vossloh

ANNUAL REPORT 2018

Grasping the future. Shaping the future.

Key Group figures		2018	2017
Orders received	€ mill.	979.2	867.2
Order backlog	€ mill.	595.0	474.4
Income statement data			
Sales revenues	€ mill.	865.0	918.3
Core Components	€ mill.	292.6	351.4
Customized Modules	€ mill.	482.6	483.3
Lifecycle Solutions	€ mill.	100.0	91.0
EBIT	€ mill.	54.2	70.3
EBIT margin	%	6.3	7.7
Net interest result	€ mill.	(13.4)	(12.5)
EBT	€ mill.	40.8	57.8
Net income	€ mill.	22.7	0.3
Earnings per share	€	1.14	(0.50)
Return on capital employed[1]	%	6.8	8.9
Value added[1]	€ mill.	(5.8)	11.1
Balance sheet data			
Fixed assets[2]	€ mill.	646.1	568.7
Capital expenditure	€ mill.	60.5	39.5
Depreciation/amortization	€ mill.	35.5	33.6
Closing working capital	€ mill.	216.0	190.0
Closing capital employed	€ mill.	862.0	758.7
Equity	€ mill.	523.3	532.4
Noncontrolling interests	€ mill.	10.8	15.0
Net financial debt	€ mill.	307.3	207.7
Total assets	€ mill.	1,265.4	1,252.9
Equity ratio	%	41.4	42.5
Cash flow statement data			
Gross cash flow	€ mill.	90.3	96.3
Cash flow from operating activities	€ mill.	37.6	24.5
Cash flow from investing activities	€ mill.	(95.0)	(124.2)
Cash flow from financing activities	€ mill.	10.9	20.7
Free cash flow	€ mill.	(19.0)	(22.3)
Workforce data			
Annual average headcount	No.	3,773	3,934
Core Components	No.	797	853
Customized Modules	No.	2,404	2,546
Lifecycle Solutions	No.	509	473
Vossloh AG	No.	63	62
Personnel expenses	€ mill.	214.9	214.8
Share data			
Year-end closing price	€	42.45	46.80
Closing market capitalization	€ mill.	677.8	747.3

[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

Dear Shareholders,

There are a lot of positives to take from the 2018 fiscal year: Outstanding feedback from our customers at the InnoTrans trade fair, the continuation of our growth strategy through the acquisitions of Austrak and the rail milling business of STRABAG Rail GmbH, new strategic partnership with CN (Canadian National) in North America, the first distribution of a dividend since 2014 and a substantial increase in new orders, particularly in China, mean that we have a lot to look forward to in the future. From a financial perspective, the 2018 fiscal year was, as expected, marked primarily by a weaker business development for project-related reasons in the high-margin focus market of China. In accordance with expectations, we could not repeat the strong results of the 2017 fiscal year in both sales and EBIT. In this annual report, we would like to give an overview of the events of the past year and provide an insight into Vossloh's groundbreaking developments into future subjects. We also provide a preview of the key financial figures for the 2019 fiscal year and, for good reason, also exceptionally for 2020.

Group sales in 2018 totaled €865.0 million, 5.8 percent below the previous year's figure of €918.3 million. As expected, deliveries brought forward by customers in 2017 and comparatively low tendering activities in the China business of the Fastening Systems business unit at that time resulted in this weaker business development. Other units were only able to compensate for the lower sales and earnings contributions that resulted from this to a limited extent. In our most recent communications, we informed you that our sales expectations for 2018 would fall at the lower end of the originally forecast range of €875 million to €950 million, and this is what occurred. Below the line, we achieved a Group EBIT of €54.2 million for 2018. The EBIT margin of the Vossloh Group thus amounted to 6.3 percent, which falls within the forecast range for 2018 of 6.0 to 7.0 percent. Negotiations regarding the sale of Vossloh Locomotives are nearly complete. As such, we are confident that we will soon find a good solution for the last remaining business unit of the Transportation division.

Orders received in the 2018 fiscal year developed favorably. At €979.2 million, orders received substantially exceeded the previous year's value of €867.2 million by 12.9 percent. This increase can primarily be attributed to positive development in the Core Components division. Among other things, we won three major orders for the delivery of rail fastening systems for the expansion of China's high-speed rail network with an overall volume of roughly €85 million. The majority of these deliveries are expected to begin in the 2020 fiscal year. This impressively underscores the Fastening Systems business unit's consistently strong market position in China's high-speed segment. We have also made a major step forward in the persistently challenging North America focus market. In 2018, we successfully concluded multiyear framework agreements with CN for the delivery of concrete ties and switch components. CN is one of the North American Class-I railroads that operates in the U.S. and Canada. CN is a strategically important partner for us, and it is a matter of decisive importance that we have established a long-term relationship with a further crucial Class-I operator in the North American rail industry with these agreements.

Left to right: **Volker Schenk** (Executive Board member), **Andreas Busemann** (CEO), **Oliver Schuster** (Executive Board member)

Let us look ahead now: "Grasping the future. Shaping the future." is the motto for our current annual report. With this in mind, we have established a wide range of new projects and processes at Vossloh that will allow us to act with greater agility. At present, Vossloh is a firmly established, focused global player in the rail infrastructure. Our customers see us as a strong and reliable provider of innovative products and rail services with a proven track record. We are also increasingly perceived, as a partner and trailblazer that develops and implements solutions for the goal of maximum track availability. At the biennial trade fair InnoTrans in Berlin, the resonance of our solutions with our customers and business partners was overwhelming. We made an outstanding impression with our future-oriented products and services that link the high quality and durability of tracks with the fulfillment of economic requirements. Our smart materials, such as the special CogX steel for switch frogs and an extremely resistant premium zinc coating for the tension clamps and screws of our rail fastening systems, were very well received. We were also able to reach a large audience with our *amalentic* tie, a highly innovative and extremely long-lasting tie made from composite materials developed in-house at Vossloh. In addition, we were able to present the compact Multi Purpose Milling machine, our newest product in the area of rail treatment machinery, to the public as a world premiere. In this context, it should be mentioned that by gradually outfitting rail treatment machinery with cutting-edge sensor technology, we are also creating a database for smart maintenance.

We also took major steps towards strengthening our core business through acquisitions and partnerships in the past fiscal year. In November, Vossloh successfully concluded the acquisition of the Australian concrete tie manufacturer Austrak. This acquisition serves to expand our product portfolio in the Australian concrete ties market, where we have already been very successful in the switches business. At the end of December, we were also able to successfully complete the takeover of the rail milling business of STRABAG Rail GmbH. The acquired sub-unit, which encompasses four milling machines and 30 employees, is being integrated into the Lifecycle Solutions division and represents a significant expansion of our existing milling business. In addition, we established a joint venture on rail monitoring in 2018. The joint venture, which operates under the name "Rhomberg Sersa Vossloh GmbH", specializes in the maintenance of switches and tracks, particularly switch servicing and diagnosis with the purpose of identifying appropriate maintenance measures.

We would now like to provide you with a somewhat more concrete overview of the near future: For the 2019 fiscal year, we are assuming a range of €900 million to €1 billion for Group sales. In the Core Components division, we anticipate substantially higher revenues in the Tie Technologies business unit than in 2018 due to the acquisition of Austrak. We also anticipate increased revenues in several regions for the Fastening Systems business unit, although not yet in China. We are currently assuming that sales in China for 2019 will remain at the same level as 2018. A significant increase in sales in China in comparison with the previous fiscal year is expected for 2020. This has prompted us to take the exceptional step of providing a forecast beyond the 2019 fiscal year. For the 2020 fiscal year, we are currently planning for Group sales between €950 million and €1.05 billion. Based on our current assumptions, this will not only result from the contributions of the China business. We also anticipate higher sales and earnings contributions in the North America focus market and growing milling business in the Lifecycle Solutions division. Under these conditions, we anticipate from our current perspective an EBIT in 2019 within a range of €50 million to €60 million, and forecast an increase to €65 million to €80 million for 2020.

Dear Shareholdes, we want you to participate in the success of your Group appropriately. Due to the stable financial situation, we, the Executive Board of Vossloh AG, together with the Supervisory Board, propose the distribution of a dividend of €1.00 per share also for the 2018 fiscal year.

As publicly announced on March 4, 2019, Dr.-Ing. Kefer has resigned from his position as member and Chairman of the Supervisory Board for personal reasons. Together with the Supervisory Board, we would like to thank Dr.-Ing. Kefer for his good and trustworthy work.

All in all, Vossloh remains on track towards further growth and sustainably increasing its profitability in the future. We are continuously developing our core business and sounding out opportunities for cooperations and acquisitions in a targeted manner. We are well-prepared and purposefully continuing our constant advancement faced with a disruptive world on one hand and our industry's typically longer-term developmenit processes on the other. You can count on us. We are grateful for your trust.

Yours sincerely,

Andreas Busemann, CEO

Overview of the year 2018

Q1 2018

The locomotive business based in Kiel, Germany, the last remaining business unit in the Transportation division, is reported under discontinued operations as of December 31, 2017.

In the meantime, two and a half years after the initial groundbreaking, production at Vossloh Locomotives is fully underway at the new plant. Covering a total area of 18,000 square meters, what is likely the most modern locomotive factory in Europe has been built in Kiel's Suchdorf district.

Q2 2018

Vossloh wins a tender for the delivery of rail fastening systems in China. The order encompasses a volume of approximately €30 million. A subsection of the route from Zhengzhou, in eastern China, to Wanzhou, a district of the megacity Chongqing, is to be equipped.

The condition of the entire tram network of Le Havre will be assessed for the first time since the network went into operation six years ago. Vossloh will prepare a detailed description and assessment of the routes for the Compagnie des Transports de la Porte Océane. This will allow the operator to deploy their budgets in a more targeted manner as part of a holistic maintenance strategy while maximizing the service life of the infrastructure.

At Vossloh AG's Annual General Meeting in Düsseldorf, Germany, shareholders approve the proposed dividend distribution of €1.00 per share. Prof. Dr. Anne Christine d'Arcy and Dr. Bernhard Düttmann are newly elected to the Supervisory Board as shareholder representatives.

Q3 2018

After the conclusion of a multiyear framework supply contract for concrete ties in April, Vossloh announces the conclusion of a second multiyear framework agreement with CN (Canadian National) for the delivery of switch components in the North America focus market. CN is one of the North American Class-I rail companies that serves both the Canadian and U.S. markets.

At the InnoTrans trade fair for rail technology in Berlin, which takes place every two years, Vossloh presents its wide-ranging portfolio as a technologically leading specialist and value partner for rail infrastructure. Under the motto of "The Smart Rail Track by Vossloh," the Company presents the future of the intelligent railway. The trade fair is attended by around 161,000 industry visitors from 149 countries.

Vossloh and Rhomberg Sersa establish a joint venture. The joint venture, which operates under the name Rhomberg Sersa Vossloh GmbH, specializes in the maintenance of switches and tracks and offers a wide range of services for the value-conserving management of rail infrastructure.

The demolition excavator has made room for the factory of the future in Werdohl, Germany. The extensive conversion and construction work is being performed while production is ongoing and is expected to continue until 2021. In the meantime, a large portion of Vossloh AG has moved into a new quarter in Schalksmühle, Germany, 20 kilometers away. The transitional solution will remain in place until the end of construction period in Werdohl.

Q4 2018

In order to maintain a consistently high level of rail quality in the Gotthard Base Tunnel, Vossloh's HSG grinding train has been used on a regular basis for just over two years. Grinding cycles took place for the fifth time in October 2018. High-speed grinding (HSG) is an integral element of track maintenance for Swiss Federal Railways.

The new foundry in Outreau, France, officially begins production. The location in northern France is one of the largest of its kind in Europe, and is a competence center for foundry technology for Vossloh. In 2020, the cutting-edge production facility will go into operation fully refurbished after the conclusion of the second phase.

Vossloh wins another tender for the delivery of rail fastening systems in China worth approximately €35 million for a section of the planned high-speed route between Ganzhou and Shenzhen in southeastern China.

Vossloh successfully concludes the acquisition of the Australian concrete tie manufacturer Austrak Pty Ltd. The contract was signed on August 3, 2018. This acquisition serves to expand the Company's product portfolio in the Australian concrete ties market and thus to increase vertical integration in the Australian rail infrastructure business.

Vossloh wins a major order for the delivery of rail fastening systems in China for the third time in 2018, this time worth approximately €20 million. Rail fastening systems will be delivered for the route between Weifang and Laixi in northeastern China.

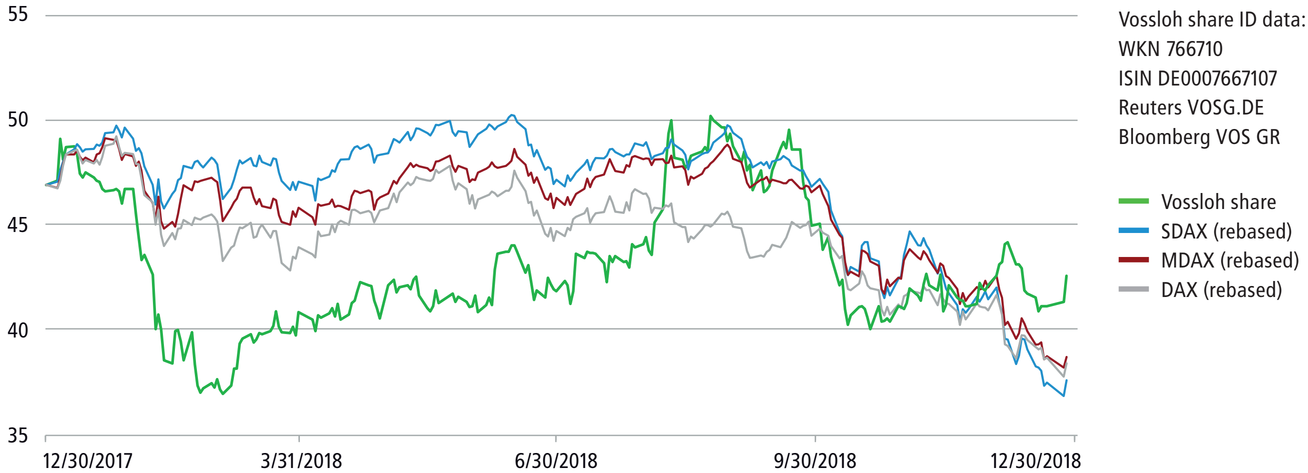
Vossloh continues to expand the service business bundled in its Lifecycle Solutions division by acquiring the high performance milling business of STRABAG Rail GmbH. The acquisition further strengthens Vossloh's rail and switch processing business.

Vossloh stock

The 2018 stock market year was generally disappointing. The introduction of U.S. tariffs on steel and aluminum, concerns surrounding an increasingly contractionary global monetary policy and weaker leading indicators in the eurozone led to depressed stock markets in the first quarter. In the second and third quarters of 2018, the mood was calmed in light of the ECB's announcement that it would initially leave interest rates unchanged. The consistently robust economic data from the U.S. as well as measures in China to loosen monetary and fiscal policy also contributed to a momentarily stable situation in capital markets. Negative factors won out again in the fourth quarter of 2018: Disappointing economic reports from China and Europe, concerns surrounding the intensification of the trade war between the USA and China, the ongoing uncertainty surrounding Brexit and profit warnings from some major U.S. and European companies caused share prices to tumble. Positive reports on holiday season business and persistently strong labor market figures in the U.S. did little to change this. All major global stock market indices finished 2018 down from the beginning of the year, with the majority seeing downturns in the double digit percentage range.

Germany's leading index, the DAX, fell significantly, particularly in the fourth quarter of the year. It ended 2018 at a level of 10,559 points, 18.3 percent lower than at the end of 2017. The performance of the MDAX was similarly negative. It closed 2018 at 21,588 points, representing a twelve-month loss of 17.6 percent. The SDAX is the most significant index for Vossloh. The SDAX dropped immensely in the fourth quarter, losing 20.0 percent year-on-year, after remaining essentially stable for the previous nine months.

