintenance and repairs and incidental costs) incurred for properties leased out totaled €0.4 million (previous year: €0.6 million); as in the previous year, there were no nonleased properties. As in the previous year, expenses for leased properties do not include any impairment losses. The fair value of property owned for investment purposes, including buildings under construction, totals €7.8 million (previous year: €8.0 million). Fair value is determined by accredited experts.

One investment property was reclassified in the fiscal year because Vossloh is no longer considered the beneficial owner of the property. With the disposal of the property, a financial receivable in the same amount is recognized under the balance sheet item “Other noncurrent financial instruments”. The carrying amount of the receivable was €5.2 million as of the balance sheet date.

(13) Investments in companies accounted for using the equity method

Information on investments in companies accounted for using the equity method

€ mill.	2022	2021
Result from continuing operations	4.6	4.5
Result from discontinued operations	0.0	0.0
Income and expenses recognized directly in equity	(0.7)	2.1
Total comprehensive income	**3.9**	**6.6**

Significant financial information for Wuhu China Railway Cogifer Track Co., Ltd., Wuhu, China, and Amurrio Ferrocarril y Equipos SA, Amurrio, Spain, which are accounted for using the equity method

€ mill.	2022		2021	
	Wuhu	Amurrio	Wuhu	Amurrio
Noncurrent assets	11.9	11.0	13.8	10.9
Current assets	32.6	39.6	27.2	29.6
thereof cash and cash equivalents	6.8	6.2	3.1	0.1
Noncurrent liabilities	0.0	0.9	0.0	1.4
thereof noncurrent financial liabilities	0.0	0.6	0.0	1.0
Current liabilities	15.6	20.5	14.9	10.7
thereof current financial liabilities	1.9	0.4	3.6	1.6
Sales revenues	27.1	34.8	21.0	35.8
Result from continuing operations	3.5	1.2	2.6	0.8
Depreciation/amortization	1.9	1.4	2.0	1.4
Interest income	0.1	0.2	0.5	0.2
Interest expenses	0.0	0.3	0.3	0.3
Tax expense	0.5	0.0	0.0	0.0
Total comprehensive income	**2.8**	**1.2**	**4.9**	**0.6**

Reconciliation of financial information to the at-equity carrying amount

€ mill.	2022		2021	
	Wuhu	Amurrio	Wuhu	Amurrio
Net assets January 1	**26.1**	**28.4**	**21.2**	**28.2**
Profit or loss	3.5	1.2	2.6	0.8
Income and expenses recognized directly in equity	(0.7)	0.0	2.3	(0.2)
Dividends	–	(0.4)	–	(0.4)
Net assets December 31	**28.9**	**29.2**	**26.1**	**28.4**
Proportional equity	14.5	14.6	13.1	14.2
Consolidations	0.1	0.1	0.1	0.0
Carrying amount	14.6	14.7	13.2	14.2

The investments in these companies are accounted for using the equity method. In this connection, the carrying amounts of associated companies are adjusted for proportional profits or losses after taxes, dividends distributed or any other changes in equity.

As in the previous year, these investments relate to six foreign companies and one domestic company, which in most cases are jointly controlled by a Group company and generally one external partner or over which significant influence is exercised. Detailed information about the scope of consolidation is provided in the notes on page 174 et seq. of this annual report.

(14) Other noncurrent financial instruments

Breakdown of other noncurrent financial instruments

€ mill.	2022	2021
Derivative financial instruments from hedging relationships	4.0	0.0
Other investments	3.5	3.3
Shares in unconsolidated affiliated companies	0.6	0.5
Loans	0.2	0.2
Securities	0.1	0.1
Other noncurrent financial assets	5.3	0.3
Other noncurrent financial instruments	**13.7**	**4.4**

Shares in unconsolidated affiliated companies where the criterion of control is fulfilled but which are not included in the scope of consolidation due to insignificance are generally recognized at fair value. They do not play a material role in the net asset and earnings position of the Group. The related assessment is made on the basis of the primary financial indicators of the companies, such as EBIT, sales revenues, total assets and equity. No further information is provided for these equity instruments in accordance with IFRS 9 due to lack of materiality.

Loans not quoted in an active market, as well as other noncurrent financial assets are initially measured on addition at fair value, which generally equals the nominal amount of the receivable or the loan amount, on the basis of the business model in place for such financial instruments (payment flows arise exclusively from interest payments and the repayment amount upon maturity). Non- and low-interest-bearing long-term loans and receivables are recognized at present value. For their subsequent measurement at amortized cost, the effective interest rate method is used.

Noncurrent securities with fixed or quantifiable payments and fixed maturities that are quoted in an active market and for which the business model described above applies are measured at amortized cost using the effective interest rate method.

Other noncurrent securities are recognized at fair value. Any fair value changes upon remeasurement are recognized directly in equity (OCI) and, upon disposal of such securities, the respective amount included in accumulated other comprehensive income is recycled to the income statement.

Other financial instruments are measured according to their IFRS 9 classification. For the reconciliation of the IFRS 9 measurement categories, see “Additional information on financial instruments” on page 160 et seq.

The increase in derivative financial instruments from hedging relationships is primarily due to two forward payer swaps, which were concluded in the year under review to hedge the interest level for the follow-up financing of the Schuldschein loans maturing in 2024.

The increase in other noncurrent financial assets was largely due to the reclassification of the carrying amount of a property previously held as an investment property and it being reported as a financial receivable. For further information, please refer to Note (12) on page 144 of this annual report.

(15) Other noncurrent assets

Other noncurrent assets mainly comprise prepaid expenses and deferred charges.

(16) Deferred taxes

In accordance with IAS 12, deferred taxes are recognized for temporary differences between tax bases and IFRS carrying amounts, for tax loss and interest carryforwards, as well as for consolidation transactions impacting the comprehensive income. Deferred taxes are determined at the tax rates enacted at the reporting date that will apply at the expected time of realization.

Deferred taxes arising from recognition and measurement differences and deferred taxes on loss and interest carryforwards were allocated to the following balance sheet items:

Deferred taxes

€ mill.	2022		2021	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets and property, plant and equipment	3.6	27.6	2.2	24.1
Inventories	3.8	0.0	2.7	0.0
Receivables	0.6	2.0	1.1	1.8
Other assets	3.9	0.3	0.0	0.0
Pension provisions	4.9	0.0	7.7	0.0
Other provisions	6.2	0.0	7.2	0.0
Liabilities	3.6	0.6	4.4	1.1
Other liabilities	1.4	4.3	1.9	3.8
Loss and interest carryforwards	14.5	–	3.7	–
Total	**42.5**	**34.8**	**30.9**	**30.8**
Netting	(25.4)	(25.4)	(18.6)	(18.6)
Deferred taxes according to the balance sheet	**17.1**	**9.4**	**12.3**	**12.2**

The line item "Other liabilities" includes deferred tax liabilities of €2.6 million (previous year: €2.5 million) arising from reserves which have not yet been taxed.

The changes in deferred tax assets and liabilities for the year under review were recognized primarily in the income statement, and to a lesser degree, in the statement of comprehensive income. This was also the case in the previous year.

As of December 31, 2022, tax loss carryforwards of €417.4 million (previous year: €403.0 million) existed in Germany for corporate income tax purposes and of €387.7 million for trade tax purposes (previous year: €388.2 million). No deferred taxes were recognized for corporate income tax losses of €383.7 million (previous year: €398.8 million), and no deferred taxes were recognized for trade tax losses of €354.1 million (previous year: €384.1 million). For the determination of deferred tax assets on loss or interest carryforwards, two additional years are considered beyond the three-year period of the detailed planning, as in previous periods, and the expected taxable income is estimated over this five-year period.

In addition, non-German companies reported tax loss carryforwards relating to comparable income taxes totaling €93.3 million (previous year: €111.8 million), of which €25.6 million (previous year: €9.1 million) resulted in deferred tax assets. In the year under review, deferred tax assets in the amount of €11.0 million (previous year: €14.2 million) were impaired or not recognized due to the relevant conditions not being met. At the same time, deferred tax assets of €14.7 million (previous year: 1.9 million), which had been impaired or could not yet be recognized, were recovered. According to current German law and the law of most other countries, the carryforward of tax losses is not subject to any limitation or expiration. Loss carryforwards totaling €15.8 million for non-German income taxes (previous year: €18.9 million) will expire in the future, of which €15.4 million (previous year: €17.2 million) expire after more than five years.

(17) Inventories

Breakdown of inventories

€ mill.	2022	2021
Raw materials and supplies	120.3	92.5
Work in process	47.7	35.2
Merchandise	24.0	23.1
Finished products	41.9	39.2
Advance payments	2.6	5.0
Total	**236.5**	**195.0**

Inventories are stated at the lower of cost or net realizable value. Manufacturing costs comprise all production-related costs. This includes directly attributable direct costs as well as all fixed and variable manufacturing overheads systematically allocable to the production process and special direct manufacturing costs. Borrowing costs are capitalized as part of cost wherever qualifying assets, according to IAS 23, exist. To the extent that a group valuation is made, inventories are valued at the moving average price. Inventory risks from obsolescence or slow-moving items are taken into account by appropriate allowances. Allowances on inventories amounted to €19.5 million as of the balance sheet date (previous year: €18.7 million), which primarily resulted from excessive inventories. Of this amount, €0.9 million was recognized in profit or loss in the year under review (previous year: €0.4 million).

The carrying amount of inventories recognized at net realizable value totaled €16.6 million (previous year: €20.8 million). As the reasons for previous write-downs no longer existed, inventories were written up in 2022 by €0.6 million (previous year: €0.2 million).

(18) Trade receivables and contract assets

Given their short remaining term, trade receivables are carried at their nominal value. The simplified method for calculating the expected credit loss (ECL) is applied for valuation allowances. Possible changes in credit risk are taken into account at each reporting date by analyzing the risk on the basis of the entire term of the receivables by means of a provision matrix based on the actual receivables defaults per business unit. Prior experiences are then supplemented with future-oriented information such as macroeconomic circumstances and expectations for the business units. Depending on the age of the trade receivables, valuation allowances are recognized at a loss rate based on the number of days of arrears. Trade receivables from certain customers are treated as a special category based on past experiences and thus impaired to a lesser extent, despite being past due by more than 360 days. The provision matrix is presented in table format below:

	2022				2021			
Risk class	Gross carrying amounts (€ mill.)	Net carrying amounts (after factoring in individual risks without refundable VAT) (€ mill.)	Allowance (€ mill.)	Average loss rate Vossloh Group (in %)	Gross carrying amounts (€ mill.)	Net carrying amounts (after factoring in individual risks without refundable VAT) (€ mill.)	Allowance (€ mill.)	Average loss rate Vossloh Group (in %)
Assets not due	167.3	140.3	0.1	0.03	165.4	137.5	0.1	0.11
Overdue by 1 to 30 days	22.2	19.6	0.0	0.07	15.4	13.7	0.0	0.28
Overdue by 31 to 90 days	14.8	13.2	0.0	0.29	20.5	18.2	0.1	0.42
Overdue by 91 to 180 days	8.1	7.2	0.0	0.53	9.4	8.4	0.1	0.94
Overdue by 181 to 360 days	6.5	5.8	0.2	3.06	4.8	4.3	0.1	2.30
Overdue by more than 360 days	1.7	1.5	0.1	4.77	1.3	1.1	0.2	17.06
Overdue by more than 360 days with individual allowance	14.8	13.2	0.1	0.91	4.3	3.9	0.2	4.30
	235.4	**200.8**	**0.5**		**221.1**	**187.1**	**0.8**	

Specific risks are taken into account by appropriate allowances. If there are indications of probable impairment, such as a declaration of insolvency, an appropriate valuation allowance is recognized. Derecognition only occurs if the recovery of the respective receivable is virtually impossible for legal or practical reasons (e.g. after the end of insolvency proceedings).

The balance and changes in the allowances for trade receivables are presented below:

Development of the allowances (including consideration of individual risks) for trade receivables

€ mill.	2022	2021
Balance as of January 1	**10.9**	**13.4**
Addition from company acquisitions/transitional consolidation	0.0	0.2
Additions	1.0	0.3
Releases	(1.7)	(2.6)
Utilizations	(0.6)	(0.4)
Currency translation differences	0.0	0.0
Balance as of December 31	**9.6**	**10.9**

Contract assets and liabilities result from the recognition of customer contracts for which revenue is realized over the course of the fulfillment of the performance obligation. For each pertinent contract, the contract costs – including a proportion of profit corresponding to the percentage of completion less any loss recognized in full – are recognized as a contract asset or contract liability. Where total progress under construction contracts exceeds the total of all advance payments received from customers or arranged partial billings, construction contracts are presented under assets as a contract asset. Where the situation is reversed, after advance payments are credited toward total progress, they are recognized on the balance sheet under liabilities as contract liabilities. Prepayments as a rule only take place to a limited extent, with the result that the orders relevant in this context typically result in a debit balance during the period of fulfillment of performance obligations.

Contract assets and liabilities

€ mill.	2022		2021	
	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Contract costs	1.0	0.0	6.4	0.8
Proportional profit	0.4	0.0	0.4	0.2
Proportional losses	0.0	0.0	(0.2)	0.0
Total progress under construction contracts	1.4	0.0	6.6	1.0
Advance payments received	0.0	0.0	0.0	0.0
Partial billings	0.0	0.0	(3.7)	(1.0)
Balance sheet presentation	**1.4**	**0.0**	**2.9**	**0.0**

(19) Income tax assets

Tax refund claims include €0.3 million of income taxes (previous year: €0.4 million) reimbursable to companies of the Fastening Systems business unit, €7.7 million (previous year: €5.7 million) to Vossloh Switch Systems, €0.4 million (previous year: €0.6 million) to the companies of the Rail Services business unit, €0.5 million (previous year: €0.2 million) to the Tie Technologies business unit and €0.0 million (previous year: €0.1 million) to companies at Group level.

(20) Other current financial instruments and other current assets

Breakdown of other current financial instruments and other current assets

€ mill.	2022	2021
Receivables from reimbursements	9.1	8.8
Other financial receivables	2.3	6.0
Derivative financial instruments	1.8	0.2
Security and similar deposits	1.6	1.3
Creditors with debit balances	0.4	0.4
Receivables from employees	0.2	0.3
Receivables from affiliated companies	0.1	0.6
Interest receivables	0.0	0.1
Receivables from investees	0.0	0.0
Other current financial instruments	**15.5**	**17.7**
Other tax receivables (excluding income taxes)	11.9	15.9
Sundry current assets	11.1	12.2
Deferred income	5.9	5.4
Other current assets	**28.9**	**33.5**

The receivables shown under other current financial instruments are measured at fair value through profit or loss. Specific risks are taken into account by appropriate allowances. The receivables from reimbursements are not reimbursements made by shareholders. The majority of other financial receivables relate to retained amounts in connection with factoring contracts in the Switch Systems business unit totaling €0.6 million (previous year: €4.1 million) and in the Rail Services business unit amounting to €1.7 million (previous year: €0.9 million). The receivables represent claims against factoring banks. The nominal value of these receivables is equivalent to their fair value because they are due in the near future. Other financial receivables were not the subject of any impairment.