Stock price trend from January 1, 2018, to December 30, 2018



Vossloh share ID data:
WKN 766710
ISIN DE0007667107
Reuters VOSG.DE
Bloomberg VOS GR

Vossloh stock indicators		2018	2017
Earnings per share	€	1.14	(0.50)
Dividend per share	€	1.00[1]	1.00
Annual average number of shares outstanding	thousand shares	15,967	15,967
Number of shares outstanding at year-end	thousand shares	15,967	15,967
Closing share price	€	42.45	46.80
High/low	€	50.40/36.55	63.99/44.10
Closing market capitalization	€ mill.	677.8	747.3
Trading volume	thousand shares	4,092	3,434
Average daily trading volume	thousand shares	16.3	13.6

[1] Dividend proposal subject to approval of the Annual General Meeting

At the beginning of 2018, the Vossloh share fell significantly in value while German stock markets still remained stable. The stock began to recover slowly in March 2018, and then registered a very strong increase in price in August which continued until September. The share was unable to escape the subsequent general bearish mood. Ultimately, despite price gains in November and December, the Vossloh share lost 9.3 percent year-on-year; however, the loss in value was significantly lower than the market as a whole. The share began the year with a price of €47.00 on January 2. It reached its highest point for 2018 of €50.40 during trading on August 24, and its lowest of €36.55 during trading on March 2. On December 28, 2018, the last trading day of the year, the stock's closing price stood at €42.45 (December 29, 2017: €46.80).

The market capitalization of Vossloh AG, relative to the unchanged 15,967,437 shares outstanding, amounted to €677.8 million on December 28, 2018. Due to the share price being down year-on-year, this was below the market capitalization of €747.3 million at the time.

Dividend

The Executive Board and Supervisory Board of Vossloh AG will propose a dividend payment of €1.00 per share also for the fiscal year 2018 to the shareholders at the Annual General Meeting scheduled for May 22, 2019. Based on the number of dividend-bearing shares, this equates to a dividend payout of almost €16 million in total.

Shareholder structure

The largest shareholder of Vossloh AG remains Mr. Heinz Hermann Thiele, whose shareholding amounts to 44.73 percent of the capital stock (notification from December 30, 2016). Additional known shareholders of Vossloh AG with voting rights exceeding the legal reporting threshold of 3 percent are Franklin Mutual Advisers, LLC, Wilmington, Delaware, USA (5.05 percent, December 28, 2017), LBBW Asset Management Investment-gesellschaft mbH (3.09 percent, February 14, 2018), Franklin Mutual Series Funds (3.02 percent, October 15, 2018) and LAZARD FRERES GESTION S. A. S., Paris, France (3.01 percent, March 24, 2014). In accordance with the Deutsche Börse AG definition, the assets of the latter investors are not considered fixed shareholdings, but rather count toward the free float market capitalization. Accordingly, as of the end of December 2018, the free float of Vossloh AG's capital stock remained unchanged at 55.27 percent. The free available market capitalization according to this definition was determined on the basis of a volume-weighted average price over 20 trading days, and totaled around €373 million on the reporting date December 31, 2018.

Analysts' ratings

As of the beginning of 2019, nine financial analysts covered Vossloh with regular commentaries and estimates. Six of these, the overwhelming majority, recommended holding the Vossloh share; two analysts gave the share a "sell" rating, and one gave a "buy" recommendation. The average price target for the Vossloh share was €43 based on the analysts' ratings made available up to the beginning of 2019. The lowest price target was €35 and the highest was €53.

Sustainability

For many years, Vossloh AG has been deemed appropriate for investors with a sustainability focus. Vossloh has been listed in a number of sustainability rankings since 2008. The Vossloh share belongs to oekom research's investment universe, and is also part of the Global Challenges Index, which is made up of 50 companies worldwide which promote sustainable development through their product and service portfolios. Vossloh submitted a nonfinancial Group statement for the first time for the 2017 fiscal year, and has continued this practice in its reporting for the 2018 fiscal year.

Capital market dialogue

The Vossloh Investor Relations team continued its intensive dialogue with institutional and private investors once again in the 2018 fiscal year. Over the course of the year, Vossloh AG took part in a number of capital market conferences and organized meetings with investors and analysts. Regular conference calls have also been a key element of Investor Relations for many years.

The Investor Relations team members were, and are, available to answer written or phone inquiries at any time. Additional information about the Vossloh company and the Vossloh share is available on the website www.vossloh.com. In addition to up-to-date financial reports, presentations and press releases, the website also provides information about creditor relations. Please send your questions to investor.relations@vossloh.com or call us at +49 (0)2392/52-609.

Grasping the future. Shaping the future.

In modern-day industrial societies – and particularly metropolitan areas worldwide – rail infrastructure is being used to almost full capacity. Every bottleneck and every malfunction results in delays and therefore in unpunctuality. At the same time, sustainability and especially the outstanding transport capacity clearly speak in favor of rail transport.

Here at Vossloh, we understand the physical fundamentals and technical interrelationships of railways, we know the needs of operators, and we have a clear vision for how we can and will shape the future of rail as a mode of transport.

With this in mind, Vossloh has taken the following pages to describe the main ways in which the world of rail might develop over the next two decades. At the same time, we also show – especially with our achievements in 2018 – that we are determined, well-prepared and well on our way towards this future scenario.

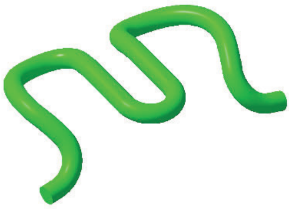
Not even the disruptive changes caused by digitalization can conceal the fact that profound and expansive changes to long-lasting and highly capital-intensive rail infrastructure can only be realized over long periods of time. Over the next twenty years, for example.

In our strategic areas of action – innovation, acquisitions and partnerships, operational excellence and linked-up work – we have clearly defined the way forward under the "One Vossloh" umbrella.

At this point last year, we presented what our vision of "The Smart Rail Track by Vossloh" means to us. By attending the InnoTrans 2018 trade fair, Vossloh was able to send the compelling message that we no longer stand just for our proven and innovative products and rail services. With our bundled expertise and a new sense of openness, we hope to set out on a journey together with our customers and partners where the goal is maximum track availability.

Extremely durable

The Skl 15 HF tension clamp for rail fastening, which was launched in 2018, is optimized for very high frequencies and can withstand speeds far beyond 300 km/h.



An overview of InnoTrans 2018 can be found at: www.vossloh-innotrans.com

Cultural zeitgeist, political discourse, industry discussion – many things now hinge on the digital, and rightly so. However, the requirement for available railways, and therefore for punctual trains, remains the quality and durability of the tracks. This, and therefore the cost-efficiency of a product throughout its entire lifecycle, is already decided as early as the product design stage. For over 100 years, the development and production of safe and long-lasting components and systems have made up the core of Vossloh's expertise. For us, durability is an integral element of an intelligent railway.

Smart materials

The materials used are a critical factor in ensuring that products are long-lasting and low-maintenance. Wear and tear is the highest at the frog of a switch. The unavoidable interruption of the driving surface always leads to shocks. Although modern designs minimize these, selecting the right steel for the frog remains an ongoing concern in switch construction. Vossloh cooperated with Arcelor Mittal Industeel to develop the special steel CogX and introduced it in 2018. The purpose of this material is to extend lifespans by at least 30 percent compared to traditional materials. CogX is extremely hard, homogeneous and tough, and is highly suitable for welding – crucial characteristics for steel used in switch construction.

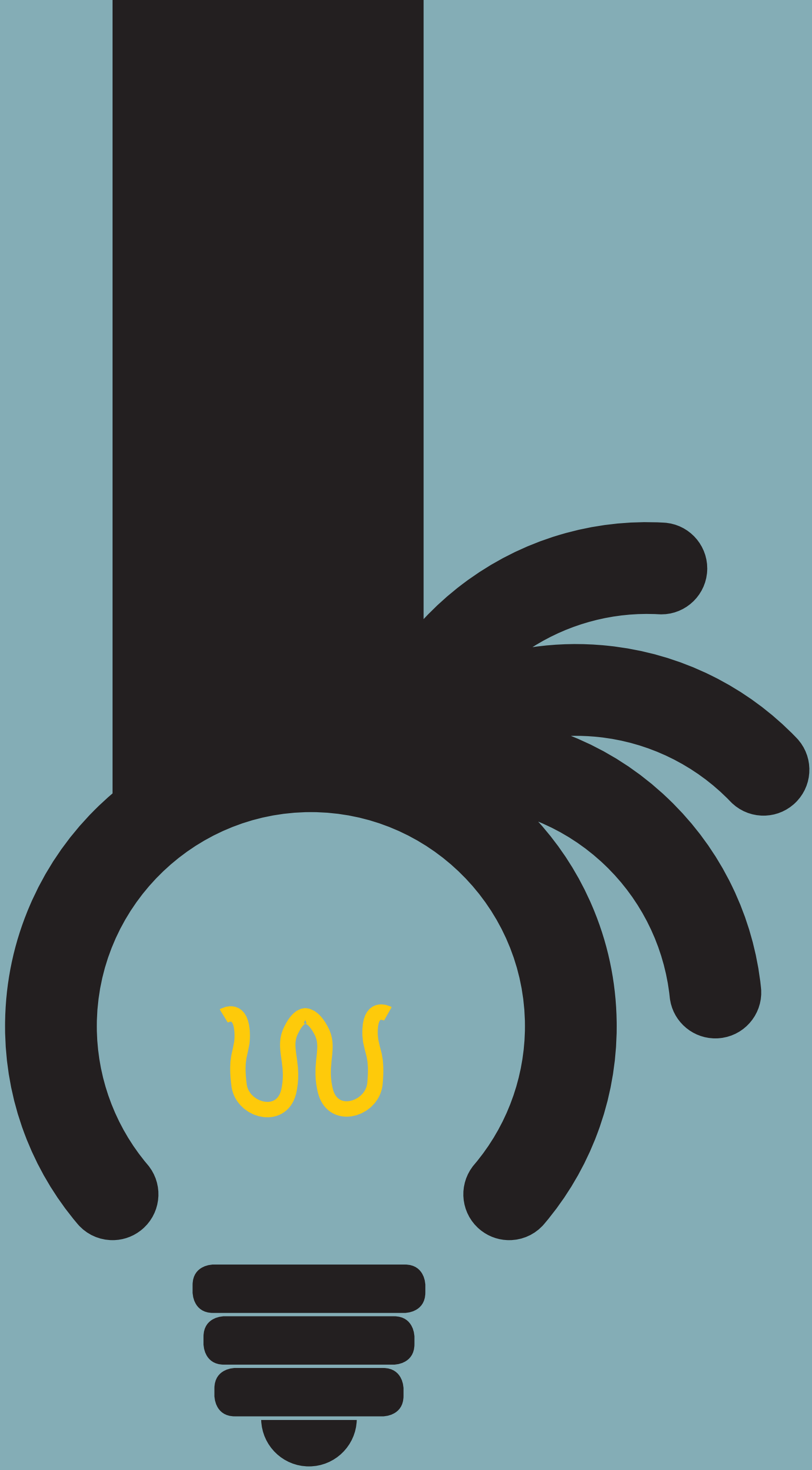
The premium zinc coating for tension clamps and screws presented in 2018 is finer than a human hair, yet extremely robust. The coating provides long-lasting protection from corrosion, even in extreme environmental conditions. Its structure works like armor, and is even "self-healing" to a certain degree. These longer lifespans do not come at the expense of sustainability. Environmentally harmful chemicals like chromium compounds are omitted, and resources are used efficiently thanks to the thin coating.

With *amalentic*, Vossloh introduced InnoTrans 2018 visitors to an innovative material with special properties for its own composite ties. The *amalentic* tie is especially suitable as a replacement for wooden ties. Wooden ties are increasingly facing restrictions on their use due to the potential health and environmental hazards posed by the waterproofing materials they contain. The *amalentic* tie can last for at least 50 years, roughly twice the lifespan of a wooden tie. It is robust, recyclable, and, depending on the design, can even do without individual fastening components. All of these qualities together makes the *amalentic* tie a perfect complement to Vossloh's concrete ties.

Polished simulation expertise

The rail fastening system is a crucial element of the spring-mass system of the railway. Vossloh possesses industry-leading expertise in this area, and uses a complex simulation model that analyses both material qualities and the dynamic vehicle-track interaction as a whole. This is not only good for the lifespan of products, but also reduces the amount of time to market. This is why Vossloh was able to have the innovative Skl 15 HF tension clamp ready for approval within one year. Vossloh also uses the simulation model to develop safer and longer-lasting switches. The proprietary DYNADeV platform is capable of simulating the effect of moving rail vehicles on a switch and its components in real-time.

*Durability makes the difference:
Rail tracks must be more
efficient to use in the future.*



Innovation cycles in the railway industry will accelerate significantly over the next decade.

Learn. Share. Grow.

Innovation requires a culture of sharing, cooperation and learning. For this reason, we remain dedicated to working on international and cross-divisional development opportunities for young talent and managers. 2018 saw Vossloh establish a new online learning environment. It focuses on tailoring sessions to individuals whenever possible – with maximum learning success. The Vossloh Learning Platform supports this approach and offers numerous learning opportunities. In addition to internal and external in-person training, there is also digital learning formats with carefully selected tutorials, online courses and specialist lectures. The details: The learning platform has been implemented by an international and cross-divisional project team in accordance with the priorities and concerns of Vossloh employees. The guiding principle of the platform is continuous learning, sharing, and growth (Learn. Share. Grow.). Vossloh is of the firm belief that business growth is only possible by fostering people's skills and improving employee satisfaction as a result. The Vossloh Learning Platform supports the One Vossloh concept by promoting knowledge exchange, cooperation and joined-up thinking. Learning and working are seamlessly integrated in day-to-day business. For this reason, the learning platform also provides orientation for freely accessible digital learning content.

New agile approaches and methods

Vossloh paid a great deal of attention to processes in 2018 in order to fully develop the organization's existing potential. The new Group-wide innovation management process took center stage. This process primarily serves to answer the question of whether an idea is relevant for particular customers and markets. Ideas need to go through multiple stages, exciting expert colleagues and decision-makers and convincing them of their potential along the way. Initial feedback from the market or customers is just as obligatory as a business plan. The innovation process is supported by in-person events and an online platform.

In order to create space for ideas and enable more agile working, Vossloh has also maintained teams outside of the conventional structures since 2018. These provide suitable experts from all Vossloh divisions with the opportunity to concentrate exclusively on a single urgent customer topic with a large degree of freedom for a limited time. When starting out, early validation is more important than depth of detail. Heavy specifications books are done without; instead, an initial viable product idea that can easily be adjusted later is created in short, dynamic steps before being developed until it is ready to launch. During the project, the team is permitted to disengage from their normal day-to-day responsibilities.

In 2018, we created the role of a Chief Digital Officer who advances and holds responsibility for the implementation of digital innovations for Vossloh's business or new business models in close coordination with our customers. The Chief Digital Officer reports directly to the CEO.

Truly networked

One Vossloh has been the guiding principle of the integrated Group since 2014. Five years on, people are working together in a truly networked fashion under the One Vossloh umbrella. It was natural for managers and experts at all levels to discuss and share knowledge across all divisional boundaries in 2018. Up-and-coming talent appreciates the advantages of the flat structure of the Vossloh Group: early responsibility, short decision-making processes and interdisciplinary projects, and at the same time international and intercultural.

Strategic partners

Vossloh engineers know which physical parameters are relevant and which sensors must be used to capture these measurements with which level of precision in order to record the condition of railways. Vossloh also works together with strategic partners to prepare relevant information for operators and use artificial intelligence. One example from 2018 is our joint venture with Rhomberg Sersa. With software established in the market, the new company possesses professional inspection and monitoring expertise, with a focus on recording, assessing and evaluating the condition of infrastructure and identifying suitable maintenance measures.

Success factor: digital expertise

The availability of tracks, while simultaneously considering the associated costs, is becoming increasingly critical for rail operators. Rail traffic is increasing, along with the cost of maintenance and repairs, which make up the majority of costs over the entire lifecycle. This is the central pain point for operators, as every disruption costs a great deal of money and trains running late damage their reputation. In an ideal world, the operator could make use of its infrastructure reliably and with a high level of quality. In the best case scenar-io, there would be no more component failures and thus no more route closures. Operators would not need to carry out work at fixed intervals or according to the "scattershot" principle, and there would be no "surprises" leading to unexpected work. They would be so familiar with the condition of their network that they would be able to make long-term plans, and only carry out work that is actually necessary based on the actual condition of their network. This ideal world is possible in principle – with the opportunities provided by digitalization.

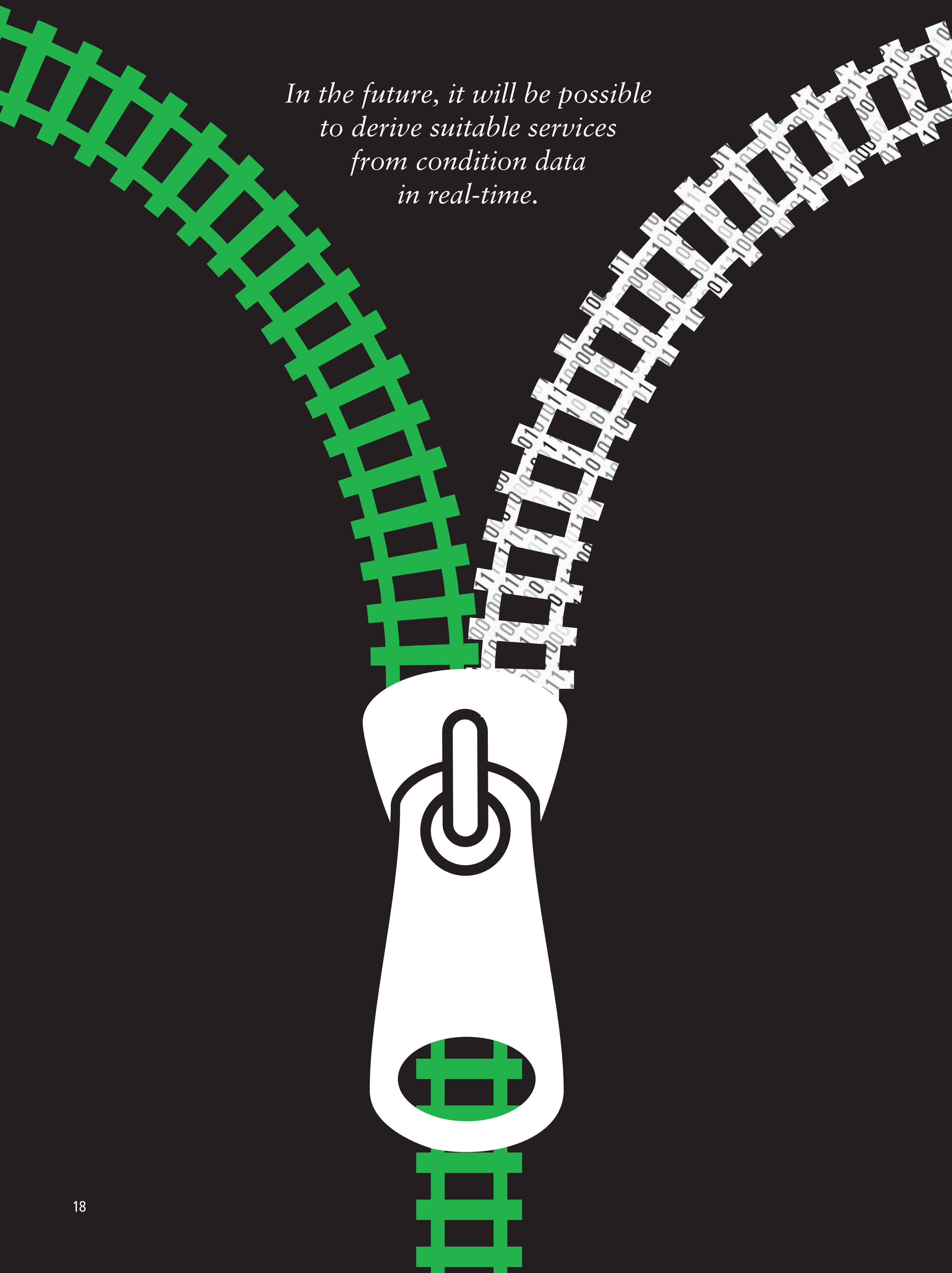
Solutions for monitoring track conditions have been used in the field for many years. It is only now, however, that the limiting factors for the storage and, in particular, the prompt analysis and interpretation of large quantities of data are beginning to be addressed. Whoever can understand and interpret data about the current condition of tracks and switches will become an indispensable partner for the owner of the infrastructure – especially as expertise improves with increasing quantities of data.

Vossloh wants to provide open systems and integrate mainstream technologies in order to increase acceptance within the market and achieve a competitive time to market. The software of our joint venture company Rhomberg Sersa Vossloh takes a comprehensive approach to optimizing lifecycle management for rail infrastructure. The joint venture specializes in the maintenance of switches and tracks and offers a wide range of services for the management of rail infrastructure. "MR.pro" is the digital tool for the technical maintenance management of entire rail infrastructures. The software provides comprehensive numerical and graphical analysis tools for evaluating and visualizing the condition and substance of track infrastructure. Bi directional interfaces ensure connections to business systems for maintenance management and planning. The system is open to all data sources and all manufacturers. MR.pro is in some ways a system memory. Changes in product models and condition information for tracks over time can therefore be accurately depicted in the system. Useful life can be predicted and tracked at all times.

The Smart Maintenance app was developed in-house by Vossloh: Simple and intuitive to use, it is designed to serve as the cornerstone of the maintenance cycle. The software interprets measurement data and derives maintenance scenarios while taking costs and route closure times into consideration. The operator then has the option of choosing a recommended maintenance scenario or having alternatives prepared.

No one can control natural disasters, but technology-related business interruptions will become a thing of the past thanks to artificial intelligence.

In the future, it will be possible to derive suitable services from condition data in real-time.



A virtually emulated network, a step ahead of reality

The intelligent railway of tomorrow will not be a standardized solution. Customer requirements differ – and solutions for intelligent railways will follow the most pressing requirements and change to reflect customer needs over time. The use of digital technology is also always a learning process. Better data and knowledge about the infrastructure must be interpreted in a real-world environment. In view of the possibilities of digital technology, we can imagine an infrastructure that is so smart and knows its own condition so well that it automatically plans maintenance activities in order to achieve defined availability targets. This system would give recommendations about which maintenance measures should be performed and when these should be carried out in order to prevent travel disruptions, based on the available resources and the time available on the tracks. It is also conceivable that the network would have a virtual twin on a computer that would use AI to make predictions on the basis of data on usage and wear and tear, as well as condition information.

Switches as an innovation driver

As a safety-critical infrastructure element, switches are constantly at the center of the maintenance strategy of network operators. By definition, a switch fault always affects multiple routes, which can lead to far-reaching operating restrictions within the route network and disrupted vehicle circulation. Issues with switches are responsible for the majority of delays. Switches are also an ideal starting point for the continuous collection of condition data with sensors. This is because switches represent a meeting point not only for tracks, but also for signal and control systems. This means that the data gathered at these points is extremely useful. In addition, data-based maintenance solutions for switches have a significant effect very quickly. For this reason, point machines are one of the first application cases for Vossloh's IoT sensor. This sensor can be configured freely and can collect a wide range of parameters from inside a compact housing. The data is preprocessed directly by the embedded microprocessor. The data is then sent to a central cloud, and can be prepared and visualized using Vossloh's V-MON platform.

The decisive step towards truly predictive maintenance then requires the use of self-learning systems. Once the artificial intelligence has identified all of the significant patterns that play a role in the occurrence of disruptions, it can then implement these – in conjunction with live measurement data – in the form of reliable forecasts for each individual switch.

Intuitive data cockpit

The Vossloh monitoring platform, V-MON, introduced in 2018, compares the anticipated physical behavior of switch components with measurement data. This can include data such as current flow, vibrations, hydraulic pressure, position of the switch device, or even environmental parameters like temperature, humidity and precipitation.
By using threshold values and disruption patterns, predictions of maintenance needs become more and more reliable over time.

Smart Maintenance

With Vossloh's Digital Twin app, maintaining a point machine is virtually child's play. By holding a mobile device over the switch components, the technician receives an extremely precise virtual depiction of the real components and is led step-by-step through the maintenance process in real-time in the form of animated instructions. The technician can order replacement parts in the app, if necessary, and effortlessly receive access to production and function data on-site. This "digital twin" allows railway specialists to resolve disruptions quickly without the need for time-consuming preparation.

Technology makes people's work easier

Fatigue damage significantly impairs the lifespan of the railway, and by extension passenger safety. Switch disruptions can trigger domino effects throughout the entire network. Vossloh applications set new standards in the areas of working speed and quality of results. The applications introduced in 2018 combine measurement and evaluation data, provide a quick overview of the condition of routes and suggest suitable measures or enable maintenance technicians to identify damage and carry out repairs without further preparation.

Services of the future: rapid and digitally enhanced

With innovative ideas, Vossloh combines the best of the analog and digital worlds to offer customers the 100 percent track availability. One key to this is service which not only arrives on-site quickly, but also takes place either during the timetable or during rest periods.

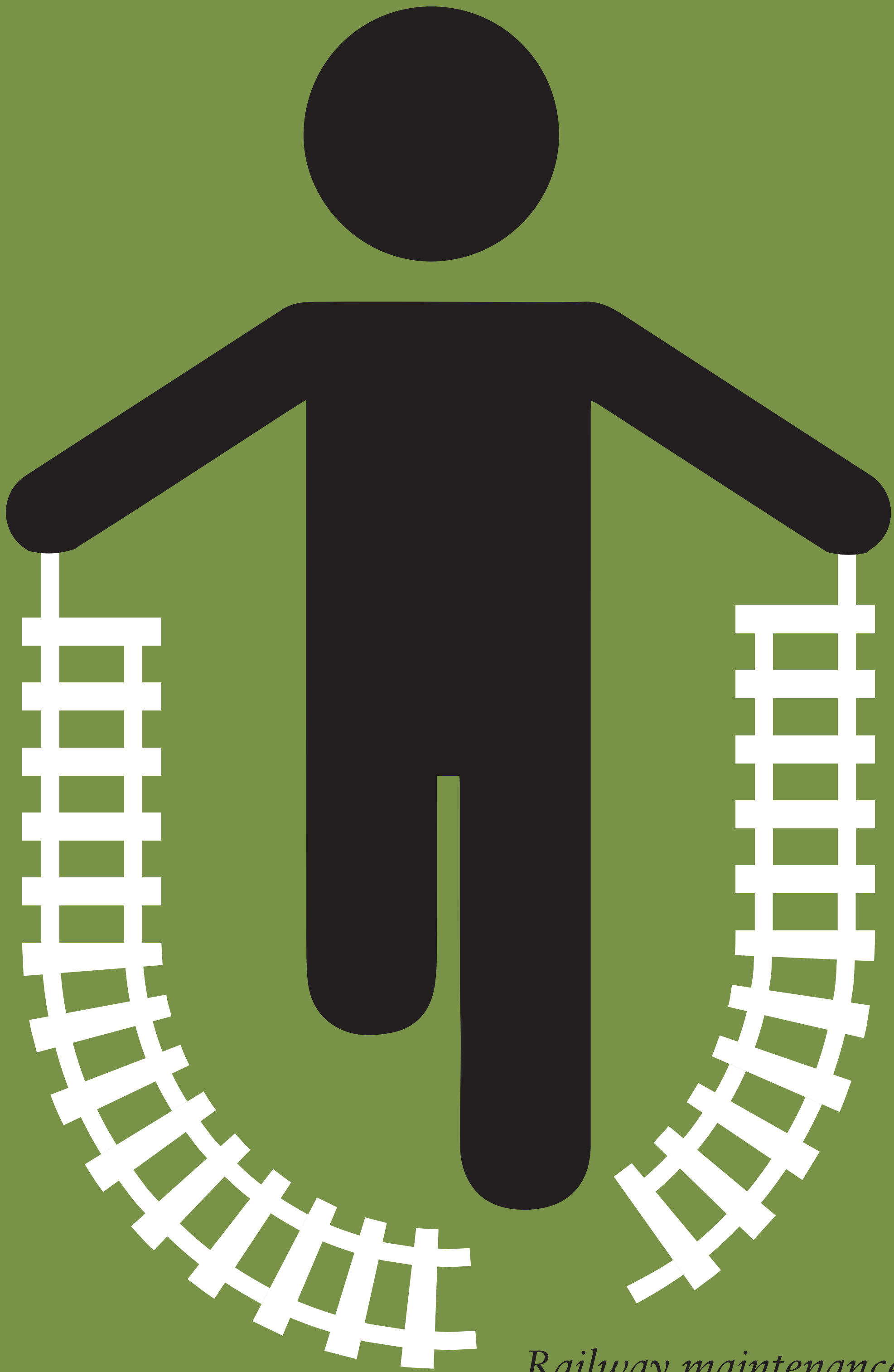
In the case of high-speed grinding, the vehicles are so fast that they can keep up with regular traffic. Vossloh can also help if rail replacement work is needed – a fact proven at truly critical locations such as the Channel Tunnel or the highly frequented 300 km/h route between Cologne and Frankfurt.

Thanks to highly refined Vossloh logistics, switch replacements within eight hours have also become the new standard in Sweden.

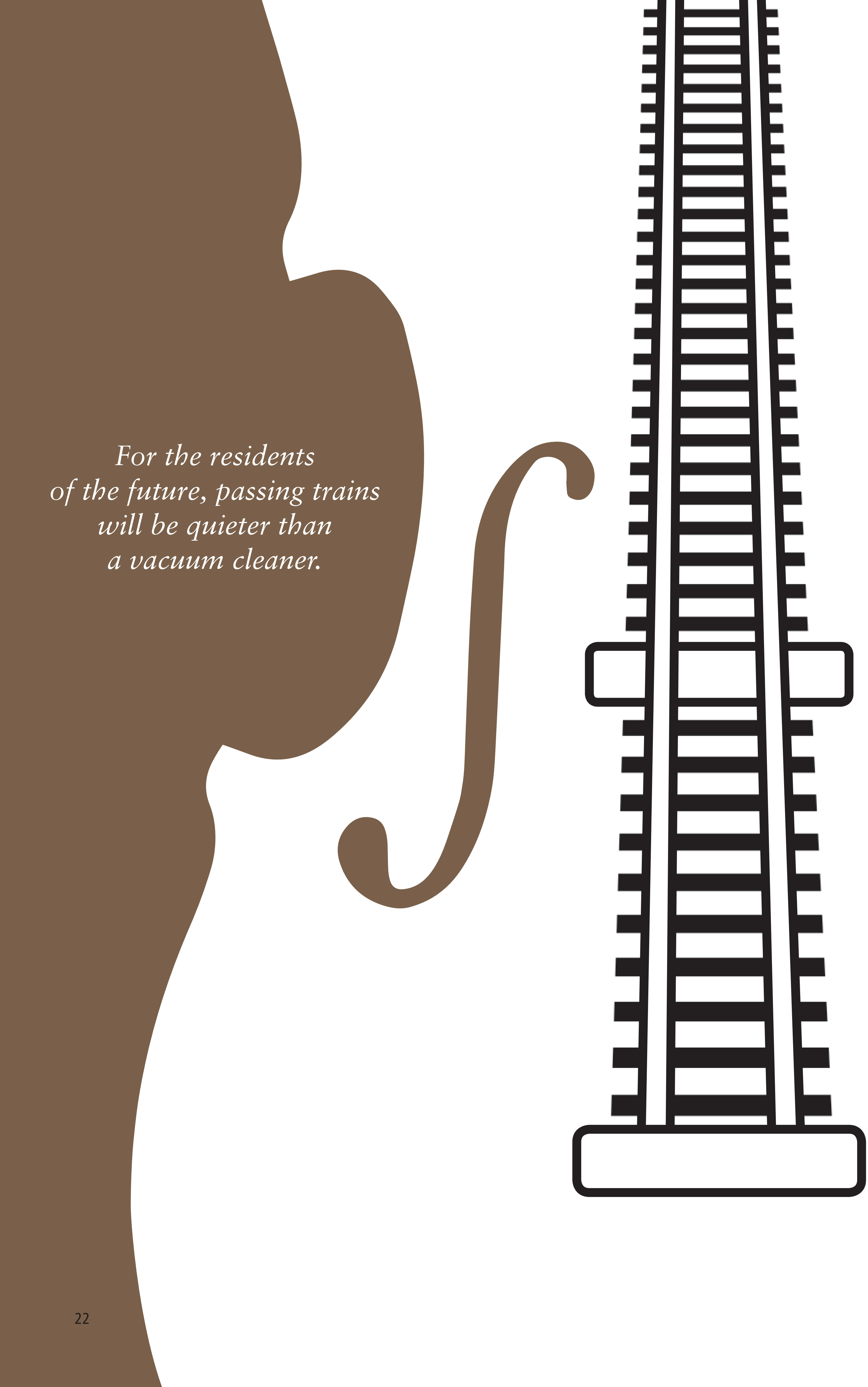
If the rail is already too severely damaged, rail milling is the method of choice. This not only reduces noise emission and increases rail safety, but also significantly increases the life of the tracks. For this reason, Vossloh strengthened its service business during the reporting year by acquiring the rail milling business of STRABAG Rail GmbH.