The balances and development of allowances are presented below:

Development of allowances

€ mill.	2022	2021
Balance as of January 1	**0.0**	**1.4**
Additions	0.0	0.0
Releases	0.0	0.0
Utilizations	0.0	(1.4)
Currency translation differences	0.0	0.0
Balance as of December 31	**0.0**	**0.0**

For the reconciliation of the IFRS 9 measurement categories, see page 160 et seq., “Additional information on financial instruments”. Other tax receivables and miscellaneous current assets are measured at amortized cost.

(21) Short-term securities

This line item presents funds invested in short-term fixed-income securities for which both interest payments and sales come into account.

These are reported at fair value; changes in value are recognized directly in other equity. For the reconciliation of the IFRS 9 measurement categories, see “Additional information on financial instruments” on page 160 et seq.

(22) Cash and cash equivalents

Cash comprises cash on hand and in the bank. Cash equivalents comprise any financial instruments, including checks, with a maximum residual term of three months from the time of acquisition that can be readily converted into cash. Cash and cash equivalents are carried at their nominal value.

(23) Equity/capital management

For the statement of changes in equity, see page 123. Vossloh's capital management strategy is primarily geared towards raising enterprise value on a sustainable basis by making a positive contribution to its value added.

Secondary to this, the aim is also to safeguard liquidity at all times as well as to ensure that the Vossloh Group's equity ratio is adequate in order to ensure the ability of the company to operate as a going concern. The optimization of the capital structure contributes as much to this as the efficient management of cash inflows and outflows from financing activities and effective risk management.

Vossloh AG observes all statutory regulations within the scope of its capital management activities. It is not subject to any capital requirements imposed by the Articles of Incorporation. No special capital terms are used. Through its dividend policy, the Vossloh Group aims to pay out dividends on a sustainable basis if so permitted by the economic situation and approved by the corporate bodies. The decision on the amount of the annual dividend is made on a year-by-year basis.

(23.1) Capital stock

As in the previous year, Vossloh AG's capital stock amounts to €49,857,682.23 and is also divided into 17,564,180 no-par-value shares, unchanged from the previous year. Only shares of common stock are issued. One no-par-value share represents a notional interest of €2.84 in the capital stock.

(23.2) Additional paid-in capital

The additional paid-in capital includes the stock premium from shares issued by Vossloh AG. Furthermore, any differences arising from the purchase and selling prices for treasury shares from previous share buyback programs are recognized in the additional paid-in capital.

Employee bonus program

The employee bonus program 2022 offered employees of German Vossloh companies the option of acquiring either three Vossloh AG shares at no cost, or twelve shares at a discount of 50 percent of the issue price of €37.45 per share determined using the market price as of the share transfer date. The conditions in the previous year were basically identical, the issue price was €47.10. In the year under review, Vossloh Group employees were granted a total of 2,457 shares (previous year: 2,397 shares) at no cost under this program from both implementation alternatives. The expense to the Group for granting the shares was €76.7 thousand (previous year: €110.1 thousand) and was determined based on a price of €31.20 (previous year: €45.95) per share on the final day of the participating period.

The shares granted are each subject to a three-year holding period. They were acquired via the capital market; there are no other obligations from the program.

(23.3) Retained earnings and net income

The retained earnings contain the earnings of the companies included in the consolidated financial statements realized in the past which have not been distributed from the Group's perspective.

As in the previous year, a dividend of €1.00 per share was distributed in the year under review.

(23.4) Hybrid capital

A hybrid note with an issue volume of €150 million was placed in February 2021. Due to the terms of the note, this financial instrument is classified as equity in accordance with IAS 32 and presented accordingly. This note can only be canceled by Vossloh AG, not before February 23, 2026. The transaction costs incurred in connection with the issuance were recognized directly as a reduction in equity. The hybrid note has an interest rate of 4.0 percent. Interest payments may be suspended and delayed into the future in certain circumstances as decided by the company.

Change in other comprehensive income

€ mill.	Reserve for currency translation	Reserve for hedging transactions (cash flow hedges)	Reserve for the remeasurement of defined benefit plans	Other comprehensive income not including noncontrolling interests	Non-controlling interests	Other comprehensive income
	2022					
Reclassification of actuarial gains and losses from the previous year from defined benefit plans to retained earnings			(1.2)	**(1.2)**		**(1.2)**
Foreign subsidiaries – Currency translation differences	0.9			**0.9**	(0.9)	**0.0**
Cash flow hedges		2.9		**2.9**		**2.9**
Actuarial gains and losses from defined benefit plans			8.8	**8.8**	0.1	**8.9**
Effects from initial consolidation	0.2			**0.2**		**0.2**
Total	**1.1**	**2.9**	**7.6**	**11.6**	**(0.8)**	**10.8**
€ mill.	2021					
Reclassification of actuarial gains and losses from the previous year from defined benefit plans to retained earnings			(0.2)	**(0.2)**		**(0.2)**
Foreign subsidiaries – Currency translation differences	9.9			**9.9**	2.8	**12.7**
Cash flow hedges		0.0		**0.0**		**0.0**
Actuarial gains and losses from defined benefit plans			1.2	**1.2**		**1.2**
Effects from deconsolidation and transitional consolidation	1.4		0.0	**1.4**		**1.4**
Other effects	0.1	0.3	0.0	**0.4**		**0.4**
Total	**11.4**	**0.3**	**1.0**	**12.7**	**2.8**	**15.5**

(23.5) Accumulated other comprehensive income

Accumulated other comprehensive income contains the changes in equity without effect on profit or loss from the translation of financial statements of foreign subsidiaries, from the measurement of derivative financial instruments in connection with hedging transactions (cash flow hedges) and financial instruments classified at fair value through other comprehensive income as well as actuarial gains and losses relating to employee benefits.

During the year under review, actuarial gains of €1.2 million (previous year: €0.2 million) were reclassified from the reserve for the remeasurement of defined benefit plans to retained earnings.

(23.6) Noncontrolling interests

Noncontrolling interests of €21.1 million (previous year: €20.9 million) relate to minority shareholders of the Fastening Systems business unit; another €6.1 million (previous year: €7.7 million) relates to the Switch Systems business unit.

Development of pension provisions / provisions for other post-employment benefits

€ mill.	Present value of the obligation	Fair value of plan assets	Total
As of January 1, 2021	**46.4**	**(10.9)**	**35.5**
Changes from first-time consolidation	0.9	(0.3)	0.6
Service cost	1.1		1.1
Net interest expense/income	0.4	(0.1)	0.3
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		(0.3)	(0.3)
Gains/losses on changes in actuarial assumptions	(1.4)		(1.4)
Experience-related assumptions	(0.3)		(0.3)
Benefits paid	(1.7)	0.6	(1.1)
Other changes	0.1	(0.1)	0.0
Currency translation differences	0.1		0.1
As of December 31, 2021	**45.6**	**(11.1)**	**34.5**
Service cost	1.1		1.1
Net interest expense/income	0.5	(0.1)	0.4
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		(0.3)	(0.3)
Gains/losses on changes in actuarial assumptions	(11.0)		(11.0)
Experience-related assumptions	(0.9)		(0.9)
Benefits paid	(1.8)	0.6	(1.2)
Other changes	(0.6)		(0.6)
Currency translation differences	0.0	(0.1)	(0.1)
As of December 31, 2022	**32.9**	**(11.0)**	**21.9**

(24) Pension provisions / provisions for other post-employment benefits

Vossloh AG and some subsidiaries have entered into pension obligations to former as well as current employees. Pension payments are subject to the relevant conditions and are made until the death of the beneficiary. These defined benefit obligations vary according to the economic situation and are, as a rule, based on service years, pensionable pay and position within Vossloh. The future pension payment obligations must be met by the subsidiaries in question (defined benefit plan).

Provisions for pensions are formed using the projected unit credit method in accordance with IAS 19. This method takes into account current capital market interest rates, likely increases to salaries and pensions in the future and expected employee turnover. Accounting risks of the defined benefit plans result in particular from the development of the current capital market interest rates, as fluctuations in the interest rate level cause volatility of the present values of the obligations and thus also subject the Group equity to corresponding adjustments.

At the same time, there is also the risk that the market values of the plan assets do not increase at the same rate. Both effects could lead to a decrease in equity as a result of actuarial losses.

The plan assets, which are offset against the present value of the pension benefits, pertain primarily to pension liability insurance policies, which cover the major portion of the personal claims from the pension commitments. Each of these insurance contracts has been pledged to the individual beneficiary concerned, with the present value of the obligations being offset at fair value.

The pension provisions recognized are based on actuarial reports of independent actuaries using the mortality tables 2018 G from Klaus Heubeck.

The recognized pension provisions and the provisions for other post-employment benefits are derived as follows:

Calculation of the recognized pension provisions / provisions for other post-employment benefits

€ mill.	2022		2021	
	Pension provision	Provisions for other post-employment benefits	Pension provision	Provisions for other post-employment benefits
Present value of pension commitments covered by plan assets	12.0	6.0	15.6	9.8
Fair value of plan assets	(9.8)	(1.2)	(10.0)	(1.1)
Provision for pension benefits covered by plan assets	**2.2**	**4.8**	**5.6**	**8.7**
Present value of pension commitments not covered by plan assets	13.8	1.1	19.0	1.2
Provision for pension benefits not covered by plan assets	**13.8**	**1.1**	**19.0**	**1.2**
Recognized provision	**16.0**	**5.9**	**24.6**	**9.9**

The current service cost represents a portion of the personnel expense that is included in the functional costs. Interest expense is shown in the other interest expense. The actual return on plan assets amounted to 3.4 percent in the year under review (previous year: 3.9 percent).

A discount rate of 3.7 percent (previous year: 1.07 percent) was predominantly used in the year under review. This parameter is seen as significant; for this reason, a sensitivity analysis was performed due to possible changes. A decrease or increase in the discount rate by 25 basis points would have increased or decreased the defined benefit obligation (DBO) and therefore increased the provision by €1.0 million (previous year: €1.3 million) or decreased the provision by €1.0 million (previous year: €1.2 million). The average duration of the defined benefit pension plans is 15.5 years (previous year: 15.5 years). Other parameters include the anticipated staff turnover (6.0 percent), income trend (3.0 percent), pension trend (2.2 percent) and the anticipated increase in the contribution measurement threshold (2.5 percent) (all values are per annum and unchanged compared to the previous year, with the exception of the pension trend (previous year: 1.8 percent)).

Due to one activity being treated as a disposal group, the DBO decreased by €0.6 million in the reporting year.

In addition, voluntary or statutory defined contribution plans are in place at a number of Group companies. These Group companies are not normally under any obligation to make pensions-related payments other than their contractual contributions to an outside fund, which totaled €8.0 million in the fiscal year (previous year: €8.1 million).

The pension provisions include provisions for nonrecurring payments which are a legal requirement for a number of Group companies for employees who leave the company (both in the case of retirement as well as other situations). In accordance with IAS 19, such provisions are required to be treated as employee benefits and, due to their arrangement, classified as a defined benefit plan.

Assets have partially been set up in an external benefit fund ("plan assets") in order to finance the expected payments. The provisions recognized in the balance sheet result from the balance of the present value of the defined benefit obligation and the fair value of these plan assets.

When calculating the provision, a discount rate of 3.7 percent (previous year: negative 0.39 to positive 1.03 percent) and an expected increase in wage and salary payments of 3.0 or 4.0 percent (previous year: 2.0 or 4.0 percent) was assumed.

(25) Other provisions

Breakdown of other provisions

€ mill.	2022	2021
Personnel-related provisions	1.7	1.7
Warranty obligations and follow-up costs	2.7	2.1
Litigation risks and impending losses	3.8	4.7
Risks from M&A transactions	1.3	2.4
Sundry provisions	8.0	5.6
Other noncurrent provisions	**17.5**	**16.5**
Warranty obligations and follow-up costs	19.1	14.3
Litigation risks and impending losses	10.1	7.4
Risks from M&A transactions	2.9	7.8
Sundry provisions	20.6	26.8
Other current provisions	**52.7**	**56.3**
Other provisions	**70.2**	**72.8**

All provisions reported as current provisions have expected maturities of one year or less. All provisions reported as noncurrent provisions have expected remaining terms exceeding one year. The utilization dates are subject to significant uncertainty, especially with regard to risks from warranty obligations and litigation risks. The other provisions consider all obligations that are identifiable at the balance sheet date, based on past events, and are uncertain in terms of amount or timing. Provisions are recognized at amounts most likely to be utilized if the probability of a charge is higher than 50 percent. If the effect of discounting is material, noncurrent provisions are recognized at the present value of the uncertain obligations.

Change in other provisions

€ mill.	Opening balances as of 1/1/2022	Utilization	Release	Addition	Interest effects	Classified as held for sale	Currency translation differences	Closing balances as of 12/31/2022
Personnel-related provisions	1.7	(0.1)	(0.1)	0.2	0.0	(0.0)	(0.0)	1.7
Warranty obligations and follow-up costs	16.4	(1.4)	(2.8)	10.9	0.0	(1.2)	(0.1)	21.8
Litigation risks and impending losses	12.1	(2.1)	(1.4)	5.7	0.0	(0.1)	(0.3)	13.9
Risks from M&A transactions	10.2	0.0	(6.2)	0.0	0.0	0.0	0.2	4.2
Sundry provisions	32.4	(7.9)	(2.2)	6.5	0.1	(0.0)	(0.3)	28.6
Other provisions	**72.8**	**(11.5)**	**(12.7)**	**23.3**	**0.1**	**(1.3)**	**(0.5)**	**70.2**

The warranty obligations include both provisions for specific warranty cases and provisions recognized on the basis of past experience in the amount of the expected warranty claims from sales made. The accrued litigation risks and impending losses account for obligations under lawsuits and for loss risks from contracts in progress. As of the balance sheet date, provisions for impending losses on purchase obligations totaled €9.0 million (previous year: €8.8 million). Following the lapse of certain deadlines from the underlying sales agreements, provisions for several M&A transactions were released. The sundry provisions include provisions for restoration obligations, restructuring and possible claims for damages.

Liabilities

Liabilities according to remaining terms

€ mill.	2022	2021	2022	2021	2022	2021	2022	2021
Remaining term	≤ 1 year		1–5 years		> 5 years		Total	
Financial liabilities	49.2	69.2	234.8	189.9	32.6	32.5	316.6	291.6
Trade payables	167.3	149.2	1.3	0.8	0.4	0.2	169.0	150.2
Income tax liabilities	9.8	6.8	–	–	–	–	9.8	6.8
Other liabilities	126.6	130.2	8.7	3.2	1.7	–	137.0	133.4
Total	**352.9**	**355.4**	**244.8**	**193.9**	**34.7**	**32.7**	**632.4**	**582.0**

(26.1) Financial liabilities

Breakdown of financial liabilities

€ mill.	2022	2021
Other noncurrent liabilities to banks	209.4	164.3
Noncurrent liabilities from leases	30.0	32.4
Bank overdrafts	28.0	25.7
Noncurrent financial liabilities	**267.4**	**222.4**
Bank overdrafts	20.3	19.7
Current liabilities to banks	13.0	34.2
Current liabilities from leases	9.9	9.2
Interest payable to hybrid capital investors	5.1	5.1
Other interest payable	0.9	1.0
Current financial liabilities	**49.2**	**69.2**
Financial liabilities	**316.6**	**291.6**

Financial liabilities are principally measured at amortized cost. Current and noncurrent lease liabilities arise from leases which are recognized in accordance with IFRS 16. See the explanatory notes to section (11) on page 142 for how these line items are measured. Bank overdrafts are shown separately from current and noncurrent liabilities to banks in the table because they were allocated to cash and cash equivalents in the cash flow statement.