The lightweight MPM milling machine can be brought to the deployment site by road or by rail in the shortest possible time. Despite its size, the MPM is a powerhouse that can remove up to two millimeters per pass. Touch-free rail scanning using laser technology even enables comprehensive, condition-oriented switch processing. Another factor critical for use during night hours is that the milling procedure itself is extremely quiet. With sound levels of less than 78 dB(A), local residents will hardly notice anything.

The Smart Maintenance app supplements digitalized processes: Vossloh processing machines are used as diagnostic vehicles in order to survey rail conditions during the ongoing timetable without closures. The diagnostic data is supplied directly to the app; with each maintenance cycle, the database for processing recommendations gets larger. Rail services can be ordered directly from the app.



Railway maintenance is becoming very easy and intuitive.


For the residents
of the future, passing trains
will be quieter than
a vacuum cleaner.

Noise reduction requires a profound understanding of railways

Noise and vibrations are a particular inconvenience for people in dense urban areas and overshadow the generally outstanding environmental credentials of rail as a means of transportation. For this reason, the pursuit of maximum availability for rail infrastructure will always involve a concerted struggle against noise. This is because noise restricts route usage and route expansion, causes sickness and drives up costs.

Vossloh's solutions for noise and vibration go straight to the source: the track itself. The frequencies generated by rail traffic fall within a relatively low frequency range. This means that humans also perceive them physically to a certain extent – a phenomenon many will be familiar with from listening to a subwoofer. Rail fasteners perform a critical function in dampening structural noise. The elastic tension clamps, and particularly the intermediate layers made of the Vossloh material *cellentic*, dampen vibrations effectively. *cellentic* is a highly flexible elastomer manufactured by Vossloh that is also distinguished by its outstanding temperature, aging and weathering behavior. In urban networks, Vossloh can use DFF 336-type dampening fasteners. The newest generation has a system framework made of plastic which improves dampening with polymer-coated base plates. The noise level can be reduced further through the use of sleeper pads and by dampening the rail web.

Beginning with the Shanghai Metro, Chinese scientists have confirmed that Vossloh's "whisper switches" significantly reduce vibrations. The whisper switches are also embedded with specially-designed frogs that minimize shocks when driven over. In cities, filler block elements for rail bearings also come into play. These primarily serve to electrically insulate the rails. A welcome side-effect: the rails are also insulated acoustically.

The better rails and wheels are maintained, the less noise and vibrations are generated by the rail-wheel contact itself. Vossloh's high-speed grinding also makes it possible to achieve an effective acoustic grind. This reduces rail noise by up to ten decibels. The human ear perceives this as a halving in volume! With the increasing use of sensors in railways, it will be possible in the future to effectively evaluate and document whether the rail vehicles in use have well-maintained wheels.

The fight against noise and vibrations was one of the points of emphasis of the Vossloh presentation at InnoTrans 2018, and could even be physically experienced there under the "sound shower." On the tracks, Vossloh's highly elastic rail fastening systems and intermediate layers made of *cellentic* minimize vibrations and structural noise directly at the source. The passage of a train with smooth, well-maintained wheels on a rail with an acoustic grind now no longer needs to be any louder than about 75 decibels. This is equivalent to the passage of a car, the noise of a food court or a washing machine during a spin cycle.

Quiet rails

The Multi-Purpose Milling (MPM) milling machine celebrated its world premiere at InnoTrans 2018. Tailored to the needs of regional transportation, it is also suitable for flexible hot-spot processing on mainline routes. With its compact dimensions and low weight of only 16 metric tons, it can be used for a wide variety of applications. It can be quickly transported to the deployment site by truck or flatcar. A well-maintained, MPM-processed rail is also a quiet rail.

Smart factory

In 2018, the green light was given to the factory of the future in Werdohl, Germany, an ultramodern production plant for rail fastening systems. Production is being automated further, and throughput time for tension clamps reduced by 50 percent. Lead times will also be reduced because additional components will be sourced from Vossloh's own manufacturing. With the "factory of the future", Vossloh customers will benefit from an entirely new and excellent service level thanks to digitalized processes.

Good climate

With two landmark projects, Vossloh is currently bringing the factory of the future to life – at the main plant for rail fasteners in Werdohl, Germany, as well as the foundry for crossing frogs in Outreau, France. The first of two subsections at Outreau was officially launched in 2018. Creating modern workplaces that meet the highest standards for occupational health and safety is at the very top of the agenda. In the interest of more sustainable production, a focus has been placed on both increasing energy efficiency and using alternative energy sources more intensively. The Werdohl location has set a goal for itself: Within 20 years, the manufacturing process for every tension clamp will be carbon-neutral. A comprehensive set of measures are already in use: the most efficient burner technology, the best possible insulation of furnace systems, optimal waste heat utilization, lifecycle analysis, CO_2 monitoring as well as the active participation of the employees at the site. The next goal for the period from 2017 to 2020: to reduce CO_2 by 30 percent.

Top industrial performance

Researchers anticipate that the increasing use of robots and artificial intelligence in production could increase productivity to the point of balancing out the cost advantages of manufacturing in "low-wage" countries. Manufacturing in the factory of the future in Werdohl will be optimized by 2021 with linear processes, new technologies and a substantially higher degree of automation for tension clamp production.

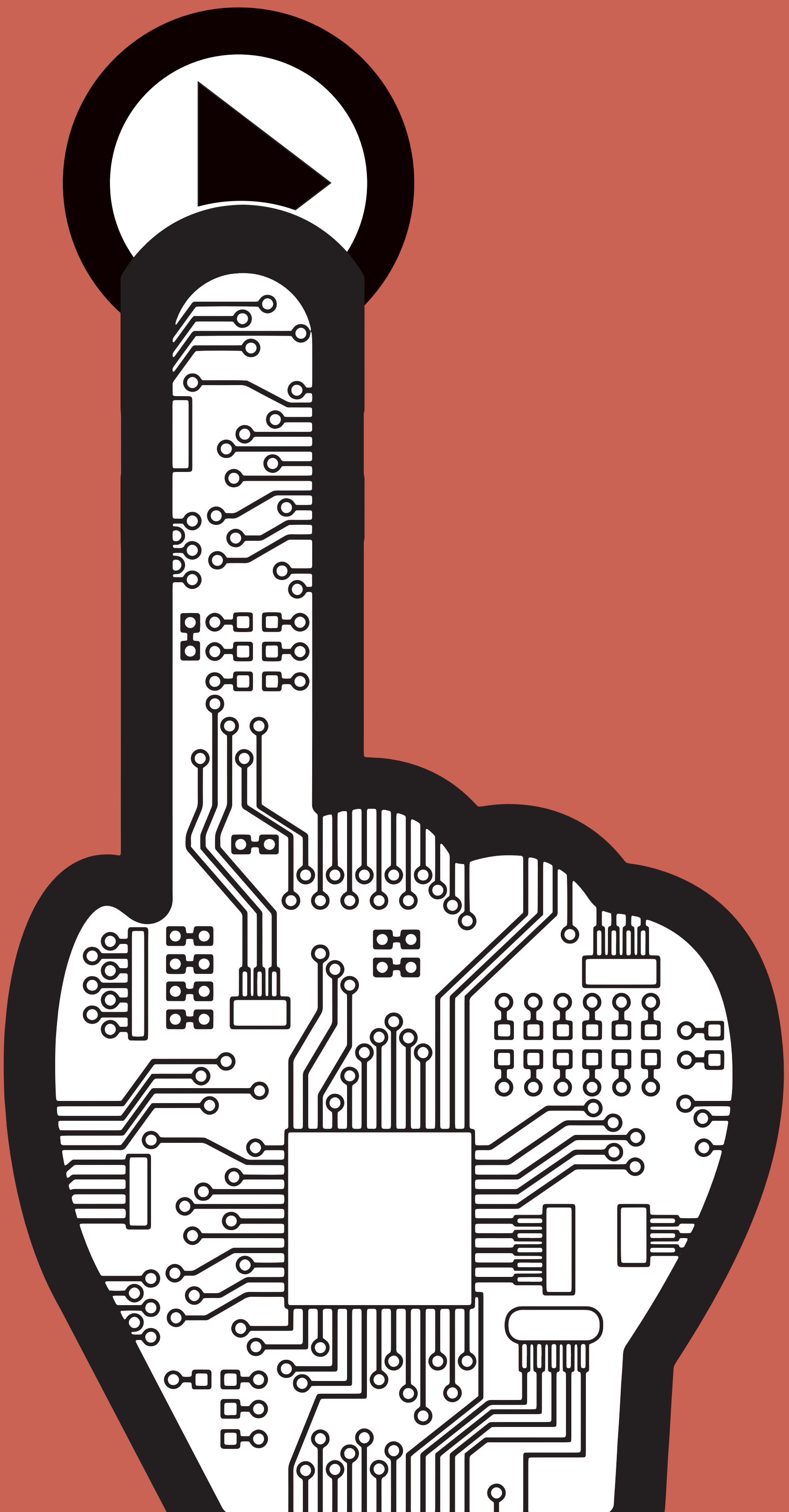
Continued processing by the customer is also accelerated by means of improvements made at Vossloh, which in turn contributes to an improvement of their profitability. Along with the traditional manufacturing of tension clamps, plastic components and *cellentic* components for the rail fasteners will also be manufactured at this location in the future. In addition, new and innovative products and concepts are constantly being developed at Vossloh headquarters. This makes it possible for us to create new opportunities for our highly qualified workforce over the long term, provide them with professional development and keep them in the Company.

The factory of the future in Werdohl stands next to the technology center we inaugurated in 2011. This close proximity will lead to innovative technologies being developed that can then be multiplied in a second step so that they can be used at other locations worldwide.

This increased vertical integration substantially shortens the supply chain and speeds up response times in projects. The renovation will be accompanied by the introduction of digital processes: E-commerce, process control, automation technology, traceability including online delivery of quality data. Ultimately, data and analyses from infrastructure condition monitoring will provide crucial momentum for the development of new product ideas and designs in the future, as well as future functional expansions.

Our production processes of the future are close to the customer, deliver quickly and protect the climate.

Project Future.



Grasping the future. Shaping the future.

Expanding infrastructure costs a great deal of time and money. There is, however, no way around the rail as sustainable means of transportation. The advantages in transport capacity in relation to the area required are immense. In light of this, it is all the more important to ensure that existing routes remain 100 percent available – at reasonable costs. The interaction between long-lasting and low-maintenance components and the possibilities of digitalization has already created numerous opportunities to gradually permeate the necessary areas and ultimately achieve the objective for the long term. Preventative rail maintenance, modern sensors for railway monitoring, supporting and learning applications, highly mobile networked maintenance machinery and many other technologies are available. Even though the rail industry only started building up its trove of data a few years ago, this critical process of ensuring indispensable condition monitoring and diagnostics has already rapidly picked up speed.

With the increasing amount of condition data, identifying relevant information in this flood of data is becoming a matter of decisive importance.

The key is knowledge about rail as a mode of transport. Reflected in the diversity of its range of products and services, Vossloh possesses uniquely broad knowledge of all components of the railway – under a single roof. This capability is what makes us the first port of call for network operators. With our business model, we are able to meet the needs of operators, from A to Z, with tailor-made solutions: from long-lasting, low-maintenance products and solutions to the supply, understanding and evaluation of data, and onwards to the recommendation and actual implementation of maintenance measures.

"The Smart Rail Track by Vossloh" is our detailed vision for the intelligent railway that enables disruption-free operation and increases the lifespan of infrastructure. Unimpeded travel, punctual trains, safe and quiet operation – this is how we see the future that we are already shaping today.

Ulrich M. Harnacke,
Deputy Chairman of the Supervisory Board

Supervisory Board of Vossloh AG

Dr.-Ing. Volker Kefer *(until March 4, 2019), Chairman, former Deputy CEO of Deutsche Bahn AG, Erlangen*

Ulrich M. Harnacke, *Deputy Chairman, auditor and tax adviser, Mönchengladbach*

Prof. Dr. Anne Christine d'Arcy *(since May 9, 2018), University Professor for Corporate Governance and Management Control, Vienna, Austria*

Dr. Bernhard Düttmann *(since May 9, 2018), independent corporate consultant and interim member of the Executive Board of Ceconomy AG, Meerbusch*

Andreas Kretschmann, *social security employee, Chairman of the Works Council of Vossloh Fastening Systems GmbH, Neuenrade*

Dr.-Ing. Wolfgang Schlosser *(until May 9, 2018), consultant and former Managing Director of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, Puchheim*

Michael Ulrich, *machinist, Chairman of the Works Council of Vossloh Locomotives GmbH and Chairman of the European Works Council and of the Group Works Council, Kiel*

Ursus Zinsli *(until May 9, 2018), Vice President of the Administrative Board of Furrer + Frey AG and former Managing Director of Scheuchzer SA, Saint-Sulpice, Canton of Vaud, Switzerland*

Report of the Supervisory Board

Dear shareholders,

Once again in the 2018 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 strategy, planning, business development, the risk situation and developments, and compliance on a comprehensive and timely 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/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 propriety 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 resolutions 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 draft resolutions and granted the necessary approval.

The Supervisory Board was also informed of significant events by the Executive Board between meetings. In addition, there was a regular exchange of information between the Chairman of the Supervisory Board and the CEO. 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 and the overall situation of the Company and the Group.

Focus of the meetings

In the year under review, the Supervisory Board convened for four ordinary meetings on March 21, May 8, September 28 and November 26. All ordinary Supervisory Board meetings were attended by all of the members of the Supervisory Board. Extraordinary meetings were held on February 14, May 9, July 25 and December 10 and 19, 2018. The Executive Board members attended the Supervisory Board meetings unless the Chairman of the Supervisory Board specified otherwise.

In all the meetings in the past year, the Supervisory Board and Executive Board dealt extensively with the Company's largely completed process of focusing on rail infrastructure and the further development of the Vossloh Group. In addition, the Executive Board reported on the business situation in all the meetings and provided detailed information regarding the development of sales and earnings in the individual business units, on business development opportunities and risks and on key managing measures. The Supervisory Board also continually addressed the status of the regulatory and civil proceedings relating to earlier anticompetitive agreements, compliance issues and the ongoing development of the Vossloh Compliance Management System. The Supervisory Board also focused on the following issues in the individual meetings:

In the extraordinary meeting on February 14, 2018, the Supervisory Board deliberated on the strategy of the Vossloh Group for the entire day, particularly in regard to the opportunities and plans for organic and inorganic growth. A particular focus was placed on digital technologies and the subject of smart rail track. The meeting also addressed Vossloh's capital market communications.

The balance sheet meeting on March 21, 2018, considered in particular the separate and consolidated financial statements for 2017 as well as the agenda and the draft proposals for the Annual General Meeting on May 9, 2018. The Supervisory Board also discussed Vossloh Locomotives, the status of the planned sale, and the subject of innovations in detail. The results of the audit of the appropriateness and effectiveness of the Vossloh Compliance Management System performed by KPMG in 2017 and the results of the efficiency review of Supervisory Board activities were also discussed.

On May 8, 2018, two investment plans were on the agenda along with the regular reporting subjects and Vossloh Locomotives. Vossloh is making investments towards a new tie plant in British Columbia in connection with a framework agreement won with the Canadian rail operator Canadian National as well as expanding the switch plant in Memphis, Tennessee for the same purpose. The Supervisory Board approved the plan after careful consultation. The meeting also served as a preliminary discussion of the Annual General Meeting.

At the extraordinary inaugural meeting on May 9, 2018, following the Annual General Meeting, Dr.-Ing. Kefer was elected the Chairman of the Supervisory Board, Mr. Harnacke became his deputy and the members of the individual committees were selected.

At an extraordinary meeting on July 25, 2018, the Supervisory Board intensively addressed the acquisition of the Australian market leader for concrete ties, Austrak Pty Ltd. The acquisition held high strategic importance for Vossloh in combination with existing business in Australia. After careful review, the Supervisory Board consented to the acquisition. The Supervisory Board approved a capital increase for the Chinese joint venture for switch manufacturing in Wuhu as well.

At the meeting on September 28, 2018, the Supervisory Board consented to, among other things, the Executive Board's proposal to further expand the bundled service business in the Lifecycle Solutions division through the acquisition of the rail milling business of STRABAG Rail GmbH following intensive review and discussion. The acquisition strengthens Vossloh's rail and switch processing business and contributes to the consistent expansion of Vossloh Rail Services into a comprehensive maintenance provider. In addition to discussing other M&A-related subjects, the Supervisory Board also made an adjustment to the Executive Board's Rules of Procedure.