In July 2017, Schuldschein loans with terms of four years amounting to €135 million and seven years amounting to €115 million were issued by Vossloh AG. In the previous year, the four-year Schuldschein loans were repaid as scheduled with the inflow of funds from the hybrid note. The agreed interest rate is fixed at 1.763 percent for the seven-year maturities for an amount of €90 million, and variable at an amount of €25 million with a margin of 120 basis points above Euribor. A floor of 0.0 percent was applicable for the reference value. At the end of the previous year, a Schuldschein loan in the amount of €25 million with a term of seven years (until December 2028) and a fixed interest rate of 0.8 percent per year was issued. In January 2022, Vossloh AG used these funds to prematurely repay the floating-rate Schuldschein loan in the same amount with an original term until July 2024.

At the end of November 2017, Vossloh AG concluded a €150 million syndicated loan with eight banks. The financing agreement now has a term until November 2024 after exercising the option to extend it by one year respectively in November 2018 and 2019. In April 2019, the volume of the loan was increased by €80 million to €230 million. If necessary, it can be increased by up to a further €70 million during the term of the loan. The funds are available to the company in the form of a revolving line of credit that can be flexibly accessed. Compliance with a covenant in the form of the ratio of net financial debt to EBITDA was agreed in the syndicated loan. A breach of the agreed threshold of this key figure will allow the lending banks to terminate the agreement ahead of time. At the same time, the amount of the key figure in question determines the interest rate (basis points above Euribor). This is currently 1.00 percent. As of the balance sheet date, the credit line had been utilized in the amount of €91.6 million via cash, lines of credit available to subsidiaries, and guarantees (previous year: €42.0 million). Compliance with the covenant must be proven every six month and was affirmed as of the half-year and the reporting date. The existing liability stemming from this syndicated loan is reported under noncurrent financial liabilities in accordance with the terms of the contract.

Furthermore, in July 2021, Vossloh AG took out a loan of €20 million with DZ Bank AG with a term until July 2024 and a margin of 0.75 percent above the 3-month-Euribor. A floor of 0.0 percent is applicable for the reference value.

For the reconciliation of the IFRS 9 measurement categories, see "Additional information on financial instruments" on page 160 et seq.

(26.2) Trade payables and contract liabilities

Contract liabilities result from contracts where the revenue recognition takes place over a period of time and the advance payments made by customers and partial invoices are in excess of the cumulative performance from the processing of the respective contracts. For the detailed breakdown of these liabilities into gross receivables, prepayments received and partial invoices and other information, see Note (18) "Contract assets". No contract liabilities were recognized in the previous year or the year under review.

(26.3) Income tax liabilities

These pertain to the actual income taxes due to the tax authorities as of the balance sheet date, which are reported by the various Group companies.

(26.4) Other liabilities

Breakdown of other liabilities

€ mill.	2022	2021
Advance payments received	4.9	0.0
Deferred income	2.3	2.6
Social security and health insurance contributions	0.3	0.0
Personnel-related liabilities	0.0	0.1
Other	2.9	0.2
Noncurrent nonfinancial liabilities	**10.4**	**2.9**
Other noncurrent liabilities	**10.4**	**2.9**
Debtors with credit balances	0.6	0.7
Other liabilities to affiliated companies	0.3	0.0
Freestanding derivatives	0.2	3.9
Derivatives from cash flow hedges	0.1	0.3
Liabilities due to insurance companies	0.0	0.0
Current financial liabilities	**1.2**	**4.9**
Advance payments received	63.9	57.3
Personnel-related liabilities	31.9	30.3
VAT payable	7.1	6.7
Social security and health insurance contributions	5.1	3.9
Deferred income	5.0	11.7
Other nonincome taxes	4.7	4.8
Liabilities to employees	3.4	2.6
Other	4.3	8.3
Current nonfinancial liabilities	**125.4**	**125.6**
Other current liabilities	**126.6**	**130.5**

Upon initial recognition, financial instruments are stated at their fair value as of the trading date including direct transaction costs, if any, and thereafter carried at amortized cost unless their measurement at fair value is required.

The recognition of gains/losses from the measurement at fair value depends on whether the IFRS 9 hedge accounting criteria are met. The corresponding gains/losses from measuring derivatives in cash flow hedges at fair value are recognized directly in equity after considering deferred taxes.

Changes in the market value of freestanding derivatives are recognized in other operating income or other operating expenses.

The prepayments received, recognized at €68.8 million (previous year: €57.3 million) under other liabilities, consist of advance customer payments for projects where revenue recognition will not be carried out over a period of time.

In accordance with IAS 19, the current liabilities to employees are recognized at the undiscounted amount owed.

Notes to the segment report

The primary format for segment reporting is defined by Vossloh's internal organizational and reporting structures, which differentiates between the products and services offered by the Vossloh Group's business units. In accordance with IFRS 8, segment reporting to the Executive Board and Supervisory Board encompasses not only the divisions but also separately presents their business units.

The segment structure in the three divisions has not changed compared with the previous year. In addition to the Fastening Systems business unit, the Tie Technologies business unit is part of the Core Components division. Vossloh Switch Systems and Vossloh Rail Services continue to be the only business units of the Customized Modules and Lifecycle Solutions divisions, respectively.

The Core Components division comprises the Fastening Systems and Tie Technologies business units. Vossloh Fastening Systems is a leading manufacturer of rail fastening systems. The product lineup includes rail fasteners for every application: from regional transportation to heavy-haul and high-speed lines. Vossloh Tie Technologies, another business unit within this division, is the leading manufacturer of concrete ties in North America and Australia. In addition to concrete ties, switch ties, concrete elements for slab tracks and level crossing systems are manufactured at several plants in the USA and at various production sites in Australia, Mexico and Canada.

The Customized Modules division, respectively the Switch Systems business unit, is one of the leading switch manufacturers worldwide. The business unit equips rail networks with switches and crossings as well as with the related control and monitoring systems, which it also installs and maintains if required. Here, also, the lineup extends from light-rail to high-speed applications.

The Lifecycle Solutions division, respectively the Rail Services business unit, engage in activities such as rail trading, long-rail (un)loading at construction sites, welding new rails, reconditioning old rails, on-site welding, rail replacement, rail grinding/milling, rail inspection and construction site supervision. It also organizes and monitors just-in-time rail shipments to construction sites and ensures on-site availability of the approved (un)loading systems.

In the consolidation, all intrasegment and intersegment transactions are eliminated. This pertains primarily to the offsetting of intragroup income/expenses, the elimination of dividends between Group companies, the offsetting of shareholdings held by the respective parent companies against the equity of the subsidiaries attributable to them and the elimination of intragroup receivables/payables. The accounting methods applied by all segments are identical and conform to IFRS as adopted by the EU. Intersegment business is transacted at arm's length.

The segment information for each division and business unit is presented on page 124 et seq. The major noncash segment expenses include additions to provisions.

In the analysis of its results of operations in the combined management report, the Vossloh Group reports the pretax value added as a key performance indicator. The Group used a pretax WACC of 7.0 percent for this purpose, unchanged from the previous year.

A reconciliation of the segment result "value added" of the entire Group to the earnings before interest and taxes (EBIT) presented in the consolidated income statement is shown below:

Reconciliation of value added to EBIT

€ mill.	2022	2021
Value added	11.5	9.5
Cost of capital employed (WACC: 7.0%)	66.6	62.8
EBIT	**78.1**	**72.3**

Segment information by region is provided for noncurrent assets and external sales revenues in accordance with IFRS 8.33. The external sales revenues presented by region are based on the customer location. As sales revenues with unconsolidated subsidiaries are not taken into account in this overview of external sales revenues, the figures are not compatible with the overview of sales by region on page 40 of the combined management report.

Segment information by region

€ mill.	2022	2021	2022	2021
	External sales revenues		Noncurrent assets[1]	
Germany	101.7	94.6	221.4	211.6
France	89.7	73.1	178.8	186.0
Rest of Western Europe	87.7	71.2	41.6	41.9
Northern Europe	130.1	114.9	18.8	18.8
Southern Europe	101.9	81.3	11.4	12.2
Eastern Europe	78.9	62.7	16.5	11.9
Total of Europe	**590.0**	**497.8**	**488.5**	**482.4**
Americas	122.6	89.8	97.6	98.9
Asia	204.6	218.9	45.7	54.9
Africa	22.3	28.3	0.0	0.0
Australia	106.6	103.3	42.4	42.3
Total	**1,046.1**	**938.1**	**674.2**	**678.5**

[1] Without financial instruments and deferred tax assets.

Additional information on financial instruments

The recognition and measurement of financial instruments are based on the following measurement categories of IFRS 9:

- Financial assets at amortized cost
- Financial assets at fair value with the recognition of changes in value through profit or loss (FVTPL)
- Financial assets at fair value with the recognition of changes in value through other comprehensive income (FVOCI)

Vossloh's consolidated balance sheet includes both derivative and nonderivative financial instruments.

Nonderivative financial instruments

On the asset side, nonderivative financial instruments primarily comprise receivables, cash and cash equivalents and other financial assets.

On the liabilities side, they include financial liabilities. They are recognized in the consolidated balance sheet when Vossloh becomes a contractual party to the financial instrument.

Financial assets are derecognized according to IFRS 9 when the contractual right to payments from a financial asset expires or when the financial asset is transferred along with all material risks and opportunities. Financial liabilities are derecognized when the contractual obligation is settled, canceled or expires.

Derivative financial instruments

Derivative financial instruments whose value is derived from a basis value are, in particular, forward exchange contracts.

The Vossloh Group uses various derivative financial instruments. They are primarily used to hedge currency risks from firm foreign currency contractual obligations, future foreign currency receivables/payables, and interest rate risks arising from long-term financing.

Hedges of assets and liabilities reported in the balance sheet are recognized as freestanding derivatives. The offsetting changes in value of the underlying and hedging transactions, which relate to the hedged risk, are recognized in the consolidated financial statements. Any fair value changes (gains/losses) due to exchange rate volatility are recognized in the income statement. Currency exposures are not hedged based on planned items, but are generally hedged by means of a foreign currency forward directly after an order is received.

When accounting for cash flow hedges of pending or uncompleted transactions (executory contracts), changes in the derivative's fair value are recognized directly in equity after allowing for deferred taxes. Upon completion or recognition of the underlying transactions, the amounts previously recognized in equity are either recycled to the income statement or offset against the cost of purchased assets. A hedging relationship classified as effective in previous fiscal years was terminated in 2020 due to an amendment to the contract terms. The derivative that was originally designated as a hedging instrument has since been measured at fair value through profit or loss.

The nominal volume of the foreign currencies hedged by freestanding derivatives is divided as follows:

€ mill.	Currency	2022	2021
USA	USD	92.6	84.0
Australia	AUD	8.5	14.4
Sweden	SEK	8.3	–
Mexico	MXN	3.7	–
India	INR	3.1	–
Malaysia	MYR	1.6	–
Poland	PLN	1.0	1.3
China	CNY	0.3	2.7
Switzerland	CHF	–	0.8
		119.1	**103.2**

The table below shows the fair value of derivatives used for hedging currency and interest rate risks, as well as the hedged nominal volumes:

Derivative financial instruments			Fair value	Nominal value	Fair value	Nominal value
€ mill.			2022		2021	
Interest rate swaps	Maturity	up to 1 year	–	–	–	–
		up to 5 years	0.2	4.5	(0.1)	5.8
		over 5 years	4.0	60.0	–	–
			4.2	**64.5**	**(0.1)**	**5.8**
Foreign currency forwards	Maturity	up to 1 year	1.3	119.1	(3.9)	102.9
		up to 5 years	–	–	0.0	0.3
		over 5 years	–	–	–	–
			1.3	**119.1**	**(3.9)**	**103.2**
Total			**5.5**	**183.6**	**(4.0)**	**109.0**

Discounted estimated future cash flow methods are used to determine fair values of interest hedging instruments, currency hedging transactions and foreign currency forwards. The discount is based on current market rates, which match the maturity of the financial instruments.

The significant increase in long-term interest rate swaps was driven by the forward payer swaps concluded in the reporting year to hedge the interest level for the follow-up financing to be concluded in 2024 for the Schuldschein loans due at that time. These financial instruments are recognized in other noncurrent financial instruments in the balance sheet.

The carrying amounts of financial instruments, the assignment based on measurement category and the required disclosures on fair value according to IFRS 13 and their measurement sources according to IFRS 7 are presented in the following table:

Carrying amounts, measurement categories and fair values as of December 31, 2022

€ mill.	IFRS 9 carrying amounts according to balance sheet 12/31/2022	Measurement categories pursuant to IFRS 9			Fair values 12/31/2022
		Amortized cost	Fair value through OCI (FVOCI)	Fair value through profit or loss (FVTPL)	
Trade receivables	228.0	228.0	–	–	228.0
Securities	2.3	1.1	–	1.2	2.3
Other financial instruments and other assets	28.7	19.3	4.8	4.6	28.7
Cash and cash equivalents	76.8	76.5	–	0.3	76.8
Total financial assets	**335.8**	**324.9**	**4.8**	**6.1**	**335.8**
Financial liabilities	276.7	276.7	–	–	276.7
Trade payables	169.0	169.0	–	–	169.0
Other liabilities	114.3	114.1	0.0	0.2	114.3
Total financial liabilities	**560.0**	**559.8**	**0.0**	**0.2**	**560.0**

Carrying amounts, measurement categories and fair values as of December 31, 2021

€ mill.	IFRS 9 carrying amounts according to balance sheet 12/31/2021	Measurement categories pursuant to IFRS 9			Fair values 12/31/2021
		Amortized cost	Fair value through OCI (FVOCI)	Fair value through profit or loss (FVTPL)	
Trade receivables	214.5	214.5	–	–	214.5
Securities	1.0	0.2	–	0.8	1.0
Other financial instruments and other assets	21.7	18.0	0.6	3.1	21.7
Cash and cash equivalents	75.0	74.9	–	0.1	75.0
Total financial assets	**312.2**	**307.6**	**0.6**	**4.0**	**312.2**
Financial liabilities	250.0	250.0	–	–	250.0
Trade payables	150.2	150.2	–	–	150.2
Other liabilities	101.1	96.9	0.3	3.9	101.1
Total financial liabilities	**501.3**	**497.1**	**0.3**	**3.9**	**501.3**

Trade receivables, cash and cash equivalents and other receivables and assets primarily have short maturities. Their carrying amounts as of the reporting date, therefore, approximately correspond to the fair value.

Trade payables and contractual liabilities, as well as other liabilities, also generally have short remaining terms. Their carrying amounts, therefore, approximately correspond to the fair value. The fair value of noncurrent financial liabilities was calculated by discounting the payments of principal and interest to be expected from these liabilities in the future based on current market interest rates.

The financial liabilities carried at fair value mainly pertain to freestanding derivatives.

The table below shows the assignment of the financial assets and liabilities carried at fair value to the fair value hierarchy levels in accordance with IFRS 7 and IFRS 13. There were no reclassifications between the various levels of the fair value hierarchy either during the reporting year or the previous year.