At its final ordinary meeting of the year on November 26, 2018, the Supervisory Board dealt intensively with the business development in the past fiscal year as well as planning for the years 2019 through 2021. The Supervisory Board approved the budget for 2019 following an in-depth examination and discussion with the Executive Board. The agenda also included M&A-related subjects, including the planned sale of Vossloh Locomotives, the tender and selection procedure for the 2019 financial statement audit and the adoption of the 2018 declaration of conformity with the German Corporate Governance Code.

Two extraordinary meetings of the Supervisory Board also took place on December 10 and 19, 2018, in which the Supervisory Board addressed a potential acquisition plan as well as the strategic orientation of the individual business units in this context in detail. As a precautionary measure, Dr.-Ing. Kefer did not participate in these two extraordinary meetings due to a potential conflict of interest posed by his consulting activities for a competitor in the area of the acquisition under consideration.

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, the Supervisory Board has also transferred 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.

As in the previous year, the Audit Committee convened for six meetings in the 2018 fiscal year. All the Audit Committee meetings were attended by all of the committee members. The Executive Board is usually present in full at these meetings. Most of the meetings are also attended by representatives of the auditor and the heads of Accounting, Controlling and Legal Affairs & Compliance.

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) and the proposal for the appropriation of net earnings.

Following an extensive discussion in the presence of the auditor based on the auditor's reports on the audit of the annual financial statements of Vossloh AG and the Vossloh Group and of the combined management report, the Audit Committee decided to recommend the approval of the consolidated financial statements, the financial statements of Vossloh AG and the combined management report for the 2017 fiscal year to the Supervisory Board during its meeting on March 21, 2018. At its meetings on April 25, July 31 and October 23, 2018, 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 the Supervisory Board on March 21, 2018, to appoint an auditor, and subsequently awarded auditing responsibility to the auditor elected by the Annual General Meeting and determined the focal points of the audit and the auditor's remuneration. The committee also monitored the auditor's independence. The auditor may only be contracted to perform nonaudit services subject to the prior mandatory approval of the Audit Committee. An additional major task of the Audit Committee in the past fiscal year was the preparation and implementation of a tender and selection procedure for the selection of a suitable auditor for the Company and Group for the 2019 fiscal year on behalf of the Supervisory Board. The Audit Committee initiated a tender and selection procedure in accordance with EU rules in July 2018, obtained offers, held discussions with the auditors under consideration and negotiated the conditions of a commission. The Audit Committee presented the results of the tender and selection procedure to the plenary Supervisory Board on November 26, 2018, and submitted a justified recommendation for the election proposal to the Annual General Meeting for the 2019 auditor.

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 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. 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. In addition, the Audit Committee dealt extensively with the Company's internal control system. The meeting on November 26, 2018, included a report to the Audit Committee from the Internal Audit department.

The Nomination Committee convened once in the course of the 2018 fiscal year. The subject of the meeting on March 21, 2018, was the preparation of election proposals for the Supervisory Board elections by the Annual General Meeting on May 9, 2018. The Personnel Committee did not convene in 2018. Relevant topics were discussed and resolved during plenary sessions.

Personnel changes on the Supervisory Board and Executive Board

There were changes on the Supervisory Board in the year under review. Dr.-Ing. Schlosser and Mr. Zinsli did not stand as candidates due to the existing standard age limit of 70 years. As proposed by the Supervisory Board, the Annual General Meeting elected Prof. Dr. d'Arcy and Dr. Düttmann as new members of the Supervisory Board on May 9, 2018. The other Supervisory Board members representing the shareholders and employees were each elected for an additional term of office in 2018. At the extraordinary Supervisory Board meeting following the Annual General Meeting, Dr.-Ing. Kefer was confirmed in his role as Chairman of the Supervisory Board and Mr. Harnacke was confirmed as his deputy. The Supervisory Board extends its thanks to the retiring members, Dr.-Ing. Schlosser and Mr. Zinsli, for their many years of capable and committed support in the Supervisory Board.

No changes to the Executive Board took place during the year under review.

Dr.-Ing. Kefer resigned from his position as a member of the Supervisory Board for personal reasons on March 4, 2019, after the end of the year under review. The Supervisory Board extends its thanks to Dr.-Ing. Kefer for his good and trustworthy work. Mr. Harnacke, the Deputy Chairman of the Supervisory Board, has been acting as the Chairman of the Supervisory Board since then.

Corporate Governance and Declaration of Conformity

The Supervisory Board attaches great importance to ensuring there is good corporate governance. At its meeting on November

26, 2018, the Supervisory Board considered the recommendations of the German Corporate Governance Code 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 website (see also page 35 of the annual report). Vossloh AG complies with all the recommendations of the German Corporate Governance Code as amended on February 7, 2017. Details of corporate governance within the Company can be found in the Declaration on Corporate Governance (pages 32 to 36 of the annual report).

Separate and consolidated financial statements for 2018

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 2018 fiscal year, including the accounting, were examined by the auditor duly appointed by the Annual General Meeting on May 9, 2018, KPMG AG Wirtschaftsprüfungsgesellschaft based in Berlin (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) 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 financial statements including the nonfinancial Group statement (Section 315b 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 27, 2019, to approve the financial statements.

During the meeting, the auditors 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 auditors. The auditors also reported on the Vossloh Group's risk management system. The auditors additionally heard, read and acknowledged other information including the Declaration of Conformity in accordance with Section 161 AktG, the Declaration on Corporate Governance 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 an audit firm to perform a voluntary audit of the content of its nonfinancial Group statement (Section 315b HGB), which did not result in 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 2018 fiscal year, the dependent company report including the Executive Board's closing statement, the nonfinancial Group statement (Section 315b HGB) 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, 2018. The annual financial statements were thus adopted on December 31, 2018. 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 (1) and 315a (1) of the German Commercial Code (HGB), and with the dependent company report. The Supervisory Board approved the Executive Board's proposal for the appropriation of the 2018 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 the employees of the Vossloh Group for their dedication and successful service in the past fiscal year.

Werdohl, March 27, 2019

The Supervisory Board
Ulrich M. Harnacke
Deputy Chairman

Declaration on Corporate Governance/ Corporate Governance Report

The following Declaration on Corporate Governance in accordance with Sections 289f (1) and 315d HGB also includes the corporate governance report pursuant to number 3.10 of the German Corporate Governance Code.

Management and control structure

Vossloh AG is subject to the provisions of Germany's Stock Corporation Act (AktG), capital market legislation and codetermination laws 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 its Chairman, Mr. Andreas Busemann is responsible not only for coordinating the work of the Executive Board members, but also for HR, M&A and Company Development, and Innovation and Development. He also handles the focus markets of North America and Russia. The Chief Financial Officer, Mr. Oliver Schuster, is responsible for Accounting, Controlling, Treasury, Taxes, Internal Audit, Legal Affairs, Compliance, IT, Media Relations, Marketing Communication and Investor Relations. Mr. Volker Schenk is responsible for Sales, Association Activities and EHS/Sustainability, and also oversees the focus markets of Western Europe and China. The members of the Executive Board are also involved in the operations of the individual divisions. Mr. Busemann is responsible for the Core Components and Transportation divisions, Mr. Schuster for the Lifecycle Solutions division and Mr. Schenk for the Customized Modules division.

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 divisions. 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 or the assumption of external Supervisory Board positions require the prior approval of the Supervisory Board.

More information on the members of the Executive Board of Vossloh AG can be found on page 154 of this annual report.

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 law regarding the equal participation of women and men in executive positions in the private sector and in public service and also the age limit stipulated for members of the Supervisory Board in the Rules of Procedure. Mainly because of the size of Vossloh AG's Executive Board, a more extensive diversity concept stipulating requirements regarding career paths and education is not in place for the Executive Board. Executive Board members are selected on the basis of a systematic search, which focuses in particular on expertise and personality, and numerous other features.

Vossloh AG has concluded D&O insurance policies against economic loss for all of its 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 Germany's One-Third Participation Act (DrittelbG) and the Stock Corporation Act (AktG). Two thirds of its members are shareholder representatives and one third is made up of employee representatives. In accordance with the recommendations of the German Corporate Governance Code, 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 can be found on page 155 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 and decides on the adoption of the annual financial statements of Vossloh AG and approval of the consolidated financial statements. 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.

The Supervisory Board most recently stipulated concrete targets for its composition at its meeting on September 28, 2017, and developed a 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. Based on legislation regarding the equal involvement of women and men in executive positions in the private sector and in public service, the Supervisory Board set itself a target of at least 16.67 percent (one member) for the target period up to June 30, 2022. This goal was achieved again with the election of Prof. Dr. Anne Christine d'Arcy to the Supervisory Board by the Annual General Meeting on May 9, 2018.

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 and the duration of board tenures. The Supervisory Board meets these requirements and objectives with its current composition. Specifically, the Supervisory Board members have the necessary professional and personal qualifications. Regarding independence, the Supervisory Board determined that, taking into account the Vossloh owner structure, at least half of the Supervisory Board should comprise independent members within the meaning of number 5.4.2 of the German Corporate Governance Code. The Supervisory Board concludes that as of December 31, 2018, all the Supervisory Board members were deemed independent within the meaning of number 5.4.2 of the Code. The election proposals put to the Annual General Meeting by the Supervisory Board are to accommodate the "Requirements and Objectives for the Composition of the Vossloh Aktiengesellschaft 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 Personnel Committee comprises three members and is primarily 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 is also Chairman of the Personnel Committee.

The Audit Committee is first and foremost responsible for monitoring accounting, the accounting process, the 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 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 also obtains regular reports directly from the Internal Audit department and the Chief Compliance Officer. The Audit Committee, which comprises three members, is chaired by Mr. Ulrich M. Harnacke. Mr. Harnacke is a tax adviser and auditor and the former managing director of Deloitte & Touche GmbH. As a financial expert, he meets the requirements stipulated in Section 100 (5) AktG.

The four-person Nomination Committee is responsible for long-term succession planning for the Supervisory Board and for preparing candidate proposals for the Supervisory Board. 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 Dr.-Ing. Volker Kefer.

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. Supervisory Board members must abstain from voting on any business that affects themselves or related parties or companies. No member of the Supervisory Board received remuneration or benefits for personally rendered services in addition to their emoluments for their Supervisory Board activities. 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 history of over 130 years, 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 and liability risks. 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 and precisely defines the values of integrity and upstanding business conduct and is mandatory for the entire Group and all employees. The Code of Conduct was comprehensively revised and enhanced in 2016. With this and the compliance guidelines, which apply equally throughout the Group and were likewise revised in 2016, 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 the 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 21 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 Chief Compliance Officer and the Group Compliance Committee continually review the effectiveness throughout the Group of the Compliance Management System. In the 2017 fiscal year, the Vossloh Group's Compliance Management System was subjected to a comprehensive audit in accordance with Assurance Standard 980 of the Institute of Public Auditors in Germany (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. Insofar as findings and recommendations were stated regarding compliance work, they have been and will be implemented in the course of the ongoing development and improvement of the Compliance Management System. Vossloh has published the audit report on the Company website under "Corporate Governance" > "Compliance" in the "Investor Relations" section. A review of compliance risks and a survey of 215 managers and employees (primarily from sales and procurement) on the effectiveness and acceptance of the Compliance Management System carried out in the 2018 fiscal year with the assistance of KPMG once again confirmed the previous risk assessment as well as the high level of effectiveness and acceptance of the Compliance Management System.

The Group Compliance Committee additionally performs regular general audits, usually with the assistance of external auditors, in order to check the 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 responsible business risk management. 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. 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 (from page 83). This also includes the report on the accounting-related internal control and risk management system.

Declaration of Conformity

Once again in 2018, 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 2018:

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

Vossloh Aktiengesellschaft has complied with all the recommendations of the German Corporate Governance Code ("the Code") published by the Federal Ministry of Justice in the Official Section of the Federal Gazette as per February 7, 2017, and will continue to do so in the future.

Werdohl, November 2018
Vossloh Aktiengesellschaft
The Executive Board/The Supervisory Board

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 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 intercompany agreements, corporate action and other amendments to the Articles of Incorporation. 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 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 timely 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 circumstances arise at Vossloh outside of the regular reporting that directly affect Vossloh and have the potential to significantly influence the stock market price of the Vossloh share, these are immediately made known by means of ad hoc disclosures (Section 17 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 German Commercial Code (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 KPMG AG 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 2018 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 German Corporate Governance Code 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 would make its Declaration of Conformity with the German Corporate Governance Code incorrect. However, 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, 2018, 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 legislation on the equal involvement of women and men in executive positions in the private sector and in public service (for information on the targets for the Supervisory Board, see the "Supervisory Board" section above).

On May 23, 2017, 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 June 30, 2022. There are currently no plans for Executive Board changes or expansions.

On May 19, 2017, the Executive Board set targets of 25 percent for both the first and second management levels below the Executive Board, to be achieved by June 30, 2022. Both of these targets were achieved on December 31, 2018.

Executive Board and Supervisory Board remuneration

The Supervisory Board approves and regularly reviews the Executive Board's remuneration system. The remuneration structure is geared toward sustainable corporate development. A multiyear assessment basis has been agreed for the majority of the variable remuneration. The total remuneration of the individual Executive Board members is determined by the Supervisory Board. This takes into account the individual members' duties, their personal performance, the economic situation, the Company's success and future prospects and how customary the remuneration is when compared horizontally and vertically, as well as the development of these individual criteria. The system in effect for the remuneration of Executive Board members, which was revised in the 2017 fiscal year, was approved by the Annual General Meeting on May 9, 2018. Since 2014, Supervisory Board remuneration has been purely fixed remuneration; this is regulated in the Articles of Incorporation of Vossloh AG. More information on Executive Board and Supervisory Board remuneration can be found in the remuneration report starting on page 53, which is part of both the combined management report and this Declaration on Corporate Governance.

Combined management report

Business and market environment

Segmentation and competitive position

Vossloh is active in rail technology markets worldwide. Vossloh's core business comprises products and services for rail infrastructure. The core 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 two other divisions encompass one business unit each: Vossloh Switch Systems belongs to Customized Modules, and Vossloh Rail Services belongs to Lifecycle Solutions. The company Austrak Pty Ltd., based in Brisbane, Australia, was acquired on November 30, 2018, and has been integrated into the Tie Technologies business unit. The rail milling business acquired from STRABAG Rail GmbH in Berlin, Germany, on December 21, 2018, has been integrated into the Rail Services business unit. In addition, Vossloh is involved in the locomotive business. Vossloh Locomotives is the last remaining business unit of the Transportation division, which is reported as discontinued operations. You can find detailed descriptions of the individual core business areas on page 47 et seq.

The Company holds the following competitive positions in its core business of rail infrastructure:
- Vossloh is a leading global supplier and technological innovator in rail fastening systems.
- Vossloh is a global market and technology leader in the switches segment.
- In Germany, Vossloh is a leading supplier of innovative technologies and services for the entire lifecycle of rails and switches.
- In North America and Australia, Vossloh is a leading manufacturer of concrete ties.

Organization

The Vossloh Group is active around the world. Local presence and customer proximity are integral elements of the business model. Vossloh's most important production sites for rail fastening systems are located in Germany, China, Poland, the USA and Russia. Vossloh's switch systems are manufactured primarily in France, the USA, Sweden, Australia, Luxembourg, Poland, Finland and the United Kingdom. Rail services are mainly carried out from Germany. The concrete ties of the Tie Technologies business unit are produced in the USA and Mexico and by Austrak Pty Ltd. in Australia, which has been part of the Group since December 2018. The production plant for the locomotive business, which does not belong to the core business and is reported as discontinued operations, is located in Germany.

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,
- Vossloh Rail Services GmbH, Hamburg, Germany, for the Lifecycle Solutions division.

Vossloh Locomotives GmbH, Kiel, Germany, has this function in the Transportation division, which is not part of the core business and is classified as discontinued operations.

Controlling system and targets

The most relevant financial performance indicators for the Vossloh Group are value added, sales and EBIT as well as EBIT margin. 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 is focused on value added. Value added is disclosed as a control-relevant earnings indicator for the divisions and business units as part of external reporting.

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, see term in glossary, page 165) and the cost of capital, which is calculated as the weighted average cost of equity and debt. Multiplying the premium by average capital employed produces the value added over a period in absolute terms. For internal controlling purposes, ROCE and value added are determined before taxes.

Cost of equity results from a risk-free interest rate plus a market risk premium. The interest rate factor is adjusted accordingly on the basis of the pre-tax consideration. Cost of debt is calculated on the basis of the Group’s average financing terms. The ratio of equity to interest-bearing debt of two-thirds to one-third, which is used to determine WACC, is not derived from the balance sheet since it is not only based on a target for the funding structure but also because equity is based on target market values in this case and not the carrying amounts recognized in the balance sheet. A weighted average cost of capital before taxes (WACC) of 7.5 percent was used as the yield expected by investors and lenders for the purposes of intragroup controlling in the 2018 fiscal year and 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 additionally focuses on working capital, working capital intensity (see glossary, page 165) and free cash flow.

To the management of Vossloh AG, the monthly financial reporting represents 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 consolidated Group companies are consolidated and analyzed in the same way as the monthly annual forecast. Deviations are investigated in relation to their effects on the financial targets. The monthly and quarterly annual projections are supplemented by a risk report to identify potential reductions and increases in assets. The effectiveness of measures aimed at ensuring targets are reached is continuously analyzed. The figures of the operating units are intensively discussed by their respective management and the Executive Board with the involvement of the relevant central departments of Vossloh AG. The close, personal interaction between the Executive Board of Vossloh AG and the management of the operating units guarantees a rapid flow of information and allows for quick responses.

Economic report

Economic environment

From a global perspective, the rail technology market has shown a steadily growing trend for years. This is the result of rising demand around the world for environmentally friendly, safer and more economical mobility for people and goods. The driving forces for this development include, among other things, megatrends such as population growth, urbanization, the increase of international trade flows and increasing environmental awareness. In addition, the industry itself is undergoing a profound transformation due to digitalization, automation and artificial intelligence, but also due to the standardization and liberalization of rail transport. At the same time, competitive pressure has been rising, also as a result of new players on the market.

A number of studies regularly analyze developments in the global rail technology market. The most important of these publications are the World Rail Market Study, published by the Association of the European Rail Industry (UNIFE), and the Worldwide Market for Railway Industries, published by the consultancy firm SCI Verkehr. Both studies are updated in a two-year cycle; the most recent results were presented in September 2018 at the InnoTrans trade fair in Berlin.

According to UNIFE, the current global volume of the rail market is around €163 billion per year. SCI Verkehr estimates an annual volume of €183 billion. The Association of the European Rail Industry (UNIFE) considers about 63 percent of the total volume – some €103 billion – to be an accessible market share. Accessible means that this market is accessible in principle to European suppliers and market demand is not exclusively met through domestic manufacturers.

Vossloh’s core business consists of products and services for rail infrastructure. The market segments of infrastructure and infrastructure services are therefore of particular importance for the Vossloh Group. In total, this market amounted to approximately €27 billion per year for the period from 2015 to 2017 according to UNIFE data.

In its core business, Vossloh is globally active in the markets for switches and rail fastening systems. The Lifecycle Solutions division is also becoming increasingly active on the international stage. The Tie Technologies business unit is active primarily in North America, as well as in Australia through the recent acquisition, Austrak Pty Ltd. The primary focus of the Group is on the defined focus markets of Western Europe, North America, China and Russia.

Viewing the relevant accessible market segments for Vossloh (infrastructure and infrastructure services) from a regional perspective, roughly 34 percent of market volume is currently accounted for by Western Europe and approximately 33 percent by NAFTA countries (USA, Canada, Mexico) according to UNIFE data. These are followed by the Asia Pacific region with roughly 13 percent, Eastern Europe with 8 percent and Africa/Middle East with 5 percent. Markets in Latin America and in the Commonwealth of Independent States (CIS), at approximately 4 percent and 3 percent respectively, account for smaller portions of the accessible market volume.

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 majority of the Group’s clients are public-sector customers. In Southern Europe in particular, the severely impaired financial strength of public-sector budgets has had a negative impact on demand for products and services for rail infrastructure since 2009. As of the third quarter of 2018, the debt ratio (the ratio of public debt to GDP) of the euro countries (ER-19) according to the statistics office of the European Union (Eurostat) was at 86.1 percent – as of the editorial deadline of this publication, this was the most current figure available. This time last year, this figure was 88.2 percent. At the end of September 2018, the debt ratio of the entire EU (EU 28) was 80.8 percent, compared to 82.5 percent in the previous year.

Business acquisitions

After the contract for the purchase of all shares of Austrak Pty Ltd., Brisbane, Australia, was signed on August 3, 2018, the purchase was completed on November 30, 2018, once all of the necessary closing conditions had been fulfilled, including the merger control clearance by the Australian authorities. Austrak Pty Ltd. develops, produces and distributes concrete ties in Australia. The company is therefore a part of the Tie Technologies business unit. This acquisition expands the Company's product portfolio in the Australian market by concrete ties and increases Vossloh's vertical integration in the Australian rail infrastructure business.

On October 31, 2018, a contract was signed with STRABAG Rail GmbH for the transfer of the rail milling business, which was completed on December 21, 2018. The acquired business is being integrated into an existing company in the Rail Services business unit, and significantly expands the existing milling business in this business unit. The central element of the acquired operational unit is four milling machines and existing contractual relationships; 30 new employees have also joined the Vossloh Group.

Results of operations

The Locomotives business unit, the last remaining business unit of the Transportation division, is still reported under discontinued operations in the balance sheet as of December 31, 2018. All assets and liabilities from this division are each reported in a separate line item in the balance sheet. The division is expected to be sold in the near future. All expenses and income that originate from the companies to be sold or which are incurred in connection with the sale are reported in the income statement in the line item "Result from discontinued operations". In addition, the item "Result from discontinued operations" also includes the expenses and income from business operations in connection with the sale of the former Electrical Systems and Rail Vehicles business units. Further information can be found in the notes to the consolidated financial statements under "(7) Result from discontinued operations" on page 116 et seq. The following depiction thus encompasses the consolidated results of operations of the core business rail infrastructure.

In the 2018 fiscal year, both sales and EBIT fell below the previous year's level. This was, as expected, primarily attributable to a weaker business development in China for project-related reasons in the Core Components division. Sales for 2018, at €865.0 million, amounted to 5.8 percent less than the previous year's value of €918.3 million. A negative effect was also incurred from the translation of foreign currencies, which burdened sales with €18.7 million in comparison with the previous year. In the most recently communicated forecast, sales near the lower boundary of the originally forecast range of €875 million and €950 million had been expected.

Vossloh Group – Sales by region

	€ mill.	%	€ mill.	%
	2018		2017	
Germany	85.7	9.9	74.3	8.1
France	102.0	11.8	97.8	10.6
Rest of Western Europe	67.3	7.8	69.6	7.6
Northern Europe	111.6	12.9	114.5	12.5
Southern Europe	77.2	8.9	62.9	6.9
Eastern Europe	86.7	10.0	56.4	6.1
Total of Europe	**530.5**	**61.3**	**475.5**	**51.8**
Americas	159.5	18.5	158.7	17.3
Asia	132.2	15.3	215.6	23.5
Africa	19.3	2.2	46.3	5.0
Australia	23.5	2.7	22.2	2.4
Total	**865.0**	**100.0**	**918.3**	**100.0**

Significant increase in sales in Europe, particularly in Eastern and Southern Europe

In Europe, sales for the year under review were 11.6 percent higher than the previous year. This was primarily attributable to higher sales revenues in Eastern and Southern Europe. The 53.7 percent increase in sales in Eastern Europe was driven mainly by business in Poland. The Customized Modules division made a particularly significant contribution, with the Fastening Systems business unit contributing to a lesser extent. Vossloh Fastening Systems was also able to significantly increase sales, particularly in the focus market of Russia. The 22.7 percent increase in Southern Europe, particularly in Italy and Turkey, was also attributable to the Fastening Systems business unit and the Customized Modules division. Significant sales increases of 15.3 percent were also recorded in Germany, primarily by the Lifecycle Solutions division. Sales in France were also higher than the previous year (+4.4 percent), due to the Customized Modules division. Only in Northern Europe sales were unable to reach the previous year's level, due to the declining business of the Customized Modules division in Norway ((2.6) percent).

Sales in the Americas at the previous year's level

In the Americas, sales remained at roughly the same level as the previous year overall with slight growth of 0.5 percent. Substantial additional sales were achieved in Canada in the Tie Technologies business unit and Customized Modules division. As a result of the persistently challenging market environment as well as exchange rate effects, sales in the U.S. fell below the previous year in the Tie Technologies business unit and the Customized Modules division. Vossloh Group sales in South America were largely unchanged from the previous year.

Sales in Asia significantly lower than previous year as expected

As expected, sales in Asia fell significantly below the previous year's high figure ((38.7) percent). This was almost entirely due to the lower sales of the Fastening Systems business unit for project-related reasons in the focus market of China. The sales performance of the Fastening Systems business unit in Saudi Arabia also contributed to the downturn to a lesser extent. In contrast, additional sales were recorded in Thailand in particular, likewise in the Fastening Systems business unit.

Sales in Africa significantly lower than previous year

In Africa, the Vossloh Group's sales did not reach the previous year's level ((58.4) percent). Lower sales by the Customized Modules division in Morocco were a decisive factor in this development. In contrast, sales in Senegal and Egypt increased in the Customized Modules division as well as for Vossloh Fastening Systems.

In Australia, where the Customized Modules division has historically accounted for the most activity, sales were slightly increased in comparison with the previous year. The increase can be attributed to the first-time inclusion of the new Group company Austrak Pty Ltd. in December.

The Vossloh Group's cost of sales in the year under review was €678.7 million, thus falling below the previous year's figure of €713.2 million in line with the sales performance. The cost of sales accounted for 78.5 percent of revenue in the year under review (previous year: 77.7 percent). Selling and general administrative expenses totaled €144.4 million, slightly lower than the previous year's value of €148.1 million. Their share of sales revenue increased from 16.1 percent to 16.7 percent. The item "Other operating result" amounted to

€18.4 million and was therefore lower than the previous year's value of €21.5 million. In the year under review, this item included income from negative goodwill in connection with the acquisition of the rail milling business from STRABAG Rail GmbH, among other factors. The previous year's value had benefited particularly from a reversal of an impairment concerning the Chinese joint venture in the Customized Modules division.

Vossloh Group – sales and earnings

	€ mill.	%	€ mill.	%
	2018		2017	
Sales revenues	865.0	100.0	918.3	100.0
EBIT	54.2	6.3	70.3	7.7
EBT	40.8	4.7	57.8	6.3
Net income	22.7	2.6	0.3	0.0
Earnings per share (in €)	1.14		(0.50)	

As anticipated, the earnings before interest and taxes (EBIT) of the Vossloh Group were 22.9 percent lower than the previous year. This was primarily attributable to the Core Components division, particularly project-related lower sales in the Fastening Systems business unit in China. EBIT for the Customized Modules division was also lower than the previous year after the absence of the positive effect of €6.1 million from the reversal of an impairment related to the Chinese joint venture. In contrast, the Lifecycle Solutions division recorded a significant increase in EBIT due to a positive one-time effect amounting €5.5 million in 2018. The translation of foreign currency transactions had a negative overall impact on the Vossloh Group's EBIT in comparison with the previous year (€(1.4) million). The EBIT margin totaled 6.3 percent (previous year: 7.7 percent). As most recently communicated, EBIT was thus at the lower end of the originally forecast range of between 6.0 and 7.0 percent.

The net interest result in the 2018 fiscal year amounted to €(13.4) million, lower than the previous year's value of €(12.5) million. In the previous year, interest income benefited primarily from interest on the purchase price from the sale of the former Electrical Systems business unit. Interest expenses, on the other hand, decreased during the year under review despite higher currency translation losses in connection with financing activities as a result of substantially lower financing costs. Earnings before taxes (EBT) were overall lower than the previous year due to the lower EBIT and net interest result.

Result from discontinued operations significantly improved, earnings per share substantially higher than previous year

Income taxes for the Vossloh Group totaled €16.0 million in the year under review, a decrease from the previous year's value of €21.7 million. The tax rate of 39.2 percent slightly increased in comparison with the previous year (37.6 percent). The result from discontinued operations of €(2.1) million marked a clear improvement relative to the previous year's value of €(35.8) million. In the previous year, the result was impacted by an impairment in accordance with IFRS 5 of roughly €26 million for Vossloh Locomotives. In addition, the result from discontinued operations improved during the year under review due to partial releases of risk provisions in connection with the sale of the former Rail Vehicles and Electrical Systems business units. The result from discontinued operations was once again burdened by the negative annual result of the Transportation division in the year under review.

As a result of the markedly improved result from discontinued operations, net income was substantially higher than the previous year. The share of the net income attributable to the shareholders of Vossloh AG amounted to €18.2 million in the year under review (previous year: €(8.0) million). With the average number of shares outstanding unchanged at 15,967,437, the earnings per share for the 2018 fiscal year amounted to €1.14 (previous year: € (0.50)).

Dividend proposal of €1.00 per share for 2018

The Executive Board and Supervisory Board of Vossloh AG propose a dividend of €1.00 per share for the fiscal year 2018 to the shareholders at the Annual General Meeting scheduled for May 22, 2019. In the previous year, a dividend of €1.00 per share was also distributed.

Vossloh Group – value management

€ mill.	2018	2017
Average capital employed	799.7	788.3
ROCE	6.8	8.9
Value added	(5.8)	11.1

Value added slightly negative

The return on capital employed (ROCE) was lower than the previous year primarily as a result of the lower EBIT, and to a very limited extent due to the slightly higher average capital employed. The ROCE was lower than the weighted average cost of capital (WACC) of 7.5 percent, which remained unchanged from the previous year, resulting in a slightly negative value added.

Vossloh divisions – orders received and order backlog

	Orders received		Order backlog	
€ mill.	2018	2017	2018	2017
Core Components	391.3	285.0	237.3	151.2
Customized Modules	504.6	513.0	345.7	309.2
Lifecycle Solutions	90.8	79.6	12.9	17.9
Vossloh AG/consolidation	(7.5)	(10.4)	(0.9)	(3.9)
Group	**979.2**	**867.2**	**595.0**	**474.4**

Orders received significantly higher for the Vossloh Group than previous year

Orders received by the Vossloh Group saw an encouraging improvement in the year under review. They substantially exceeded the previous year's level by 12.9 percent. The increase can be attributed primarily to the positive order situation of the Core Components division. The book-to-bill ratio, the ratio of orders received to sales, amounted to 1.13. The order backlog of the Vossloh Group was thus substantially higher at the end of the 2018 fiscal year as well. This was 25.4 percent higher than the reporting date value of the previous year, particularly due to a strong increase in the Core Components division.

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. Derivative financial instruments (see term in glossary, page 165) are used, among other things, 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 primarily due to acquisitions

The Vossloh Group's net financial debt increased substantially from €207.7 million at the end of 2017 to €307.3 million at the end of the 2018 fiscal year. The main drivers of this increase were the acquisitions of the Australian concrete tie manufacturer Austrak Pty Ltd. and the rail milling business of STRABAG Rail GmbH. The increase can also be attributed to dividend distributions, interest payments and negative free cash flow in 2018. Financial liabilities amounted to €356.5 million at the end of the 2018 fiscal year, and were thus higher than the corresponding figure for the previous year of €304.5 million. In the 2017 fiscal year, the Vossloh Group placed a Schuldschein loan of €250 million and concluded a new syndicated loan with a volume of €150 million. The ratio of net financial debt to EBITDA was agreed as a covenant. Compliance with the covenant must be proven every six months. More information about financing can be found in the "Liquidity risks" section on page 86 et seq. The total sum of cash, cash equivalents and short-term securities at the end of 2018 amounted to €49.2 million (previous year: €96.8 million).

Current financial liabilities totaled €88.6 million at the end of 2018, and were thus higher than the previous year's value of €55.7 million. The increase can primarily be attributed to the acquisitions of Austrak Pty Ltd. and the rail milling business of STRABAG Rail GmbH during the year under review, which were financed with the funds available from the syndicated loan. The scheduled repayment of the €50 million Schuldschein loan from 2013, which was also refinanced from utilizations of the syndicated loan, was carried out during the year under review as well.

For further information on the free credit lines of the Vossloh Group, see the notes to the consolidated financial statements, page 145.