Assignment to levels of the fair value hierarchy

	Determined based on market prices (Level 1)		Derived from market prices (Level 2)		Measurement not based on market prices (Level 3)	
€ mill.	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Financial assets measured at fair value			10.9	4.6		
Financial liabilities measured at fair value			0.2	4.2		
Total	**0.0**	**0.0**	**11.1**	**8.8**	**0.0**	**0.0**

The basis for the levels of the hierarchy for the measurement of fair value is the inputs applied. In Level 1, inputs are in the form of unadjusted quoted prices in active markets for identical assets or liabilities. Measurement models are normally used for inputs at both Level 2 and Level 3. While the inputs at Level 2 are observable on the market or can be derived, there is no observable market data at Level 3.

Vossloh AG enters into derivatives transactions for a framework agreement ("Framework agreement for financial futures contracts") which do not qualify for netting. The reason for this is that the Group has no legal claim to offset the amounts recognized at the present time. The right to offset can only be enforced when future events occur, such as if a bank loan is defaulted on or other credit events.

The following table presents the carrying amounts of the recognized financial instruments that are subject to the outlined agreements:

Offsetting possibilities for derivative financial assets and liabilities

€ mill.	2022	2021
Financial assets		
Recognized gross amounts of financial assets	5.8	0.2
Financial instruments that qualify for offsetting	0.0	0.0
Net balance sheet figures of financial assets	**5.8**	**0.2**
Offsettable on the basis of framework agreements	(0.1)	(0.2)
Total net value of financial assets	**5.7**	**0.0**
Financial liabilities		
Recognized gross amounts of financial liabilities	(0.3)	(4.2)
Financial instruments that qualify for offsetting	0.0	0.0
Net balance sheet figures of financial liabilities	**(0.3)**	**(4.2)**
Offsettable on the basis of framework agreements	0.1	0.2
Total net value of financial liabilities	**(0.2)**	**(4.0)**

Net gains/losses on financial instruments by measurement category

€ mill.	Assets at amortized cost	Assets at fair value through profit or loss (FVTPL)	Assets at fair value through other comprehensive income (FVOCI)	Liabilities at amortized cost	2022	2021
Net gains/losses from:						
Income from investments			0.3		0.3	0.1
Interest	0.0	0.2		(4.8)	(4.6)	(4.5)
Subsequent measurement						
from additions to valuation allowances	(0.5)				(0.5)	0.0
from reversals of valuation allowances	1.4				1.4	2.3
from currency translation	(2.2)				(2.2)	0.4
at fair value		(0.3)			(0.3)	0.0
Total	**(1.3)**	**(0.1)**	**0.3**	**(4.8)**	**(5.9)**	**(1.7)**

Interest is accounted for here within the net interest result, while the net gains and losses on disposal and currency translation are disclosed within other operating income or other operating expenses.

Gains from the remeasurement to fair value of securities held for trading and the write-down of financial instruments available for sale are included in the above table and recognized within the other financial result.

Financial risk management

The Vossloh Group's business operations are exposed to financial risks. These risks relate to liquidity, currency, interest and credit. The Group-wide management and limitation of the liquidity, currency and interest rate risks is handled by Treasury Management. Credit risks are monitored as part of general risk management.

Liquidity risks

Vossloh manages its liquidity risks (i.e. the risk that the Group is not able to meet its payment obligations at all times) through liquidity planning and a central cash management system. At the end of the reporting period, cash and cash equivalents as well as readily marketable securities of €79.1 million were at the Group's disposal, besides additional, unutilized credit facilities of €219.6 million to satisfy any future cash requirements. €138.5 million were related to free credit lines of Vossloh AG under the syndicated loan with a term until November 2024. The majority of the free credit lines of the subsidiaries, which totaled €81.3 million, had a duration of up to a year or were granted for an unlimited term. The table below shows the contractually agreed undiscounted payments of principal and interest for financial liabilities:

Maturities of interest and principal payments

	up to 1 year				1 to 5 years				more than 5 years			
€ mill.	2022		2021		2022		2021		2022		2021	
	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest	Repayment	Interest
Nonderivative financial liabilities	(28.9)	(10.9)	(49.5)	(8.5)	(206.8)	(2.5)	(164.2)	(4.1)	(32.6)	(0.2)	(32.4)	(0.4)
Derivative financial liabilities	(0.3)	0.0	(4.2)	0.0	0.0	0.0	0.0	(0.1)				
Derivative financial assets	1.8		0.2									

Currency risks

Currency risks arise from recognized noneuro assets and liabilities whose euro equivalent may be adversely affected by unfavorable exchange rates, and pending or uncompleted currency transactions whose future cash flows may show a negative trend depending on how foreign exchange rates develop. Significant operations-related currency risks Vossloh is exposed to originate from trade receivables and payables denominated in a noneuro currency, as well as from pending or uncompleted trade and purchasing transactions. Vossloh has issued binding instructions to centrally hedge against currency risks Group-wide through Treasury Management by using foreign currency forwards at matching maturities and amounts as micro hedges of the associated underlying transactions. The fixed exchange rates for the hedged underlying transactions counter any unfavorable effects of currency rate fluctuations on estimates and assets. As of the reporting date, Vossloh has designated currency derivatives with a nominal volume of €21.0 million in cash flow hedges; all other currency derivatives are freestanding. The translation of foreign separate financial statements into the Group currency, the euro, results in currency translation differences (translation risks) which are recognized directly in the balance sheet item "Accumulated other comprehensive income" (see the section "Currency translation" on page 130). Income, expenses and carrying values of companies that are not based in the eurozone are thus dependent on the respective euro exchange rate. Translation risks are not currently hedged because they do not directly affect cash flow. In addition, investments in foreign companies are typically long-term.

Interest rate risks

Interest rate risks mainly result from floating-rate short- and long-term loans raised for Group financing purposes, as well as from short-term funds invested at variable rates.

The risk of an unfavorable market rate trend and thus higher interest payments for floating-rate notes is contained by contracting interest rate swaps (see the glossary for these terms on page 197).

In connection with hedge accounting, such interest rate hedging transactions are accounted for as cash flow hedges. Interest rate floors embedded in hedging transactions are recognized in the income statement as fair value hedges. The nominal value of the interest rate swaps was €64.5 million as of the reporting date. The interest rate hedges have terms until mid-2026, mid-2029 and mid-2031.

The dollar offset method is used for assessing the effectiveness of the hedge. The interest rate hedge concluded in 2018 was already no longer effective in 2020. The cash flow hedge reserve of €(0.2) million at the time of dissolving the hedge relationship will be released on a straight-line basis in profit or loss over the remaining term, which runs until the middle of 2026.

The fair value of derivatives used for hedging against currency and interest rate risks, as well as the hedged nominal volumes, are detailed in the "Additional information on financial instruments" section on page 160 et seq. Taking into account the existing interest rate derivatives, 50 percent of the financial liabilities were taken up with fixed interest rates as of the reporting date, with 50 percent subject to a variable interest rate.

Sensitivity analysis

Given certain assumptions, sensitivity analyses put an approximate figure to the risk that exists if certain influential factors undergo changes. The following changes have been assumed with regard to interest-rate risk and exchange-rate risk:
- an increase in market interest rates of 1 percent or a reduction in market interest rates of 0.25 percent (parallel shift in the yield curve);
- a simultaneous appreciation or depreciation of the euro against all foreign currencies by 10 percent.

Financial instruments originally stipulated with variable interest rates as well as existing interest rate derivatives were taken into consideration in the determination of the interest-rate risk as of the reporting date. A market interest rate that was higher by 100 basis points related to the financial liabilities and receivables recognized at variable rates as of December 31, 2022, would have increased the financial result by €0.6 million due to the increased interest income. A market interest rate that was lower by 25 basis points would have reduced the net financial result by €0.1 million. Equity would have been €1.4 million higher at the higher market interest rate or €0.4 million lower at the lower market interest rate. This is based on the underlying assumption that the changed interest rate would have applied for an entire year.

As currency risks were almost fully hedged, the impact of a simultaneous 10 percent depreciation of the euro on the unhedged foreign currency positions was insignificant for the results of operations. The following table shows the effects of the sensitivity analysis of existing key foreign currency derivatives and foreign currency loans on other net interest result:

Sensitivity analysis of key foreign currency derivatives

	USD			
€ mill.	12/31/2022		12/31/2021	
	+ 10 %	– 10 %	+ 10 %	– 10 %
Net interest result	(0.4)	0.6	(0.2)	0.3
Equity	(0.3)	0.4	(0.1)	0.2

Credit risks

Credit risks are defined as the risk that counterparties fail to meet their financial obligations. The credit risk attached to the cash and cash equivalents invested by the Vossloh Group with banks and the short-term securities held by Group companies, as well as to hedging instruments contracted with banks, is minimized by selecting counterparties of prime standing only. As part of business operations, trade receivables and other receivables are potentially exposed to credit risk.

These credit risks are monitored by the risk management system and minimized by taking out credit insurance (for example, Euler Hermes). Specific default risks are taken into account through adequate allowances.

The balance of gross receivables (receivables before deduction of allowances) is broken down as follows in terms of operational credit risks:

Balance of gross current receivables

€ mill.	Receivables neither past due nor impaired	Receivables past due but not impaired	Impaired receivables	Gross balance of receivables
Trade receivables				
2022	159.5	69.1	9.4	238.0
2021	158.1	56.9	11.0	226.0
Others				
2022	44.4	0.0	0.0	44.4
2021	51.2	0.0	0.0	51.2

The analysis below breaks down the receivables past due:

Receivables past due

€ mill.	Up to 1 month	1 to 3 months	3 to 6 months	6 to 12 months	More than 12 months	Total
Trade receivables						
2022	22.4	15.1	8.2	6.6	16.8	**69.1**
2021	15.6	20.7	9.7	5.0	5.9	**56.9**
Others						
2022	–	–	–	–	0.0	**0.0**
2021	–	–	–	–	0.0	**0.0**

No specific credit risk arises from past due receivables since, given customer structure of the Vossloh Group, many debtors are government or other public sector agencies.

The maximum credit risk of all financial assets corresponds to their carrying amounts (see the overview on page 162).

IBOR reform

By December 31, 2021, the contractual terms previously referencing EONIA were switched to the new reference interest rate EURO short-term rate (€STR). The calculation method of the Euribor had already changed in 2019.

In 2021, the Vossloh Group entered into a new credit agreement with a link to USD-LIBOR, already including the agreements on the replacement of the reference interest rate. The alternative reference rate for the USD-LIBOR is the Secured Overnight Financing Rate (SOFR), however certain USD-LIBORs will only be discontinued after June 2023. This agreement automatically switches the instrument from USD-LIBOR to SOFR as soon as the respective USD-LIBOR is discontinued.

The central Treasury department continues to track developments in this area and assess agreements which are affected. It is also responsible for managing the transition to alternative rates and making the necessary amendments to agreements.

Other disclosures

Contingent liabilities

Contingent liabilities decreased by €6.3 million compared to December 31, 2021, going from €58.0 million to €51.7 million. €46.2 million thereof is attributable to contingent liabilities for the former Locomotives business unit sold as of May 31, 2020, while €0.3 million is attributable to contingent liabilities for the former Electrical Systems business unit sold as of January 31, 2017. For the remaining contingent liabilities from the two former business units, Vossloh AG has received irrevocable and unconditional guarantees at first request from first-class banks. The contingent liabilities of €20.8 million (previous year: €24.0 million) result from guarantees and relate entirely to the former business units. In the previous year, €2.7 million related to nonconsolidated affiliated companies. A total of €30.9 million (previous year: €34.0 million) of the contingent liabilities are attributable to letters of comfort; of this amount, €25.7 million related to the former business units and €5.2 million (previous year: €5.0 million) to nonconsolidated affiliated companies. The risk of a claim is considered unlikely for all of the listed contingent liabilities.

Obligations arising from orders due to the acquisition of intangible assets and property, plant and equipment (order commitments) totaled €23.2 million (previous year: €12.7 million).

Leasing

Agreements on the use of assets have frequently been concluded between the companies of the Vossloh Group and the respective owners. The subject of these agreements primarily relates to land and buildings, machinery and factory and office equipment, in particular company cars and IT equipment.

The resulting right-of-use assets are capitalized under property, plant and equipment pursuant to IFRS 16, while the present values of the payment obligations are recognized as financial liabilities. The option granted under IFRS 16.4 with regard to rights of use for intangible assets is exercised in such a way that rights of use arising from such contracts are not recognized on the balance sheet. The accounting methods applied for the rights of use and for the financial liability resulting from the lease are outlined in the explanatory notes to property, plant and equipment. There, the expense incurred for the depreciation of capitalized values in use was also shown. Interest expense from the compounding of lease liabilities is accounted for under the net interest result.

Expenses relating to short-term leases (remaining term of less than one year) and for low-value assets – the resulting rights of use are not capitalized in accordance with the option in IFRS 16.6 – are accounted for under other operating expense in the income statement. The same applies to variable lease payments, which are not to be taken into account when measuring the lease liability. Gains or losses from what are referred to as “sale-and-leaseback” transactions are accounted for depending on the conditions of the lease agreement to the extent that such transactions take place. There were no such transactions during the year under review, as in the previous year. Rental income stemming from subleases is accounted for as other operating income.

The following table provides a summary of the expenses and payments recognized in the income statement relating to leases. All payments in this regard relate to cash changes in lease liabilities and expenses recognized in the income statement related to leases which did not lead to right-of-use assets being recognized in the balance sheet.

€ mill.	2022	2021
Interest expense from the compounding of lease liabilities	1.1	1.1
Expenses from short-term leases	4.6	3.9
Expenses from the renting of low-value assets	0.4	0.4
Expenses from variable lease payments	0.3	0.2
Total lease payments	19.1	17.3

The following table shows the residual terms of the recognized leases:

Liabilities according to remaining terms

€ mill.	2022	2021	2022	2021	2022	2021	2022	2021
Remaining term	≤ 1 year		1 to 5 years		> 5 years		Total	
Liabilities from leases	9.9	9.2	22.9	26.9	7.1	5.5	39.9	41.6

Future payments that have not yet been taken into account when measuring liabilities from leases may result from variable lease payments, extension options that do not yet appear to be largely probable or not exercising termination options or from residual value guarantees that have not been taken into account. The resulting payments are insignificant in total. As of the reporting date, the Vossloh Group had no lease agreements that have already been concluded but for which utilization would not commence until a later date. There are no restrictions imposed by lease agreements or assurances about certain financial circumstances.

Disclosures regarding companies with noncontrolling interests

Significant Group companies with other (thus noncontrolling) shareholders:
1. Vossloh Fastening Systems (China) Co., Ltd., Kunshan, China
2. Vossloh (Anyang) Track Material Co., Ltd., Anyang, China
3. Vossloh Cogifer KIHN SA, Rumelange, Luxembourg
4. Vossloh Beekay Castings Ltd., New Delhi, India
5. Futrifer-Indústrias Ferroviárias SA, Lisbon, Portugal

Re 1: 32 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest.

In the year under review, €6.5 million (previous year: €7.6 million) of the company's net income was attributable to these shareholders. As of December 31, 2022, the share of equity attributable to shareholders with a noncontrolling interest was €13.0 million (previous year: €15.0 million).

Significant financial information for Vossloh Fastening Systems (China) Co., Ltd., Kunshan, China

€ mill.	2022	2021
Noncurrent assets	11.4	11.9
Current assets	77.1	72.3
Noncurrent liabilities	6.7	8.4
Current liabilities	41.2	28.9
Sales revenues	102.9	104.3
Value added	23.5	27.7
Total comprehensive income	19.2	27.6
Cash flow	0.3	(0.4)
Dividends to shareholders	25.6	12.6

Re 2: 49 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest.

In the year under review, €1.0 million (previous year: €(0.1) million) of the company's net income was attributable to these shareholders. As of December 31, 2022, the share of equity attributable to shareholders with a noncontrolling interest was €8.1 million (previous year: €7.5 million).

Significant financial information for Vossloh (Anyang) Track Material Co., Ltd., Anyang, China

€ mill.	2022	2021
Noncurrent assets	35.0	37.6
Current assets	16.9	14.8
Noncurrent liabilities	7.6	6.5
Current liabilities	15.6	18.6
Sales revenues	38.5	28.0
Value added	0.2	(2.4)
Total comprehensive income	1.4	2.4
Cash flow	1.1	(0.1)
Dividends to shareholders	0.0	0.0

Re 3: 10.79 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest.

In the year under review, €0.3 million (previous year: €0.2 million) of the company's net income was attributable to these shareholders. As of December 31, 2022, the share of equity attributable to shareholders with a noncontrolling interest was €2.0 million (previous year: €1.9 million).

Significant financial information for Vossloh Cogifer KIHN SA, Rumelange, Luxembourg

€ mill.	2022	2021
Noncurrent assets	15.3	14.7
Current assets	31.4	25.2
Noncurrent liabilities	0.4	0.3
Current liabilities	29.0	23.7
Sales revenues	50.7	36.7
Value added	3.1	1.9
Total comprehensive income	2.8	1.5
Cash flow	(0.4)	1.0
Dividends to shareholders	1.6	0.6

Re 4: 41.52 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest.

In the year under review, €0.1 million (previous year: €0.2 million) of the company's net income was attributable to these shareholders. As of December 31, 2022, the share of equity attributable to shareholders with a noncontrolling interest was €3.7 million (previous year: €3.8 million).

Significant financial information for Vossloh Beekay Castings Ltd., New Delhi, India

€ mill.	2022	2021
Noncurrent assets	7.0	7.5
Current assets	7.5	10.4
Noncurrent liabilities	0.4	0.4
Current liabilities	2.7	5.7
Sales revenues	11.2	10.4
Value added	(0.3)	(0.2)
Total comprehensive income	(0.2)	2.4
Cash flow	0.4	0.2
Dividends to shareholders	0.2	0.2

Re 5: 39 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest.

In the year under review, € 0.5 million (previous year: €0.0 million) of the company's net income was attributable to these shareholders. As of December 31, 2022, the share of equity attributable to shareholders with a noncontrolling interest was €2.1 million (previous year: €2.1 million).

Significant financial information for Futrifer-Indústrias Ferroviárias SA, Lisbon, Portugal

€ mill.	2022	2021
Noncurrent assets	10.6	11.3
Current assets	11.6	8.4
Noncurrent liabilities	1.8	0.5
Current liabilities	6.3	5.1
Sales revenues	18.4	3.5
Value added	0.7	(0.2)
Total comprehensive income	1.2	(0.1)
Cash flow	(1.0)	0.1
Dividends to shareholders	1.3	0.0

Where shareholders of other Group companies hold noncontrolling interests, these interests were insignificant both individually and cumulatively.

Related party transactions

Vossloh AG is the ultimate controlling entity of the Vossloh Group. The consolidated companies of the Vossloh Group transact normal business with unconsolidated affiliated companies and associated companies. Resulting transactions were executed at arm's length basis.

Related unconsolidated companies and associated companies are disclosed in the list of shareholdings on page 174 et seq.

Individuals among the Vossloh Group's related parties are the members of the Executive and Supervisory Boards.

Up to the time of his decease on February 23, 2021, Mr. Heinz Hermann Thiele was in a position to exert a significant influence on the Vossloh AG through KB Holding GmbH which held majority stake. Since then, his heir Mrs. Nadia Thiele and executor of his will Mr. Robin Brühmüller are in a position to control Vossloh AG via the majority shareholder, KB Holding GmbH. They also control the companies of the Knorr-Bremse Group indirectly. They are accordingly treated as related parties. Transactions with companies of the Knorr-Bremse Group in the fiscal year resulted in purchases of materials in the amount of €0.1 million (previous year: €0.1 million), sales revenues in the amount of €0.2 million (previous year: €0.0 million) as well as open receivables and advance payments as of December 31, 2022 in the amount of €0.0 million (previous year: €0.0 million) and trade payables of €0.0 million (previous year: €0.0 million).

The table below shows the breakdown of transactions with related parties. These were conducted almost exclusively with unconsolidated subsidiaries and reflected in segment reporting as internal sales revenues and in the consolidated balance sheet as receivables/payables due from or to affiliated companies, as well as transactions with associated companies. No transactions with related individuals took place.

€ mill.	2022	2021
Sale or purchase of goods		
Sales revenues from the sale of finished and unfinished goods	9.9	13.2
Cost of materials from the purchase of finished and unfinished goods	26.5	19.1
Trade receivables	1.6	5.4
Trade payables	6.9	4.3
Sale or purchase of other assets		
Receivables from the sale of other assets	0.5	0.5
Services rendered or received		
Income from services rendered	0.8	0.5
Expenses for services received	0.7	0.3
Licenses		
License income	0.2	0.2
License expenses	1.2	1.6
Financing		
Interest income from financial loans granted	0.0	0.3
Interest expense from financial loans received	0.0	0.0
Receivables on financial loans granted	0.1	0.9
Provision of guarantees and collateral		
Provision of guarantees	0.0	2.7
Provision of other collateral	0.0	0.0

Payments to related parties

	Short-term benefits due		Retirement benefit entitlements (service cost)		Shared-based remuneration		Total	
€	2022	2021	2022	2021	2022	2021	2022	2021
Executive Board of Vossloh AG	2,927,771	2,835,865	194,782	313,555	1,665,200	1,724,604	4,787,753	4,874,024
Supervisory Board of Vossloh AG	420,000	420,000	–	–	–	–	420,000	420,000

The short-term benefits due for the Executive Board comprised the fixed and annual variable remuneration. The target achievement criteria for the multiyear bonuses of the Executive Board members mainly relate to the absolute and relative performance of the share price of the Vossloh share. Another component of the multiyear bonus falls under the provisions of IAS 19, also shown in the table above in the "Share-based remuneration" column. The reporting of the multiyear bonus as a whole is thus in accordance with IFRS 2. For absolute performance, certain share increase rates over the respective period of the multiyear bonus are contractually defined as target figures. For relative performance, the price performance is compared with that of a weighted index comprised of DAX, MDAX and SDAX. Over- or under-performance then leads to a specific target achievement. The carrying amount of the Group's liabilities recognized for the multiyear bonus came to €3.6 million as of the balance sheet date (previous year: €2.3 million).

The total remuneration of the Executive Board members pursuant to Section 314 HGB is €3,952,441 (previous year: €4,102,574). Pension provisions for the CEO come to €1.7 million (previous year: €2.5 million).

Remuneration to former Executive Board members of Vossloh AG and their surviving dependents

The total remuneration of the former members of the Executive Board and members of the management as well as their surviving dependents remained unchanged from the previous year at €1,183,658. This related entirely to pension payments. Current pension payments are subject to adjustment in relation to the collective pay trend in the metal and electrical industries of North Rhine-Westphalia. Pension obligations to former members of the Executive Board and members of the management, as well as their relatives amounted to €20,078,847 (previous year: €26,661,450). Employer pension liability insurance policies totaling €9,812,242 (previous year: €9,983,006) are pledged in each beneficiary's favor. The remaining amount of these pension obligations is covered by provisions.

Auditor fees

In the year under review, the fees for the auditor of the consolidated financial statements totaled €0.7 million. At €0.6 million, these relate mainly to attestation services, and include fees for the audit of the consolidated financial statements, the financial statements of Vossloh AG and its German subsidiaries, and audits in connection with interim financial statements. Other attestation services of €0.1 million were provided in the area of sustainability reporting, the determination of subsequent effects from acquisitions and board remuneration.

German Corporate Governance Code

In November 2022, the Executive and Supervisory Boards issued the Declaration of Conformity pursuant to Section 161 of the German Stock Corporation Act (AktG), and made it permanently available to shareholders on Vossloh's website at www.vossloh.com/en/investor-relations/corporate-governance/declaration-of-conformity.

Group companies and investees

Pursuant to Section 313 (2) HGB, details of the Vossloh Group's shareholdings are listed below:

List of shareholdings

	€ mill.	Footnote	Shareholding in %	at	Consolidation[1]	Equity[2]	Result after taxes[2]
(1)	**Vossloh Aktiengesellschaft, Werdohl**				(k)		
(2)	Vossloh International GmbH, Werdohl		100.00	(1)	(k)		
(3)	Vossloh US Holdings, Inc., Wilmington, USA		100.00	(2)	(k)		
(4)	Vossloh Australia Pty. Ltd., Sydney, Australia		100.00	(1)	(k)		
	Core Components division						
	Fastening Systems business unit						
(5)	Vossloh Fastening Systems GmbH, Werdohl	3	100.00	(1)	(k)		
(6)	Vossloh Tehnica Feroviara SRL, Bucharest, Romania		100.00	(5)	(n)	0.2	0.0
(7)	Vossloh Drazni Technika s.r.o., Prague, Czech Republic	4	100.00	(5)	(k)		
(8)	Vossloh Sistemi S.r.l., Cesena, Italy		100.00	(5)	(k)		
(9)	Vossloh Skamo Sp.z o.o., Nowe Skalmierzyce, Poland		100.00	(5)	(k)		
(10)	FÉDER-7 Rugógyártó Kft., Sárkeresztes, Hungary		100.00	(5)	(n)	0.3	0.0
(11)	Vossloh Fastening Systems America Corporation, McGregor, USA		100.00	(3)	(k)		
(12)	Vossloh Fastening Systems (China) Co., Ltd., Kunshan, China		68.00	(5)	(k)		
(13)	Vossloh-Werke International GmbH, Werdohl		100.00	(5)	(k)		
(14)	Beijing China-Railway Vossloh Technology Co., Ltd., Beijing, China		49.00	(5)	(n)	2.9	1.2
(15)	Vossloh Fastening Systems Southern Africa Proprietary Ltd., Cape Town, South Africa		100.00	(74)	(n)	(0.1)	0.0
(16)	TOO Vossloh Fastening Systems (Kazakhstan), Kapshagay, Kazakhstan		50.00	(13)	(e)		
(17)	Suzhou Vossloh Track Systems Co., Ltd., Suzhou, China		100.00	(13)	(k)		
(18)	AO Vossloh Fastening Systems RUS, Engels, Russia		50.00	(5)	(e)		
(19)	Vossloh Fastening Systems Australia Pty. Ltd., Sydney, Australia		100.00	(4)	(k)		
(20)	OOO Vossloh Bahn- und Verkehrstechnik, Moscow, Russia		99.00/1.00	(2)/(1)	(k)		
(21)	Vossloh Maschinenfabrik Deutschland GmbH, Werdohl		100.00	(5)	(n)	(1.8)	(0.4)
(22)	Vossloh Fastening Systems India Private Ltd., New Delhi, India	5	99.99/0.01	(5)/(13)	(k)		
(23)	Vossloh (Anyang) Track Material Co., Ltd., Anyang, China		51.00	(13)	(k)		
(24)	Kunshan Vossloh Railway Materials Trading Co., Ltd., Kunshan, China		100.00	(13)	(k)		
	Tie Technologies business unit						
(25)	Rocla International Holdings, Inc., Wilmington, USA		100.00	(3)	(k)		
(26)	Rocla Concrete Tie, Inc., Lakewood, USA		100.00	(25)	(k)		
(27)	RCTI de Mexico, S. de R. L. de C. V., Mexico City, Mexico		99.998/0.002	(26)/(3)	(k)		
(28)	RocBra Participacoes e Empreendimentos Ltda., São Paulo, Brazil	6	100.00	(25)	(n)	4.8	0.5
(29)	Cavan Rocbra Industria E Comercio De Pre Moldados De Concreto S/A, São Paulo, Brazil		20.00	(28)	(n)	25.3	2.8
(30)	Austrak Pty. Ltd., Brisbane, Australia		100.00	(4)	(k)		
(31)	Vossloh Tie Technologies Canada ULC, Vancouver, Canada		100.00	(26)	(k)		
	Customized Modules division						
	Switch Systems business unit						
(32)	Vossloh France SAS, Rueil-Malmaison, France		100.00	(1)	(k)		
(33)	Vossloh Cogifer SA, Rueil-Malmaison, France		100.00	(32)	(k)		
(34)	Jacquemard AVR SA, St. Jean Bonnefonds, France		100.00	(33)	(k)		
(35)	Vossloh Cogifer Finland Oy, Salo, Finland		100.00	(36)	(k)		
(36)	Vossloh Nordic Switch Systems AB, Ystad, Sweden		100.00	(33)	(k)		
(37)	Vossloh Cogifer KIHN SA, Rumelange, Luxembourg		89.21	(33)	(k)		
(38)	Vossloh Laeis GmbH, Trier		100.00	(37)	(k)		
(39)	Futrifer-Indústrias Ferroviárias SA, Lisbon, Portugal		61.00	(33)	(k)		
(40)	Amurrio Ferrocarril y Equipos SA, Amurrio, Spain		50.00	(33)	(e)		
(41)	Montajes Ferroviarios S. L., Amurrio, Spain		100.00	(40)	(n)	0.2	0.0
(42)	Burbiola SA, Amurrio, Spain		50.00	(40)	(n)	1.8	0.1
(43)	Vossloh Cogifer UK Ltd., Scunthorpe, United Kingdom		100.00	(33)	(k)		
(44)	Vossloh Cogifer Italia S.r.l., Milan, Italy		100.00	(33)	(k)		
(45)	Vossloh Cogifer Polska Sp.z o.o., Bydgoszcz, Poland		97.01	(33)	(k)		