Vossloh Group – development of cash flows

€ mill.	2018	2017
Cash flow from operating activities	37.6	24.5
Free cash flow	(19.0)	(22.3)

Free cash flow improved, but remains negative

Despite the lower EBIT, cash flow from operating activities increased markedly during the reporting year in comparison with the previous year. In the previous year, cash flow from operating activities was burdened by a pronounced buildup of working capital. In the year under review the change of working capital in the Vossloh Group had no significant influence on the amount of this indicator, primarily due to a significant decline of the Vossloh Locomotives business unit reported as discontinued operations. In contrast, investing activities by the Vossloh Group increased substantially. The free cash flow – defined as cash flow from operating activities less investments in intangible assets and property, plant and equipment as well as investments in companies accounted for using the equity method and plus cash inflows from dividends or the disposal of companies accounted for using the equity method – was only slightly higher than the previous year's value due to increased investing activities during the reporting year. Free cash flow also includes the figures of the Transportation division, which is recognized under discontinued operations.

Vossloh Group – Capital expenditure and depreciation/amortization

€ mill.	2018		2017	
	Capital expenditure	Depreciation/ amortization	Capital expenditure	Depreciation/ amortization
Core Components	17.2	16.3	12.7	17.6
Customized Modules	28.1	12.6	18.5	7.6
Lifecycle Solutions	14.9	6.1	8.6	6.7
Vossloh AG/consolidation	0.3	0.5	(0.3)	1.7
Group	**60.5**	**35.5**	**39.5**	**33.6**

The volume of capital expenditure within the Vossloh Group increased substantially during the year under review by 53.1 percent, which also placed it substantially higher than the level of depreciation/amortization. Elevated capital expenditure activities were recorded by all divisions of the Vossloh Group. Capital expenditure was markedly higher than the previous year in the Customized Modules division, primarily due to the modernization of the production plant in Outreau in northern France. The new foundry there, in which switch frogs are manufactured from manganese, began operations in November of the year under review. The higher capital expenditure in the Core Components division was mostly connected to a framework agreement won with the North American Class-I rail company CN, for which a new concrete tie factory is being constructed in Canada. In addition to other projects, investments in the Lifecycle Solutions division went towards the development of the compact Multi Purpose Milling (MPM) machine, which can be used for both urban transport and conventional rail routes.

Asset and capital structure

Vossloh Group – asset and capital structure

		12/31/2018	12/31/2017
Total assets	€ mill.	1,265.4	1,252.9
Equity[1]	€ mill.	523.3	532.4
Equity ratio	%	41.4	42.5
Closing working capital	€ mill.	216.0	190.0
Fixed assets	€ mill.	646.1	568.7
Closing capital employed	€ mill.	862.0	758.7

[1] Group equity, including noncontrolling interests

Equity ratio remains high

At the end of the 2018 fiscal year, the equity of the Vossloh Group saw a slight 1.7 percent decrease compared to the corresponding reporting date value of the previous year. This development can be attributed primarily to dividend payments to Vossloh AG shareholders, changeover effects from the first-time application of IFRS 9 and IFRS 15, and distributions to minority shareholders. In contrast, net income had a positive effect on equity. Total assets as of December 31, 2018, remained virtually unchanged in comparison with the previous year. This resulted in a slightly lower equity ratio at the end of the reporting year, although this still remained above 40 percent.

The working capital as of the December 31, 2018, reporting date was 13.7 percent higher than the corresponding comparative figure from the previous year. This can primarily be attributed to an increase in working capital in the Core Components division. The average working capital during the year under review was €218.1 million, slightly higher than the previous year's value of €211.6 million. The capital employed as of the end of 2018 was significantly higher than the previous year's value. This rise was caused primarily by the substantially increased fixed assets of the Vossloh Group. It increased primarily due to the acquisitions of Austrak Pty Ltd. and the rail milling business of STRABAG Rail GmbH carried out in the 2018 fiscal year, as well as capital expenditure that substantially exceeded amortizations by 13.6 percent.

General statement on the economic situation

Vossloh's 2018 fiscal year was marked primarily by the weakened business development in the high-margin focus market of China for project-related reasons. This development was also the main driver for a lower EBIT and a lower EBIT margin in comparison with the previous year. The persistently challenging situation in the U.S. market also continued to influence Vossloh's business development. Orders received, on the other hand, experienced encouraging development, growing 12.9 percent in comparison with the previous year. A large portion of this increase can be attributed to major orders won for rail fastening systems in China, which underscore the persistently strong market position of Vossloh Fastening Systems in the Chinese market. In addition, the conclusion of multiyear framework agreements in the Customized Modules and Core Components divisions with the Class-I rail company CN in the North America focus market can be highlighted as another positive development. The book-to-bill ratio of the Group was 1.13 at the end of 2018. Major milestones were reached in the 2018 fiscal year in regard to the implementation of Vossloh's growth strategy with the acquisition of the market-leading Australian concrete tie manufacturer Austrak Pty Ltd. and the rail milling business of STRABAG Rail GmbH. The financial base is also in good condition, with a consistently high equity ratio. Given the prevailing conditions, the Vossloh Group can be said to have performed satisfactorily overall during the year under review.

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. In addition to concrete rail ties, the business unit also manufactures switch ties, concrete low-vibration blocks for slab track and crossing panels. Following the acquisition of Austrak Pty Ltd., Vossloh Tie Technologies has also held a market-leading presence in the Australian concrete tie business since December 2018.

Orders received significantly higher than in previous year

Orders received in the Core Components division during the reporting year totaled €391.3 million, a large increase of €106.3 million relative to the previous year's value of €285.0 million. These increases can be attributed primarily to the major orders for Vossloh Fastening Systems from China. The order backlog at the end of 2018 stood at €237.3 million, which is also significantly higher than the previous year (€151.2 million).

Core Components

		2018	2017
Sales revenues	€ mill.	292.6	351.4
EBIT	€ mill.	34.5	51.2
EBIT margin	%	11.8	14.6
Average working capital	€ mill.	72.7	67.7
Average working capital intensity	%	24.8	19.2
Average capital employed	€ mill.	226.2	225.0
ROCE	%	15.2	22.8
Value added	€ mill.	17.5	34.3

Book-to-bill ratio at 1.34

Sales revenues for the Core Components division fell significantly during the year under review. While the Tie Technologies business unit achieved sales at the previous year's level, sales for Vossloh Fastening Systems declined substantially due to temporarily weakened business in China. As a result of the encouraging development of orders received, the book-to-bill ratio of the Core Components division amounted to 1.34 for the fiscal year (previous year: 0.81).

Profitability once again in double digits, but markedly lower than the previous year as expected

As anticipated, the strong EBIT achieved by the Core Components division in the previous year could not be repeated, and stood €16.7 million below the value for 2017. The EBIT margin also declined accordingly, which was largely due to the weaker business in China in the Fastening Systems business unit. Despite a persistently challenging market environment in the U.S., the profitability of Vossloh Tie Technologies remained at a satisfactory level. Material prices were increased during the year under review by the U.S. import tariffs on steel, among other factors.

In line with EBIT, the ROCE for the Core Components division in 2018 remained lower than the previous year's above-average value. Despite the increase in average working capital, the average capital employed in the 2018 fiscal year remained at the previous year's level.

Substantial decrease in value added

Value added for the 2018 fiscal year fell substantially below the previous year's level. The sole decisive factor here was the lower EBIT during the reporting period. The average working capital intensity increased by 5.6 percent in comparison with the previous year, primarily as a result of reduced sales revenues.

Vossloh Fastening Systems

Orders received up 48.8 percent on the previous year

At €305.7 million, orders received at Vossloh Fastening Systems in 2018 were substantially higher than the previous year's figure of €205.5 million, an increase of 48.8 percent. This primarily reflects the three major orders won during the year in the high-speed segment in China with a cumulative volume of roughly €85 million. Significantly increased new orders were also recorded in Malaysia, Russia and Turkey. The order backlog at the end of 2018 stood at €191.1 million, €76.2 million higher than the previous year's final figure.

Sales revenues for Vossloh Fastening Systems in 2018 amounted to €216.9 million (previous year: €273.4 million). The decline can primarily be attributed to China; among other things, higher sales in Russia after the successful start of production and sales activities at our joint venture there and the inclusion of a Russian sales company were only able to compensate for this to a limited extent.

The book-to-bill ratio of Vossloh Fastening Systems stood at 1.41 (previous year: 0.75).

High positive value added once again

Although the value added of Vossloh Fastening Systems decreased from €37.7 million in 2017 to €21.4 million, it remained at a high level.

Vossloh Tie Technologies

The Tie Technologies business unit recorded orders received of €92.4 million in 2018, which represents an increase of €11.7 million over the previous year's value of €80.7 million. This increase can be attributed to orders received from the new framework agreement with CN in North America on the one hand, and the first-time inclusion of the Australian company Austrak Pty Ltd. on the other. High orders received were also recorded in Mexico, while the U.S. did not reach the previous year's level. The order backlog amounted to €50.6 million at the end of 2018 (previous year: €36.3 million).

Increased sales from framework agreement with Class-I operator CN

Sales revenues in the Tie Technologies business unit amounted to €78.1 million, slightly below the previous year's value of €79.2 million. A substantially lower sales volume in the U.S. transit business had a negative effect. Nevertheless, this decline in sales was almost completely compensated for by the new business with the Class-I operator CN and the resumption of a project in Florida.

The book-to-bill ratio was 1.18 (previous year: 1.02).

Value added still negative as expected

The value added of Vossloh Tie Technologies, at €(3.8) million, was once again in the negative range as expected (previous year: €(3.3) 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 Switch Systems business unit, one of the largest providers of switch systems worldwide, belongs to the division. The product portfolio covers a very wide range of applications, extending from light-rail to high-speed lines.

Orders received once again above €500 million

Orders received in the Customized Modules division totaled €504.6 million in 2018 and were therefore only 1.6 percent lower than the previous year’s high figure of €513.0 million. The previous year’s figure still included two companies in India and Portugal that were no longer fully consolidated as of December 2017. Adjusting for the orders received from these companies, the orders received for Customized Modules were higher than the previous year’s value. The order backlog reached €345.7 million as of the reporting date (previous year: €309.2 million).

Customized Modules

		2018	2017
Sales revenues	€ mill.	482.6	483.3
EBIT	€ mill.	26.1	30.5
EBIT margin	%	5.4	6.3
Average working capital	€ mill.	136.2	137.6
Average working capital intensity	%	28.2	28.5
Average capital employed	€ mill.	432.4	424.9
ROCE	%	6.0	7.2
Value added	€ mill.	(6.4)	(1.3)

Sales for 2018 at the previous year’s level

Despite the aforementioned changes to the scope of consolidation, the sales revenues of the Customized Modules division remained at the previous year’s level in the 2018 fiscal year. Operationally, the high sales contribution of Morocco from the previous year could not be achieved. However, this was compensated primarily by higher sales in Poland and Italy. This resulted in a book-to-bill ratio of 1.05 (previous year: 1.06).

Result and profitability lower than previous year

The EBIT for the division was 14.6 percent below the value of the past reporting year, decreasing the EBIT margin by 0.9 percent. However, the previous year contained a positive effect from the reversal of an impairment on an investment in a Chinese company. Adjusting for this effect, the profitability of Customized Modules in 2018 would have been slightly higher than the previous year’s value. The French management company saw a downturn in business compared to the previous year, primarily due to switch projects in Morocco that ended in the previous year. In contrast, the companies in Luxembourg, Finland, Poland, the UK, among others, and elsewhere experienced a positive development. The U.S. business also performed slightly better than the previous year operationally.

ROCE down on the previous year in particular due to lower EBIT

As a result of the lower EBIT and the slight increase in average capital employed due to the high level of investment activity, the ROCE remained 1.2 percentage points lower than the previous year’s value. Value added was negative once again. The average working capital was marginally reduced. As a result, the average working capital intensity improved slightly by 0.3 percent.

Business performance of Lifecycle Solutions

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

On December 21, 2018, the Lifecycle Solutions division completed the acquisition of the milling business of STRABAG Rail GmbH.

Increase in orders received primarily in Germany

In the 2018 fiscal year, the Lifecycle Solutions division recorded orders received of €90.8 million. In the previous year, this amounted to €79.6 million. Orders received in the stationary welding segment were higher than the previous year, particularly in Germany and to a lesser extent in Denmark. In Sweden, orders received went up in the switch grinding segment among others. The order backlog amounted to €12.9 million at the end of 2018 (previous year: €17.9 million).

Lifecycle Solutions

		2018	2017
Sales revenues	€ mill.	100.0	91.0
EBIT	€ mill.	12.9	6.6
EBIT margin	%	12.9	7.3
Average working capital	€ mill.	13.0	11.4
Average working capital intensity	%	13.0	12.6
Average capital employed	€ mill.	142.6	134.5
ROCE	%	9.0	4.9
Value added	€ mill.	2.2	(3.5)

Substantial increase in sales revenues once again

Sales revenues in the Lifecycle Solutions division increased substantially once again in the 2018 fiscal year by 9.9 percent, and reached the €100 million mark for the first time. This was driven firstly by the improved utilization of welding plants in Germany in comparison with the previous year, and secondly by increased demand for rail grinding in Sweden. Sales revenues in the high-speed grinding segment were also higher than the previous year.

Strong sales performance in Germany caused the Lifecycle Solutions division's degree of internationalization, measured on the basis of sales revenues earned outside of Germany, to fall from 43.7 percent in the 2017 fiscal year to 40.0 percent. Sales revenues achieved outside of Germany remained almost unchanged in comparison with the previous year.

EBIT significantly higher than previous year, also thanks to a one-time effect

In comparison with 2017, EBIT for the Lifecycle Solutions division nearly doubled, and the EBIT margin increased by 5.6 percentage points. This positive development was primarily the result of a one-time effect, the realization of negative goodwill arising from the acquisition of the rail milling business of STRABAG Rail GmbH. Adjusting for this effect, EBIT and the EBIT margin were only slightly higher than the previous year's value. A contribution to the increase in earnings came from the stationary welding segment.

Value added also improved relative to previous year by one-time effect

The one-time effect also had a positive effect on ROCE and value added in the year under review. Adjusting for the one-time effect, these indicators stood at approximately the same level as in the previous year. Capital employed increased primarily as a result of the inclusion of the STRABAG milling machines and high capital expenditure. The increase in average working capital also contributed slightly to the increase in capital employed. The average working capital intensity was 0.4 percent higher than the previous year.

Vossloh AG

As an operational management and financial holding company, Vossloh AG is 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. Its role in controlling the business units' operational activities as an operational management holding company is reflected in the operational responsibilities of Vossloh AG's Executive Board members for the Group's divisions.

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 separate 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 in the fiscal year.

Analysis of the separate financial statements

For the 2018 fiscal year, Vossloh AG reported sales revenues of €4.8 million (previous year: €4.3 million) resulting primarily from intercompany allocations with Group companies that obtain a wide range of services via Vossloh AG (such as in the areas of IT and marketing). 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.

In the 2018 fiscal year, general administrative expenses were slightly higher at €19.7 million than in the previous year (€17.4 million). This increase was caused primarily by increased consulting costs and higher trade fair costs. The trade fair costs are higher in the years in which the InnoTrans trade fair takes place in Berlin. This industry trade fair takes place every two years. Personnel expenses decreased by €0.4 million in 2018 compared to the previous year and totaled €10.5 million.

The other operating expenses totaling €4.8 million (previous year: €10.6 million) resulted primarily from exchange rate losses. In the previous year, this amount was also marked by losses on disposals incurred in connection with the transfer of properties in Werdohl to Vossloh-Werke GmbH for the simplification of operational processes relevant to building management. The other operating income amounted to €12.2 million (previous year: €1.7 million). This also positively reflected the partial releases of risk provisions from the sale of the former Electrical Systems and Rail Vehicles business units of €11.0 million during the year under review.

The 2018 net financial result decreased by €30.3 million relative to the previous year to €7.1 million. The significant drivers of this were a writedown of an investment due to a permanent impairment of €23.3 million, as well as lower profit distributions from investments which totaled €15.0 million in 2018 (previous year: €26.9 million). While the income from profit transfer agreements of €25.4 million was substantially higher than the previous year's level (€19.7 million), expenses from the assumption of losses transfers totaled €17.6 million, only a slight increase in comparison with the previous year's level (€16.9 million). Interest expenses totaling €7.2 million (previous year: €8.1 million) for the year under review stood opposite interest income of €10.0 million (previous year: €14.3 million), primarily from passing on these funds in the form of short and long-term loans to Group companies. Income taxes amounted to a negative €(1.3) million in 2018 (previous year: €0.4 million). Vossloh AG's net loss in the reporting year was €3.5 million (net income in previous year: €11.6 million).

The balance sheet total increased relative to the previous year's value of €959.9 million to €968.6 million. The main reason for this was the increase in Group financing in the form of loans and short-term receivables from affiliated companies.