€ mill.		Footnote	Shareholding in %	at	Consoli-dation[1]	Equity[2]	Result after taxes[2]
(46)	ATO-Asia Turnouts Ltd., Bangkok, Thailand		51.00	(33)	(e)		
(47)	Vossloh Cogifer Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia		100.00	(33)	(k)		
(48)	VOSSLOH MIN SKRETNICE DOO ZA Proizvodnjui Montazu Skretnica i Opreme Nis, Niš, Serbia		100.00	(33)	(k)		
(49)	Vossloh Beekay Castings Ltd., New Delhi, India	5	58.48	(33)	(k)		
(50)	Vossloh Cogifer Turnouts India Private Ltd., Hyderabad, India	5	100.00	(33)	(k)		
(51)	Vossloh Cogifer Signalling India Private Ltd., Bangalore, India	5	100.00	(33)	(k)		
(52)	Vossloh Cogifer Australia Pty. Ltd., Castlemaine, Australia		100.00	(4)	(k)		
(53)	Vossloh Cogifer Kloos BV, Nieuw-Lekkerland, the Netherlands		100.00	(33)	(k)		
(54)	Wuhu China Railway Cogifer Track Co., Ltd., Wuhu, China		50.00	(33)	(e)		
(55)	Vossloh Cogifer Southern Africa Proprietary Ltd., Cape Town, South Africa		100.00	(74)	(n)	0.0	0.4
(56)	Ibrafer-Internacional Brasileira De Aparelhos Feroviarios Participacoes Ltda., Sorocaba, Brazil		19.00	(33)	(n)	(1.9)	(0.2)
(57)	Ibrafer MBM Ltda., Sorocaba, Brazil		97.38	(56)	(n)	2.0	(0.2)
(58)	Vossloh Infrastructure Systems LLC, Moscow, Russia		90.00/10.00	(37)/(48)	(n)	0.0	0.0
	Lifecycle Solutions division						
	Rail Services business unit						
(59)	Vossloh Rail Services GmbH, Hamburg	3	100.00	(1)	(k)		
(60)	Vossloh Rail Services Deutschland GmbH, Hamburg	3	100.00	(59)	(k)		
(61)	Vossloh Rail Inspection GmbH, Leipzig	3	100.00	(59)	(k)		
(62)	VOSSLOH Turkey Demiryolu Sistemleri Ltd. Şti., Istanbul, Turkey		100.00	(63)	(k)		
(63)	Vossloh Rail Services International GmbH, Hamburg	3	100.00	(59)	(k)		
(64)	Vossloh Rail Services Scandinavia AB, Örebro, Sweden		100.00	(63)	(k)		
(65)	Vossloh Rail Services North America Corporation, Denver, USA		100.00	(3)	(k)		
(66)	Beijing CRM-Vossloh Track Maintenance Technology Co., Ltd., Beijing, China		47.00	(63)	(e)		
(67)	Vossloh Rail Services Kunshan Co., Ltd., Kunshan, China		100.00	(63)	(k)		
(68)	Vossloh Rail Services Finland Oy, Kouvola, Finland		100.00	(63)	(k)		
(69)	Rhomberg Sersa Vossloh GmbH, Föhren		50.00	(59)	(e)		
(70)	Vossloh Services France SAS, Rueil-Malmaison, France		49.90/50.10	(33)/(63)	(k)		
(71)	Vossloh Rail Services Italia S.r.l., Cesena, Italy		100.00	(63)	(k)		
(72)	Vossloh ETS BV, Purmerend, the Netherlands		100.00	(63)	(k)		
(73)	Vossloh Rail Services Espana S.L., Madrid, Spain		100.00	(63)	(n)	0.0	0.0
	Other companies						
(74)	Vossloh Southern Africa Holdings Proprietary Ltd., Johannesburg, South Africa		100.00	(2)	(n)	0.0	0.0

[1] Fully consolidated companies are noted (k), those accounted for using the equity method (e) and unconsolidated companies (n). Exclusion from the scope of consolidation is based on immateriality with respect to net assets, financial position and results of operations.
[2] Foreign currency amounts in the case of equity are translated at the current rate (average exchange rate as of the balance sheet date) and result after tax are translated at the annual average exchange rate.
[3] Company claims exemption from preparing and publishing separate financial statements pursuant to Section 264 (3) or 264b HGB.
[4] Included in the consolidation for the first time in the reporting year.
[5] Differing fiscal year April 1 to March 31.
[6] Information on equity and result after taxes is based on the latest available financial statements.

Executive Board of Vossloh AG

Oliver Schuster, born 1964, Düsseldorf
Chief Executive Officer (CEO since 10/1/2019)
First appointment: 3/1/2014, appointed until: 2/28/2025
Group mandates:
- Vossloh Cogifer SA: Deputy Chairman of the Supervisory Board
- Vossloh Fastening Systems (China) Co., Ltd.: Chairman of the Administrative Board and legal representative of the company

Dr. Thomas Triska, born 1975, Balve
Chief Financial Officer (CFO)
First appointment: 11/1/2020, appointed until: 10/31/2023
External mandates:
- Wohnungsgesellschaft Werdohl GmbH: Member of the Supervisory Board

Group mandates:
- Vossloh Cogifer SA: Chairman of the Supervisory Board
- Vossloh International GmbH: Managing Director
- Vossloh France SAS: President

Jan Furnivall, born 1976, Meerbusch
Chief Operating Officer (COO)
First appointment: 11/1/2020, appointed until: 10/31/2023
Group mandates:
- Vossloh International GmbH: Managing Director
- Vossloh US Holdings, Inc.: Vice President

Prof. Dr. Rüdiger Grube[2,4], Chairman, Hamburg,
Managing Shareholder of Rüdiger Grube International Business Leadership GmbH
and former Chairman of the Executive Board of Deutsche Bahn AG
(Member of the Supervisory Board since 2/5/2020)
- Chairman of the Supervisory Board of Hamburger Hafen- und Logistik AG, Hamburg
- Non-Executive Member of the Administrative Board of Deufol SE, Hofheim (Wallau)
- Chairman of the Supervisory Board of ALSTOM Transportation Germany GmbH, Berlin
- Chairman of the Supervisory Board of Vantage Towers AG, Düsseldorf
- Member of the Supervisory Board of AVW Immobilien AG, Hamburg
- Member of the Supervisory Board of Meta Wolf AG, Kranichfeld

Ulrich M. Harnacke[2,3,4], Vice Chairman, Mönchengladbach, Independent Accountant,
Tax Advisor and Business Consultant (Member of the Supervisory Board since 5/20/2015)
- Member of the Shareholders' Committee of Thüga Holding GmbH & Co. KGaA, Munich, Member of the Supervisory Board of Thüga Aktiengesellschaft, Munich and Member of the Supervisory Board of CONTIGAS Deutsche Energie-AG, Munich
- Member of the Supervisory Board and Chairman of the Audit Committee of Brenntag SE, Essen
- Member of the Advisory Board of Zentis GmbH & Co. KG, Aachen

Dr. Roland Bosch[3,4,] Königstein/Taunus, Managing Director of WOLFF & MÜLLER Holding GmbH & Co. KG
(Member of the Supervisory Board since 5/27/2020)
- Chairman of the Supervisory Board of Danzer Holding AG, Dornbirn, Austria, President of the Administrative Board of Danzer AG, Ruggell (Liechtenstein)
- Chairman of the Supervisory Board of Erbud S.A., Warsaw (Poland)

Marcel Knüpfer[1], Zwenkau, Technical Administration Specialist and shift supervisor, Chairman of the
General Works Council of Vossloh Rail Services Deutschland GmbH and Member of the Group Works Council
(Member of the Supervisory Board since 6/1/2020)

Andreas Kretschmann[1,2,3], Neuenrade, Certified Social Security Professional, Chairman of the Group Works
Council and Member of the Works Council of Vossloh Fastening Systems GmbH
(Member of the Supervisory Board since 8/30/2017)

Dr. Bettina Volkens[2,4], Königstein/Taunus, self-employed Consultant and Member of various Supervisory Boards
(Member of the Supervisory Board since 5/27/2020)
- Member of the Supervisory Board of CompuGroup Medical SE & Co. KGaA, Koblenz
- Member of the Supervisory Board of Bilfinger SE, Mannheim
- Member of the Supervisory Board of Elektrobau Mulfingen GmbH, Mulfingen

[1] Employee representative
[2] Member of the Personnel Committee
[3] Member of the Audit Committee
[4] Member of the Nomination Committee

Proposed dividend

In accordance with German GAAP, the financial statements for the 2022 fiscal year show a net loss of €64,335,897.03. After including the profit carryforward of €110,754,683.56, net profit retained came to €46,418,786.53.

The Executive Board and Supervisory Board will propose to the Annual General Meeting that a dividend of €1.00 per share be paid out on the dividend-bearing capital stock of €49,857,682.23 and that the remaining amount of €28,854,606.53 be carried forward. The total dividend amount is €17,564,180.00.

Werdohl, Germany, March 7, 2023

Vossloh AG
The Executive Board

Oliver Schuster, Dr. Thomas Triska, Jan Furnivall

Responsibility statement

We confirm that, to the best of our knowledge and in accordance with applicable accounting principles, the consolidated financial statements present a true and fair view of the Group's net assets, financial position and results of operations, and the combined management report gives a true and fair view of the Group's performance and the overall position of the Group, as well as the significant risks and opportunities associated with the Group's expected development.

Werdohl, Germany, March 7, 2023

Vossloh AG
The Executive Board

Oliver Schuster, Dr. Thomas Triska, Jan Furnivall

Independent Auditor's report

To Vossloh Aktiengesellschaft, Werdohl/Germany

Report on the audit of the consolidated financial statements and of the combined management report

Audit Opinions

We have audited the consolidated financial statements of Vossloh Aktiengesellschaft, Werdohl/Germany, and its subsidiaries (the Group) which comprise the consolidated balance sheet as at 31 December 2022, the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of cash flows and the consolidated statement of changes in equity for the financial year from 1 January to 31 December 2022, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report for the parent and the group of Vossloh Aktiengesellschaft, Werdohl/Germany, for the financial year from 1 January to 31 December 2022. In accordance with the German legal requirements, we have not audited the content of the corporate governance statement pursuant to Section 289f and Section 315d German Commercial Code (HGB), including the further reporting on corporate governance included therein, which is referred to in the combined management report, nor the content of the consolidated nonfinancial statement pursuant to Section 315b HGB, which is included in the combined management report. In addition, we have not audited the content of the disclosures included in section "Adequateness and Effectiveness of the Risk Management System and the Internal Control System" of the management report that were marked "unaudited".

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2022 and of its financial performance for the financial year from 1 January to 31 December 2022, and
- the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of the statements referred to above as well as of the section "Adequateness and Effectiveness of the Risk Management System and the Internal Control System".

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Audit Opinions

We conducted our audit of the combined financial statements and of the combined management report in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014; referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). 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 Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2022. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In the following, we present the issue of recoverability of goodwill, which we have determined in the course of our audit to be a key audit matter.
Our presentation of this key audit matter has been structured as follows:
a) description (including reference to corresponding information in the consolidated financial statements)
b) auditor's response

Recoverability of goodwill

a) The consolidated financial statements of Vossloh Aktiengesellschaft disclose goodwill of mEUR 295.8 under the intangible assets balance sheet item, accounting for 21.6% of the consolidated balance sheet total.

   Within Vossloh Group, a distinction is made between four cash-generating units (CGUs), each of which is allocated goodwill. Goodwill is tested for impairment (impairment test) annually as at the balance sheet date or on related occasions. This impairment test is carried out by comparing the carrying amounts of the cash-generating units with their respective recoverable amounts in order to determine any need for impairment. The recoverable amount is determined on the basis of value in use taking into account the medium-term budget of the respective unit using expected discounted cash flows (discounted cash flow method).

   The cash flow forecasts are based on the group planning for a three-year detailed planning period that was approved by the executive board, acknowledged by the supervisory board and which is applicable at the time the impairment test is carried out. This also comprises expectations on the future development of the market and country-specific assumptions on the development of macro-economic indicators. Planning periods further in the future that account for a significant portion of value in use (period of perpetuity) are included in the value in use by rolling forward of cash flows taking into account a CGU-specific growth rate. Discounting is made using the weighted capital costs of the respective cash-generating unit.

   The result of this valuation is highly dependent on the executive board's assessment of the future cash flows and the discount rate used and, therefore, is subject to great uncertainty. Therefore, and due to the complexity of the valuation of this high-amount item, this matter was of particular significance in the scope of our audit.

The executive board's disclosures on goodwill are included in chapter 10 of the notes to the consolidated financial statements.

b) During our audit, we, among other things, obtained an understanding of the method applied in the impairment test, estimated the determination of the weighted capital costs and assessed the calculation method of the impairment test by consulting our valuation specialists. We examined the appropriateness of the future cash flows used in the valuation, among other things, by comparing them with the current planning prepared by the executive board and acknowledged by the supervisory board and by means of questioning the executive board regarding the material planning assumptions. Moreover, we reviewed the planning in a critical manner taking into account general and industry-specific market expectations. Together with the Parent's representatives in charge, we thoroughly discussed and obtained an understanding of any incremental adjustments of the detailed planning period and the rolling forward of cash flows for the period of perpetuity.

As already minor changes of the discount rate used may have material impacts on the amount of the determined recoverable amount, we dealt in detail with the parameters used in determining the discount rate used and obtained an understanding of the computation scheme. Furthermore, on account of the material significance of goodwill for assets and liabilities of the Group, we performed additional own sensitivity analyses in order to be able to assess any possible risk for impairment in the event of a potential change in a key valuation assumption. In addition, we audited the completeness and appropriateness of the disclosures in the notes to the consolidated financial statements required under IAS 36.

Other Information

The executive board and the supervisory board are responsible for the other information. The other information comprises:

- the report of the supervisory board,
- the remuneration report pursuant to Section 162 AktG,
- the corporate governance statement pursuant to Section 289f HGB and Section 315d HGB, including the further reporting on corporate governance included therein, which is referred to in the combined management report,
- the consolidated nonfinancial statement pursuant to Section 315b HGB, which is included in the combined management report,
- the unaudited content of the combined management report included in the section "Adequateness and Effectiveness of the Risk Management System and the Internal Control System" marked as "unaudited",
- the executive board's confirmation pursuant to Section 297 (2) sentence 4 HGB and Section 315 (1) sentence 5 HGB, respectively, regarding the consolidated financial statements and the combined management report, and
- all other parts of the annual report,
- but not the consolidated financial statements, not the audited content of the combined management report and not our auditor's report thereon.

The supervisory board is responsible for the report of the supervisory board. The executive board and the supervisory board are responsible for the statement according to Section 161 AktG concerning the German Corporate Governance Code, which is part of the corporate governance statement and which is referred to in the combined management report, as well as for the remuneration report. Otherwise the executive board is responsible for the other information.

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information identified above and, in doing so, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the audited content of the combined management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Board and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report
The executive board is responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive board is responsible for such internal control as it, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive board is responsible for assessing the Group's ability to continue as a going concern. It also has the responsibility for disclosing, as applicable, matters related to going concern. In addition, it is responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive board is responsible for the preparation of the combined management report that as a whole provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive board is responsible for such arrangements and measures (systems) as it has considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report
Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- evaluate the appropriateness of accounting policies used by the executive board and the reasonableness of estimates made by the executive board and related disclosures.
- conclude on the appropriateness of the executive board'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 combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRS as adopted by the EU and with the additional requirements of German commercial law pursuant to Section 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- perform audit procedures on the prospective information presented by the executive board in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive board as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the actions taken or safeguards applied to eliminate independence threats.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the current period and are therefore the key audit matters. We describe these matters in the auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the Audit of the Electronic Reproductions of the Consolidated Financial Statements and of the Combined Management Report Prepared for Publication Pursuant to Section 317 (3a) HGB

Audit Opinion

We have performed an audit in accordance with Section 317 (3a) HGB to obtain reasonable assurance whether the electronic reproductions of the consolidated financial statements and of the combined management report (hereinafter referred to as "ESEF documents") prepared for publication, contained in the file, which has the SHA-256 value bf608389ee7af111264c9b8c478cd4fa9a59a53cf9fd481438951a3518b029bc meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB ("ESEF format"). In accordance with the German legal requirements, this audit only covers the conversion of the information contained in the consolidated financial statements and the combined management report into the ESEF format, and therefore covers neither the information contained in these electronic reproductions nor any other information contained in the file identified above.

In our opinion, the electronic reproductions of the consolidated financial statements and of the combined management report prepared for publication contained in the file identified above meet, in all material respects, the requirements for the electronic reporting format pursuant to Section 328 (1) HGB. Beyond this audit opinion and our audit opinions on the accompanying consolidated financial statements and on the accompanying combined management report for the financial year from 1 January to 31 December 2022 contained in the "Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report" above, we do not express any assurance opinion on the information contained within these electronic reproductions or on any other information contained in the file identified above.

Basis for the Audit Opinion

We conducted our audit of the electronic reproductions of the consolidated financial statements and of the combined management report contained in the file identified above in accordance with Section 317 (3a) HGB and on the basis of the IDW Auditing Standard: Audit of the Electronic Reproductions of Financial Statements and Management Reports Prepared for Publication Purposes Pursuant to Section 317 (3a) HGB (IDW AuS 410 (06.2022)). Our responsibilities in this context are further described in the "Group Auditor's Responsibilities for the Audit of the ESEF Documents" section. Our audit firm has applied the IDW Standard on Quality Management: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the Executive Board and the Supervisory Board for the ESEF Documents

The executive board of the parent is responsible for the preparation of the ESEF documents based on the electronic files of the consolidated financial statements and of the combined management report according to Section 328 (1) sentence 4 no. 1 HGB and for the tagging of the consolidated financial statements according to Section 328 (1) sentence 4 no. 2 HGB.

In addition, the executive board of the parent is responsible for such internal controls that it has considered necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements for the electronic reporting format pursuant to Section 328 (1) HGB.

The supervisory board is responsible for overseeing the process for preparing the ESEF documents as part of the financial reporting process.

Group Auditor's Responsibilities for the Audit of the ESEF Documents
Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal control relevant to the audit on the ESEF documents in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, in the version in force at the balance sheet date, on the technical specification for this electronic file.
- evaluate whether the ESEF files enable a XHTML copy of the audited consolidated financial statements and of the audited combined management report whose content is identical with these documents.
- evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the balance sheet date, enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further Information pursuant to Article 10 of the EU Audit Regulation
We were elected as group auditor by the general meeting on 18 May 2022. We were engaged by the supervisory board on 12 September 2022. We have been the group auditor of Vossloh Aktiengesellschaft, Werdohl/Germany, without interruption since the financial year 2019.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

OTHER MATTER – USE OF THE AUDITOR'S REPORT
Our auditor's report must always be read together with the audited consolidated financial statements and the audited combined management report as well as with the audited ESEF documents. The consolidated financial statements and the combined management report converted into the ESEF format – including the versions to be submitted for inclusion in the Company Register – are merely electronic reproductions of the audited consolidated financial statements and the audited combined management report and do not take their place. In particular, the ESEF report and our audit opinion contained therein are to be used solely together with the audited ESEF documents made available in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is René Kadlubowski.

Düsseldorf/Germany, 7 March 2023

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed:	Signed:
René Kadlubowski	Christian Siepe
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Remuneration report

Pursuant to Article 162 of the German Stock Corporation Act (AktG), this report discloses the remuneration paid and owed by the company to all current and former members of the Executive and Supervisory Board in the 2022 fiscal year.

Executive Board remuneration

Remuneration system and principles of remuneration

The remuneration paid and owed to the members of the Executive Board in the 2022 fiscal year is based on the remuneration system that has been in force since January 1, 2021 and was approved by the Annual General Meeting on May 19, 2021 (the „remuneration system"). The remuneration system was applied to the remuneration of all applicable Executive Board members in the 2022 fiscal year without exception. The remuneration system does not apply to the employment contract of the CEO, which was concluded in 2019. However, certain components of the remuneration system apply to the employment relationship between the company and the CEO.

The remuneration for Executive Board members of Vossloh AG consists of fixed and variable components.

The fixed, non-performance-related remuneration component consists of the **basic remuneration** and **fringe benefits** (such as, in particular, the provision of a company car and allowances for health, accident and luggage insurance) and – for the current CEO only – retirement benefit commitments in the form of pension payments upon reaching the retirement age of 63.

The performance-related component includes short-term variable remuneration ("annual bonus") and long-term variable remuneration ("multiyear bonus"). The **annual bonus** paid is dependent on the extent to which short-term performance targets are achieved. The relevant performance targets in the 2022 fiscal year were Group EBIT, Group sales and the average capital employed. The **multiyear bonus** is contingent on long-term performance targets being achieved over an assessment period of three years (or two years for the incumbent CEO due to the previous contract which is not subject to the current remuneration system). The performance targets for the multiyear bonus for the 2022 fiscal year are the return on capital employed (ROCE) and the absolute and the relative performance of the Vossloh share in comparison to the weighted average performance of the DAX, MDAX and SDAX over the assessment period of fiscal years 2022 to 2024 (or 2022 to 2023 for the current CEO). The performance criteria for the remuneration paid and owed in the 2022 fiscal year are broken down into performance targets, target values, weightings and target achievement levels and disclosed below for each Executive Board member in the „Executive Board remuneration in the 2022 fiscal year" section.

In the event that the employment contract of an Executive Board member is subject to the remuneration system, the total remuneration of that Executive Board member will be limited to the **maximum remuneration** stipulated in their individual contract. The maximum remuneration specified by the Supervisory Board is €2,923,000 gross per annum for the CEO and €1,812,800 gross per annum for the other members of the Executive Board.

No use was made of the option provided for in the remuneration system to grant extra bonuses to members of the Executive Board in the 2022 fiscal year.

During the 2022 fiscal year, the Supervisory Board had no reason to make use of its power to withhold or reclaim variable remuneration components in certain justified cases („malus and clawback provisions"), in particular in the case of certain material breaches of duty or in the event of the consolidated financial statements containing incorrect information.

Executive Board remuneration in the 2022 fiscal year

Due to the fact that the remuneration report for the 2021 fiscal year was approved by the Annual General Meeting on May 18, 2022, there was no reason to question the implementation of the remuneration system or the reporting. As described below, the presentation of the remuneration paid and owed in the year under review should be aligned with the now established definition of the term.

The table below is based on the Draft Guidelines on the Standardized Presentation of the Remuneration Report and provides information about the benefits owed and granted to the members of the Executive Board in the 2022 fiscal year within the meaning of Section 162 (1) Sentence 1 AktG.

Remuneration paid and owed is shown in the remuneration report with regard to the annual and the multiyear bonuses for which the assessment period expired at the end of the year under review and which are due to be paid out in spring 2023 on the basis of the degree to which the relevant targets have been achieved. Variable remuneration components which have been earned but not yet paid out by the end of the year under review are recognized as remuneration owed. All remuneration components which were actually paid out during the year under review are recognized as remuneration paid, provided the same remuneration has not been recognized as remuneration owed in an earlier remuneration report – as is the case for the annual and multiyear bonuses. In the 2021 remuneration report, the company applied a different understanding of the term when determining the multiyear bonus and reported the contractually agreed multiyear bonus for the reporting year on the basis of preliminary estimates. This change was made to bring the company in line with now widespread market practice and make Vossloh more comparable with other companies. In addition, this prevents us from making disclosures on the basis of budget-based estimates which may be out of line with actual figures. For the sake of comparability, we have also determined the values for the previous year based on our current understanding of the term and disclosed them in the line item „2021 (new)“.

In accordance with this understanding of the term, the 2022 annual bonus of all members of the Executive Board and the 2021 multiyear bonus of the current CEO (whose old contract still provides for a two-year assessment period for the multiyear bonus, while the assessment period for the 2021 multiyear bonus is still ongoing for the other members of the Executive Board) have been allocated to „remuneration paid and owed“ in the 2022 fiscal year. These remuneration components will be paid out after the annual financial statements have been approved.

Provisions for pension benefits are shown separately in „Retirement Benefits“ rather than as paid and owed as no additions were made and none came due.

€		Fixed remuneration	Payments in kind	**Total basic remuneration**	Annual bonus	Multiyear bonus[1]	**Total variable remuneration**	**Total remuneration**	Remuneration in relation to total remuneration	
Remuneration paid and owed									Proportion basic remuneration	Proportion variable remuneration
Oliver Schuster CEO since 10/1/2019, member of the Executive Board since 3/1/2014	2021 (old)	550,000	26,149	**576,149**	638,314	649,404	**1,287,718**	**1,863,867**	31 %	69 %
	2021 (new)	550,000	26,149	**576,149**	638,314	589,508	**1,227,822**	**1,803,971**	32 %	68 %
	2022	550,000	25,943	**575,943**	678,324	714,000	**1,392,324**	**1,968,267**	29 %	71 %
Dr. Thomas Triska member of the Executive Board since 11/1/2020	2021 (old)	350,000	19,490	**369,490**	446,820	537,600	**984,420**	**1,353,910**	27 %	73 %
	2021 (new)	350,000	19,490	**369,490**	446,820	0	**446,820**	**816,310**	45 %	55 %
	2022	350,000	17,818	**367,818**	474,827	0	**474,827**	**842,645**	44 %	56 %
Jan Furnivall member of the Executive Board since 11/1/2020	2021 (old)	350,000	8,272	**358,272**	446,820	537,600	**984,420**	**1,342,692**	27 %	73 %
	2021 (new)	350,000	8,272	**358,272**	446,820	0	**446,820**	**805,092**	45 %	55 %
	2022	350,000	6,032	**356,032**	474,827	0	**474,827**	**830,859**	43 %	57 %

[1]The 2021 multiyear bonus is shown in the 2021 (old) lines of this column. In cases where the assessment periods are yet to finish, the figures are preliminary figures, which could change based on the extent to which targets are achieved by the end of the assessment period in question.

The remuneration of the Executive Board in the table above meets the aims of the remuneration system. The remuneration promotes the long-term development of the company by providing incentive for long-term and sustainable growth. The members of the Executive Board participate in the success of the company through the use of appropriate performance criteria and ambitious targets. The multiyear bonus makes up the majority of the variable remuneration if targets are achieved in full. The majority of the performance criteria for the multiyear bonus are tied to the performance of the Vossloh share, ensuring that the interests of Vossloh AG’s shareholders are represented.

The performance targets, their weightings and the target values for any share price-oriented performance targets of the multiyear bonus are agreed in the employment contract of each Executive Board member. The other values for the performance targets of the annual bonus and the multiyear bonus for the 2022 fiscal year were defined before the beginning of the fiscal year.

The target and threshold values as well as the extent to which targets were achieved in relation to the individual performance targets are provided in the following overview. With regard to the annual bonus for the 2022 fiscal year, the Supervisory Board made use of the option provided in the remuneration system and employment contracts to reduce or increase the target bonus for achieving all of the targets in full for the annual bonus under certain conditions. The target values set before the beginning of the fiscal year were not (subsequently) changed as part of this process. In the opinion of the Supervisory Board, the Executive Board guided the company brilliantly through an extraordinary set of circumstances and challenges in the previous fiscal year. Despite the challenging conditions, in particular the unforeseeable geopolitical developments and significant upheaval in the material, energy and logistics markets, the members of the Executive Board achieved all of their objectives and, in some cases, thoroughly exceeded them. The Supervisory Board exercised its discretion and recognized this achievement by multiplying the target bonus for the members of the Executive Board by a factor of 1.2.

		Applied performance criteria and type of remuneration required	Relative weighting of performance criteria in %	Thresholds for target achievement: 0 % target achievement, target missed by (in %)	Thresholds for target achievement: 170 % target achievement, target exceeded by (in %)	Determined performance	Extent to which target has been achieved in %
Performance criteria incl. target range for variable remuneration in 2022							
Oliver Schuster	Annual bonus	Group EBIT (€ million)	65 %	(26.3)	6,6	78,1	129
		Group sales (€ million)	20 %	(11.2)	4.5	1,046.1	245
		Average working capital (€ million)	15 %	19.9	(4.5)	218.1	55
	Multiyear bonus	Average ROCE (Return on Capital Employed) (%)	48 %	(22.3)	+ 13.4	8.2	120
		Absolute performance of the Vossloh share (€)	26 %	(6.9)	+4.7	41.7	14
		Relative performance of the Vossloh share (€)	26 %	(0.2)	0.2	41.7	3,476
Dr. Thomas Triska	Annual bonus	Group EBIT (€ million)	65 %	(26.3)	6.6	78.1	129
		Group sales (€ million)	20 %	(11.2)	4.5	1,046.1	245
		Average working capital (€ million)	15 %	19.9	(4.5)	218.1	55
	Multiyear bonus	Average ROCE (Return on Capital Employed) (%)	31 %				
		Absolute performance of the Vossloh share (€)	34 %				
		Relative performance of the Vossloh share (€)	34 %				
Jan Furnivall	Annual bonus	Group EBIT (€ million)	65 %	(26.3)	6.6	78.1	129
		Group sales (€ million)	20 %	(11.2)	4.5	1,046.1	245
		Average working capital (€ million)	15 %	19.9	(4.5)	218.1	55
	Multiyear bonus	Average ROCE (Return on Capital Employed) (%)	31 %				
		Absolute performance of the Vossloh share (€)	34 %				
		Relative performance of the Vossloh share (€)	34 %				

Former members of the Executive Board

Former member of the Executive Board of Vossloh AG Mr. Werner Andree received remuneration paid and owed in the 2022 fiscal year and in the previous year in accordance with Section 162 (1) Sentence 1 AktG in the form of a pension in the amount of €258,135 each year. As his remuneration is not dependent on the results of company operations, it is not included in the comparative presentation of changes in board compensation, the results of operations and remuneration for employees.

The old contract for the current CEO includes an entitlement to receive pension payments upon reaching 63 years of age. Depending on the years of service on the Executive Board, annual pension benefits after a minimum three-year Executive Board membership amount to 1 percent, or in the case of a first-time contract renewal 2 percent, up to a maximum of 40 percent of the pensionable annual basic remuneration. Upon the death of an active or former member of the Executive Board, the pension entitlement or the most recent pension paid to the surviving spouse is reduced to 60 percent.

Pension expenses

The present value of the pension entitlement and the addition in accordance with the requirements of German commercial law and the pension expense in accordance with IFRS are provided in the following table:

€		Pension entitlements in accordance with the requirements of German commercial law		
		Amount paid in for the fiscal year	Present value of pension obligation	Service costs in accordance with IFRS
Entitlements to defined retirement benefits				
Oliver Schuster Chairman of the Executive Board since 10/1/2019	2021	419,735	2,063,518	313,555
	2022	446,526	2,510,044	194,782

In the event of an agreed premature termination of the employment contract, the Executive Board contracts contain commitments to pay out their expected remuneration for the regular remaining term of the contract, unless the termination is based on a unilateral resignation by the Executive Board member without good cause or on a revocation of the appointment for a reason that also constitutes good cause for the termination of the employment relationship. However, the commitments are in any case limited to a maximum of two years' remuneration (severance payment cap). Variable remuneration already earned is paid out under the remuneration system in accordance with the originally agreed targets and comparison parameters and according to the due dates specified in the contract. No payment obligations are made in the event of an early termination of Executive Board duties due to a change of control.

Commitments in the event of premature termination of duties

Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is based on Article 17 of the company's Articles of Association and the remuneration system for the members of the Supervisory Board which was approved by the Annual General Meeting on May 19, 2021, which was applied without restriction in the 2022 fiscal year.

Remuneration of the Supervisory Board in 2022

In addition to reimbursement for their expenses and in line with recommendation G.18 of the GCGC, Supervisory Board members receive a fixed annual remuneration for duties performed of €40,000 (gross) to be paid after the conclusion of the fiscal year. The Supervisory Board Chairman receives three times and the vice-chairman one-and-a-half times the above fee. Membership in a committee is compensated by a premium of one quarter of the aforementioned remuneration amounts. The Audit Committee Chairman receives three times the additional Audit Committee membership fee. If the Supervisory Board Chairman is also a committee member, no additional fee is to be paid for his activities on the committee.

Due to the fact that the remuneration report for the 2021 fiscal year was approved by the Annual General Meeting on May 18, 2022, there was no reason to question the reporting.

The table below provides information about the remuneration owed and paid to the members of the Supervisory Board in the 2022 fiscal year within the meaning of Section 162 AktG.

	2022					2021				
	Fixed remuneration		Remuneration for activities on committees		Total	Fixed remuneration		Remuneration for activities on committees		Total
	€	%	€	%	€	€	%	€	%	€
Prof. Dr. Rüdiger Grube, Chairman	120,000	100	0	0	120,000	120,000	100	0	0	120,000
Ulrich M. Harnacke, Deputy Chairman	60,000	60	40,000	40	100,000	60,000	60	40,000	40	100,000
Dr. Roland Bosch	40,000	80	10,000	20	50,000	40,000	80	10,000	20	50,000
Dr. Bettina Volkens	40,000	80	10,000	20	50,000	40,000	80	10,000	20	50,000
Andreas Kretschmann	40,000	67	20,000	33	60,000	40,000	67	20,000	33	60,000
Marcel Knüpfer	40,000	100		0	40,000	40,000	100		0	40,000
Total	**340,000**		**80,000**		**420,000**	**340,000**		**80,000**		**420,000**

Comparative view of changes in board compensation, the results of operations and remuneration for employees

The table below provides a comparison between the change in the remuneration provided for the members of the Executive Board and Supervisory Board on the one hand and the change in the results of operations of Vossloh AG and the Vossloh Group and the average remuneration for employees.

%	2019 compared to 2018	2020 compared to 2019	2021 compared to 2020	2022 compared to 2021
Executive Board remuneration[1]				
Oliver Schuster (CEO)	27 %	42 %	13 %	9 %
Dr. Thomas Triska (CFO)			7 %	3 %
Jan Furnivall (COO)			7 %	3 %
Supervisory Board remuneration[2]				
Prof. Dr. Rüdiger Grube, Chairman of the Supervisory Board			0 %	0 %
Ulrich M. Harnacke, Deputy Chairman of the Supervisory Board	7 %	–8 %	–8 %	0 %
Dr. Roland Bosch			–17 %	0 %
Marcel Knüpfer			0 %	0 %
Andreas Kretschmann	0 %	29 %	16 %	0 %
Dr. Bettina Volkens			–17 %	0 %
Earnings development				
Net income/net loss for the financial year in accordance with HGB (Vossloh AG)	–1,689 %	16 %	115 %	–928 %
EBIT in accordance with IFRS (Vossloh Group)[3]	3 %	31 %	–1 %	8 %
Average remuneration for employees on an FTE basis				
Remuneration for employees[4]	26 %	–16 %	–1 %	2 %

[1] Determined on a pro rata basis in previous years when required.

[2] Determined on a pro rata basis in previous years when required.

[3] Includes adjusted figure for 2019. If the adjusted EBIT had been used, the change between 2019 and 2018 would have been (170 %) and 294 % when comparing 2020 to 2019.

[4] Wages and salaries in accordance with IFRS (excluding discontinued operations); number of employees on an FTE basis excluding the members of the Vossloh AG Executive Board.

The remuneration specified for the members of the Executive Board and Supervisory Board is equivalent to the remuneration paid and owed in the 2022 fiscal year within the meaning of Section 162 of the German Stock Corporation Act (AktG) and in line with how the company defines the term. The results of operations is based on the company's net income disclosed in the separate financial statements of Vossloh AG in accordance with Section 275 (2) No. 17 HGB and the EBIT of the Vossloh Group. Remuneration for employees is based on the average remuneration excluding incidentals for all employees of the Vossloh Group on an FTE basis, including managers/executives within the meaning of Section 5 (3) of the Works Constitution Act and temporary staff. Any remuneration received by an employee who is also a member of the Supervisory Board of Vossloh AG is not included. In order to ensure the comparability of disclosures related to the earnings trend and remuneration for employees, all employees working for a subsidiary reported as a discontinued operation in the consolidated financial statements for the relevant fiscal year are excluded.

Werdohl, March 7, 2023

Vossloh AG

The Executive Board	The Supervisory Board
Oliver Schuster, Dr. Thomas Triska, Jan Furnivall	Prof. Dr. Rüdiger Grube

Report of the independent auditor

To Vossloh Aktiengesellschaft, Werdohl/Germany

We have audited the accompanying remuneration report of Vossloh Aktiengesellschaft, Werdohl/Germany, ("the Company") for the financial year from 1 January to 31 December 2022, including the related disclosures, which has been prepared to comply with Section 162 German Stock Corporation Act (AktG).

Responsibilities of the Executive Directors and of the Supervisory Board
The executive directors and the supervisory board of Vossloh Aktiengesellschaft, Werdohl/Germany, are responsible for the preparation of the remuneration report, including the related disclosures, that complies with the requirements of Section 162 AktG. The executive directors and the supervisory board are also responsible for such internal control as they consider necessary to enable the preparation of a remuneration report, including the related disclosures, 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 compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). These Standards require that we fulfil the professional responsibilities and that we plan and perform the audit so that we obtain reasonable assurance as to whether the remuneration report, including the related disclosures, is free from material misstatements.

An audit involves performing audit procedures in order to obtain audit evidence for the amounts stated in the remuneration report, including the related disclosures. The choice of the audit procedures is subject to the auditor's professional judgement. This includes assessing the risk of material misstatements, whether due to fraud or error, in the remuneration report, including the related disclosures. In assessing these risks, the auditor considers the system of internal control, which is relevant to preparing the remuneration report, including the related disclosures. Our objective is to plan and perform audit procedures that are appropriate in the circumstances, but not to express an audit opinion on the effectiveness of the Company's system of internal control. An audit also comprises an evaluation of the accounting policies used, of the reasonableness of accounting estimates made by the executive directors and the supervisory board as well as an evaluation of the overall presentation of the remuneration report, including the related disclosures.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Audit Opinion
In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the financial year from 1 January to 31 December 2022, including the related disclosures, complies, in all material respects, with the accounting principles of Section 162 AktG.

Other Matter – Formal Audit of the Remuneration Report
The content audit of the remuneration report described in this report comprises the formal audit required under Section 162 (3) AktG including the issuance of a report on this audit. Since our audit opinion on the content audit is unmodified, this audit opinion includes that the disclosures required under Section 162 (1) and (2) AktG are contained, in all material respects, in the remuneration report.

Intended Use of the Report
We issue this report as stipulated in the engagement letter agreed with the Company. The audit has been performed for the purposes of the Company and the report is solely intended to inform the Company about the result of the audit.

Liability
This report is not intended to be used by third parties as a basis for any (asset) decision. We are liable solely to Vossloh Aktiengesellschaft, Werdohl/Germany, and our liability is also governed by the engagement letter dated 12 September 2022 agreed with the Company as well as the "General Engagement Terms for Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften (German Public Auditors and Public Audit Firms)" promulgated by the Institut der Wirtschaftsprüfer (IDW) in the version dated 1 January 2017 (IDW-AAB). However, we do not accept or assume liability to third parties.

Düsseldorf/Germany, 7 March 2023

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed: René Kadlubowski	Signed: Christian Siepe
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Financial calendar 2023/2024

Financial calendar 2023

Annual General Meeting	May 24, 2023
Publication of interim report/interim financial statements	
as of March 31	April 27, 2023
as of June 30	August 3, 2023
as of September 30	October 26, 2023
For further dates, go to www.vossloh.com	

Financial calendar 2024

Publication of 2023 financial data	March 2024
Press conference	March 2024
Investor and analyst conference	March 2024
Annual General Meeting	May 2024

Investor Relations

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Information on the Vossloh share

ISIN	DE0007667107
Trading locations	Xetra, Tradegate, Frankfurt, Düsseldorf, Berlin, Hanover, Hamburg, Stuttgart, Munich
Index	SDAX
Number of shares outstanding as of 12/31/2022	17,564,180
Annual average number of shares outstanding	17,564,180
Share price on 12/31/2022	€39.10
High/low price 2022	€46.35/€29.30
Reuters code	VOSG.DE
Bloomberg code	VOS:GR
Proposed dividend	€ 1.00

Glossary

Capital employed	Working capital plus fixed assets
Cash pooling	Balance transfer procedure for pooling liquidity
Credit line	Credit agreement between two or more parties
Derivative financial instruments	Contracts whose fair values are derived from basis values (e.g., stocks or currencies)
EBIT	Earnings before interest and taxes
EBIT margin	EBIT/sales revenues
EBITDA	Earnings before interest, taxes, depreciation and amortization
EBITDA margin	EBITDA/sales revenues
EBT	Earnings before taxes
Employee bonus program	Program for granting shares to employees free of charge or at reduced prices
Equity ratio	Equity/balance sheet total
Financial liabilities	Schuldschein loans, bank debts, notes payable and liabilities from finance leases
Guarantee	Assumption of guarantees and surety bonds
IAS/IFRS	International Accounting Standards/ International Financial Reporting Standards
Interest rate cap	Option deal that hedges buyers against increasing interest rates through an interest rate ceiling
Interest rate swap	Contractual agreement on the exchange of fixed and variable interest payment flows based on an underlying nominal value
Net financial debt	Financial liabilities minus cash and cash equivalents and short-term securities
Personnel expenses per employee	Personnel expenses/annual average headcount
Return on capital	See return on capital employed
Return on capital employed	EBIT/average capital employed
Treasury	Finance management
Value added	EBIT minus weighted average cost of capital (WACC) x average capital employed
Working capital	Trade receivables (including contract assets) plus inventories minus trade payables (including contract liabilities) minus prepayments received minus other current provisions (adjusted for matters not attributable to the operating business)
Working capital intensity	Average working capital/sales

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Ten-year overview*

		2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Income statement data											
Sales revenues	€ mill.	1,046.1	942.8	869.7	916.4	865.0	918.3	822.5	952.9	1,100.8	1,300.7
EBIT	€ mill.	78.1	72.3	73.1	55.7[4]	54.2	70.3	57.5	42.3	30.6[4]	52.7
Net interest result	€ mill.	(10.6)	(7.5)	(14.4)	(18.5)	(13.4)	(12.5)	(10.6)	(11.1)	(24.2)	(21.4)
EBT	€ mill.	67.5	64.8	58.7	(56.1)	40.8	57.8	46.9	31.2	(207.6)	31.3
Net income	€ mill.	56.0	35.9	20.8	(136.8)	22.7	0.3	10.1	77.8	(205.7)	23.6
Earnings per share	€	2.38	1.31	0.98	(8.32)	1.14	(0.50)	0.22	5.42	(16.46)	1.25
Return on capital employed	%	8.2	8.1	8.4	(4.2)	6.8	8.9	8.8	5.8	(21.7)	5.9
Value added	€ mill.	11.5	9.5	12.5	(105.4)	(5.8)	11.1	(1.5)	(31.1)	(267.8)	(22.8)
Balance sheet data											
Fixed assets	€ mill.	731.6	726.0	694.1	659.2	646.1	568.7	467.8	486.7	548.8	714.5
Capital expenditure[1]	€ mill.	58.2	51.3	68.7	59.8	60.5	39.5	30.3	34.2	50.7	64.4
Depreciation[1]	€ mill.	53.1	51.9	50.0	86.4	35.5	33.6	31.5	35.7	123.2	40.7
Closing working capital	€ mill.	191.6	175.6	155.3	180.3	216.0	190.0	159.2	213.8	226.5	94.5
Closing capital employed	€ mill.	923.2	901.6	849.4	839.5	862.0	758.7	627.0	700.5	775.3	809.0
Equity	€ mill.	625.1	587.9	412.4	403.6	523.3	532.4	550.8	428.7	349.6	481.1
thereof: Noncontrolling interests	€ mill.	27.2	28.6	15.9	9.4	10.8	15.0	18.0	17.0	19.7	18.6
Net financial debt[2]	€ mill.	237.5	215.6	351.3	370.4	307.3	207.7	85.0	218.6	283.0	204.1
Total assets	€ mill.	1,368.8	1,289.4	1,214.4	1,331.4	1,266.9	1,252.9	1,367.2	1,389.9	1,604.4	1,562.4
Equity ratio	%	45.7	45.6	34.0	30.3	41.3	42.5	40.3	30.8	21.8	30.8
Cash flow statement data											
Cash flow from operating activities	€ mill.	71.6	81.3	56.1	12.3	37.6	24.5	65.8	107.8	(42.2)	130.5
Cash flow from investing activities	€ mill.	(44.9)	(57.9)	(3.0)	(15.5)	(95.0)	(124.2)	(43.2)	(11.6)	(58.3)	(75.4)
Cash flow from financing activities	€ mill.	(29.3)	(30.8)	(67.4)	28.1	(14.1)	20.7	79.3	(77.0)	103.7	(63.1)
Net cash inflow/outflow	€ mill.	(2.6)	(7.4)	(14.3)	24.9	(71.5)	79.0	101.9	19.2	3.2	(8.0)
Workforce											
Annual average headcount	Number	3,794	3,612	3,482	3,774	3,720	3,934	3,682	4,069	4,883	5,247
thereof: in Germany	Number	788	748	720	871	866	854	840	1,244	1,853	1,759
Abroad	Number	3,006	2,864	2,762	2,903	2,854	3,080	2,842	2,825	3,030	3,487
Personnel expenses	€ mill.	226.8	211.8	205.1	260.1	214.9	214.8	197.1	218.1	283.0	284.0
Personnel expenses per employee	€ thous.	59.8	58.6	58.9	68.9	57.0	54.6	53.5	53.6	58.0	54.1

Ten-year overview of Vossloh AG

		2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Capital stock	€ mill.	49.9	49.9	49.9	49.9	45.3	45.3	45.3	37.8	37.8	37.8
Dividends per share[3]	€	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.50
Year-end closing price	€	39.10	45.15	41.35	37.00	42.45	46.80	59.61	57.74	53.50	72.50
Closing market capitalization	€ mill.	686.8	793.0	726.3	649.9	677.8	747.3	951.8	793.1	712.9	870.3

*2017 and 2016 with Locomotives and Electrical Systems business units reported under discontinued operations;
2015 with Rail Vehicles and Electrical Systems reported under discontinued operations;
2014 and earlier years as described previously.

[1] Excluding noncurrent financial instruments. depreciation/amortization plus impairment losses/reversals of impairment losses

[2] In brackets: net financial assets

[3] Subject to the approval of the Annual General Meeting

[4] 2014 and 2019 have been adjusted

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