Financial investments increased on balance by €28.7 million to €547.2 million. This resulted from an increase in loans to associated companies (increase by €39.4 million to €150.0 million) as well as an increase in investments in associated companies resulting from an equity increase at an Australian subsidiary in connection with the acquisition of Austrak Pty Ltd. This increase was partially compensated for by the aforementioned impairment of an investment. Current assets fell by €20.2 million to €419.9 million, as the increase in current receivables from affiliated companies of €18.7 million to €414.6 million was substantially more than offset by the €38.6 million decline in cash and cash equivalents to €5.3 million. The amount of other assets remained virtually unchanged.

The liabilities side of the balance sheet exhibited slightly higher liabilities to affiliated companies of €20.3 million (previous year: €17.0 million) as of the reporting date. By contrast, liabilities to banks increased from €300.0 million to €331.2 million.

Equity was reduced from €603.1 million to €583.6 million due to the aforementioned net loss and the dividend. Accordingly, the equity ratio was below the previous year's level at 60.3 percent. Overall, the development of Vossloh AG's earnings, net assets and financial position in the 2018 fiscal year can be viewed as largely positive.

Based on the indirect factual Annual General Meeting majority of Mr. Heinz Hermann Thiele, which has existed since the Annual General Meeting of Vossloh AG in 2015, the Executive Board of Vossloh AG continues to assume the dependence of Vossloh AG in accordance with Section 17 of the German Stock Corporation Act (AktG). 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 Mr. Heinz Hermann Thiele or companies affiliated with him. 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.

Remuneration report

Principles of remuneration for Executive Board members

The remuneration report contains the principles regarding the remuneration of Vossloh AG’s Executive Board members and specifies the amount and structure of the Executive Board members’ income. In addition, the report describes the principles and amount of Supervisory Board remuneration.

Purpose. The aim of the Executive Board remuneration system is the fair remuneration of Vossloh AG’s Executive Board members in accordance with their areas of activity and responsibility and in compliance with legal requirements.

Criteria for the appropriate remuneration of Executive Board members are based on each member’s function and individual performance, Vossloh AG’s economic situation, success and future prospects in addition to customary remuneration polices in view of the Company’s comparative environment, remuneration structure and their development over time.

Executive Board remuneration system: Vossloh AG’s remuneration system for Executive Board members consists of three components – the basic remuneration, the annual bonus and the multiyear bonus. It breaks down as follows.

Basic remuneration is a fixed annual sum, based on the responsibilities of each Executive Board member and is to be paid in twelve equal monthly installments. It amounts to around 35 percent of the total target remuneration for the CEO and 40 percent of the total target remuneration for the other members of the Executive Board. In addition, Executive Board members receive noncash fringe benefits as payments in kind, which primarily relate to the private use of a company car. No separate remuneration was provided for services performed on behalf of subsidiaries.

Variable remuneration, which amounts to around 65 percent of total target remuneration for the CEO and 60 percent for the other members of the Executive Board at 100 percent target achievement, consists of an annual and a multiyear remuneration component. The performance targets for variable remuneration are determined annually by the Supervisory Board and consist primarily of financial performance indicators. In addition, one third of the multiyear bonus is based on the personal goals and tasks of the individual Executive Board members. All performance targets are forward-looking and are set by the Supervisory Board with target values at the beginning of each assessment period by means of target agreements with the members of the Executive Board.

The **annual bonus** is determined via annual performance targets and accounts for 40 percent of the total variable remuneration. The performance targets for the annual bonus in the 2018 fiscal year related to EBIT, revenue and the average working capital intensity of the Vossloh Group.

At 60 percent, the **multiyear bonus** accounts for the majority of the variable target remuneration and is dependent on the achievement of multiyear performance targets. Two-thirds of the performance targets for the multiyear bonus are based on financial performance indicators. For the multiyear bonuses promised for the 2018 fiscal year, these were average revenue growth and average ROCE. The remaining one-third of the multiyear bonus is based on the achievement of individual performance targets and tasks set by the Supervisory Board for the Executive Board members in annual target agreements.

The achievement of targets for the annual bonus and the financial performance indicators for the multiyear bonus are determined annually by the Supervisory Board on the basis of the approved consolidated financial statements. The target bonus is granted if the target is fully realized. The bonus increases or decreases in relation to the target bonus depending on the achievement of the defined target values. The annual bonus and the portion of the multiyear bonus based on financial performance indicators are limited to a maximum of 170 percent of the respective target bonus. The portion of the multiyear bonus based on individual objectives and tasks is limited to a maximum of 100 percent of the basic amount. With regard to the individual goals and tasks of the members of the Executive Board, the Supervisory Board determines whether the targets have been achieved at its discretion.

However, the Supervisory Board may use its discretion to set an extra bonus allocation for extraordinary performance and development.

Review and approval of Executive Board remuneration

In the previous year, the Supervisory Board carried out a market standards and system analysis of the remuneration of the Executive Board members of Vossloh AG with the assistance of an independent external compensation consultant. The review confirmed that Vossloh AG's remuneration system meets the statutory requirements and that the total remuneration is appropriate and in line with market practice both in the horizontal (with comparable companies) and vertical comparison (differentiation between the members of the Executive Board from each other and from the downstream levels in the Company). Furthermore, the basis for calculating the variable remuneration and the payments in kind granted were also regarded as appropriate and customary within the market.

The applicable system for the remuneration of Executive Board members was approved by the Annual General Meeting on May 9, 2018, in accordance with Section 120 Para. 4 AktG.

Executive Board remuneration in the 2018 fiscal year

The following table depicts the remuneration for the Executive Board, assigned by name and in compliance with the recommendations of the German Corporate Governance Code. The benefits granted also include accrued amounts for variable remuneration components that will not be paid out until 2019 or 2020. Payments in kind cover private company car use in the amount recognized for tax purposes.

€		Fixed remuneration	Payments in kind	**Total**	Annual variable remuneration	Multiyear variable remuneration*			**Total**	Service costs	**Total remuneration**
Benefits granted						2016 & 2017	2017 & 2018	2018 & 2019			
Andreas Busemann CEO since 4/1/2017[1]	2017	412,500	15,259	**427,759**	436,570	–	359,378	–	**795,948**	–	**1,223,707**
	2018	550,000	16,003	**566,003**	235,814	–	(68,475)	316,367	**483,706**	–	**1,049,709**
	2018 min.	550,000	16,003	**566,003**	0	–	0	0	**0**	–	**566,003**
	2018 max.	550,000	16,003	**566,003**	680,000	–	880,000	880,000	**2,440,000**	–	**3,006,003**
Dr. h.c. Hans M. Schabert CEO until 3/31/2017	2017	125,000	3,684	**128,684**	56,250	–	68,750	–	**125,000**	–	**253,684**
	2018	–	–	**–**	–	–	–	–	**–**	–	**–**
	2018 min.	–	–	**–**	–	–	–	–	**–**	–	**–**
	2018 max.	–	–	**–**	–	–	–	–	**–**	–	**–**
Oliver Schuster member of the Executive Board since 3/1/2014	2017	433,333	22,974	**456,307**	407,465	97,362	335,419	–	**840,246**	213,857	**1,510,410**
	2018	450,000	22,611	**472,611**	165,070	–	(89,787)	221,457	**296,740**	207,430	**976,781**
	2018 min.	450,000	22,611	**472,611**	0	–	0	0	**0**	207,430	**680,041**
	2018 max.	450,000	22,611	**472,611**	476,000	–	616,000	616,000	**1,708,000**	207,430	**2,388,041**
Volker Schenk member of the Executive Board since 5/1/2014	2017	416,667	11,485	**428,152**	407,465	97,362	335,419	–	**840,246**	208,743	**1,477,141**
	2018	450,000	12,086	**462,086**	165,070	–	(138,787)	221,457	**247,740**	203,200	**913,026**
	2018 min.	450,000	12,086	**462,086**	0	–	0	0	**0**	203,200	**665,286**
	2018 max.	450,000	12,086	**462,086**	476,000	–	616,000	616,000	**1,708,000**	203,200	**2,373,286**

[1] All values for Mr. Busemann in 2017 were calculated pro rata temporis.
*The granting of multiyear variable remuneration is dependent on the achievement of performance targets for the period in question. Target fulfillment is measured after the expiry of the multiyear period as defined in the contract. The benefits were calculated on the basis of the most likely value and recognized as a provision, provided the contract was still valid.

The table below shows the receipt of remuneration in the reporting year and the previous year in accordance with the recommendations of the German Corporate Governance Code. The paid amounts for the variable remuneration were allocated to the years in which they were received by the respective Executive Board member.

€		Fixed remuneration	Payments in kind	**Total**	Annual variable remuneration	Multiyear variable remuneration*		**Total**	Service costs	**Total remuneration**
Receipt						2015 & 2016	2016 & 2017**			
Andreas Busemann CEO since 4/1/2017	2017	412,500	15,259	**427,759**	–		–	**–**	–	**427,759**
	2018	550,000	16,003	**566,003**	436,570	–	0	**436,570**	–	**1,002,573**
Dr. h.c. Hans M. Schabert CEO until 3/31/2017	2017	125,000	3,684	**128,684**	309,085	1,116,365	–	**1,425,450**	–	**1,554,134**
	2018	–	–	**–**	–	–	–	**–**	–	**–**
Oliver Schuster member of the Executive Board since 3/1/2014	2017	433,333	22,974	**456,307**	176,985	568,629	–	**745,614**	213,857	**1,415,778**
	2018	450,000	22,611	**472,611**	407,465	–	262,063	**669,528**	207,430	**1,349,569**
Volker Schenk member of the Executive Board since 5/1/2014	2017	416,667	11,485	**428,152**	176,985	470,629	–	**647,614**	208,743	**1,284,509**
	2018	450,000	12,086	**462,086**	407,465	–	262,063	**669,528**	203,200	**1,334,814**

* Including the multiyear special bonuses received in each year.
** In the previous year, Dr. h.c. Schabert received annual variable remuneration comprising an amount of €56,250 for 2017 and multiyear variable remuneration for 2015 & 2016 comprising an amount of €304,037. These served to compensate claims from the years 2016 and 2017 at the time of his departure.

Entitlements in accordance with provisions from the German Commercial Code are as follows:

€		Amount deferred for the fiscal year	Present value of pension obligation
Entitlements to defined retirement benefits			
Andreas Busemann, CEO	2017	–	–
	2018	–	–
Oliver Schuster, member of the Executive Board	2017	249,679	516,042
	2018	240,329	756,371
Volker Schenk, member of the Executive Board	2017	241,120	490,862
	2018	232,943	723,805
Dr. h.c. Hans M. Schabert, CEO until 3/31/2017	2017	23,178	252,589
	2018	–	–

Retirement benefits. The Executive Board members Oliver Schuster and Volker Schenk have been granted entitlements to defined retirement benefits in the form of pension payments upon reaching the retirement age of 63. 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 per full year of service, or in the case of first time contract renewals 2 percent per further full year of service, up to a maximum of 40 percent of the pensionable annual basic remuneration. The additional provision for Executive Board members in the 2018 fiscal year amounted to €473,272 (previous year: €513,977). 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. The CEO, Andreas Busemann, receives an annual amount of €50,000 for the establishment of a private pension, which is to be part of the fixed remuneration.

Commitments in the event of premature termination of duties

Commitments in the event of premature termination of duties. In the event of an agreed premature termination of the employment contract, the Executive Board contracts contain commitments to pay out their expected remuneration, 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 good cause. However, the commitments are in any case limited to a maximum of two years' remuneration (severance payment cap). No payment obligations are made in the event of an early termination of Executive Board duties due to a change of control.

Loans to Executive Board members. No advances or loans were granted to any Executive Board members of Vossloh AG in the 2018 fiscal year.

Remuneration to former Executive Board members of Vossloh AG and their surviving dependents. Remuneration in the form of pension payments to former members of the Executive Board and management as well as their surviving dependents totaled €1,172,861 (previous year: €1,133,332). These were 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 management, as well as their surviving dependents, amounted to €21,256,507 (previous year: €19,310,583). Employer pension liability insurance policies totaling €10,459,305 (previous year: €10,624,485) are pledged in each beneficiary's favor. The remaining amount of these pension obligations is covered by provisions.

Remuneration of the Supervisory Board

Supervisory Board remuneration in 2018. The remuneration of members of the Supervisory Board is to be determined by the Annual General Meeting and governed by the Company's Articles of Incorporation. The remuneration system complies with German law and takes into account the responsibilities and scope of duties of Supervisory Board members.

In addition to reimbursement for their expenses, 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 their activities on the committee.

For the 2018 fiscal year, Supervisory Board members received a total remuneration of €435,833 (previous year: €420,000).

The table below depicts the amounts paid to each Supervisory Board member:

€	2018	2017
Heinz Hermann Thiele (Chairman until 5/24/2017)		50,000
Dr.-Ing. Volker Kefer (Chairman from 5/24/2017)	120,000	80,000
Ulrich M. Harnacke (Deputy Chairman)	110,000	100,000
Prof. Dr. Anne Christine d'Arcy (since 5/9/2018)	33,333	–
Dr. Bernhard Düttmann (since 5/9/2018)	26,667	–
Andreas Kretschmann (since 8/30/2017)	40,000	16,667
Silvia Maisch (until 1/31/2017)	–	3,333
Dr.-Ing. Wolfgang Schlosser (until 5/9/2018)	20,833	40,000
Helmut Schwind (from 2/1/2017 to 7/3/2017)	–	20,000
Michael Ulrich	60,000	60,000
Ursus Zinsli (until 5/9/2018)	25,000	50,000
Total	**435,833**	**420,000**

Consulting agreements. No consulting agreements with Supervisory Board members existed in the 2018 fiscal year.

Loans to Supervisory Board members. In the 2018 fiscal year, no advances or loans were granted to any Supervisory Board members.

Statutory takeover-related disclosures pursuant to Section 289a (1) and Section 315a (1) HGB

The provisions of Sections 289a (1) and 315a (1) HGB require that the following takeover-related disclosures be made as of December 31, 2018.

Composition of the subscribed capital
The subscribed capital (share capital) of the Company amounts to €45,325,167.47. It is distributed across 15,967,437 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 44.73 percent of the voting rights in Vossloh AG. These voting rights are to be attributed to the TIB Vermögens- und Beteiligungsholding GmbH, Grünwald, Germany, Stella Vermögensverwaltung GmbH, Grünwald, Germany, and Mr. Heinz Hermann Thiele, Munich, Germany, pursuant to Section 34 (1) WpHG.

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 (3) 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 Association 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 23, 2022, by up to a total of €22,662,582.32 through one or more issuances of new, no-par-value shares against contributions in cash and/or in kind (Authorized Capital 2017). 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 2017 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. The maximum limit reduced in accordance with the above deductions shall be increased again upon the coming into effect of a new authorization to exclude shareholder subscription rights pursuant to or in analogous application of Section 186 (3) sentence 4 AktG adopted by the Annual General Meeting following the reduction, to the extent specified in the new authorization, but no more than 10 percent of the share capital in accordance with the requirements of sentence 1 of this paragraph;

(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 20 percent of the share capital, either at the time this authorization becomes effective or at the time this authorization is exercised. The abovementioned 20 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, 2018, the Company did not hold any treasury shares.

Agreements upon a change of control
There are nine 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 directly or indirectly obtain more than 50 percent of the shares or voting rights in the Company, whereby no change of control is justified with regard to Mr. Heinz Hermann Thiele:

- Four Schuldschein loans arranged by Landesbank Hessen-Thüringen Girozentrale and BNP Paribas: In the event of a change of control, the loan agreements contain 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 S. A.'s German branch, Commerzbank AG, Deutsche Bank AG's German Branch, HSBC Trinkaus & Burkhardt AG, Landesbank Baden-Württemberg, Landesbank Hessen-Thüringen Girozentrale and SEB AB 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 HSBC Trinkaus & Burkhardt AG: If there is a change of control, the bank has the right to cancel the loan without notice within 30 days after becoming aware of the change. In the event of a cancellation, the bank will allow adequate time for processing;

- A general agreement on short-term loans without individual guarantees with Bayerische Landesbank: If there is a change of control, the bank has the right to cancel the agreement within three months if it cannot reasonably expect the continuation of the agreement in consideration of the interests of both parties. In the event of a cancellation, outstanding balances, including accrued interest, are immediately due and payable.

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 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.

In one other agreement, a change of control means that a company or person directly or indirectly obtains more than 50 percent of the capital shares, or more specifically, the voting shares of the Company:

- A guarantee facility agreement with SEB AG 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.

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, 2018, 3,937 employees within the Vossloh Group contributed to achieving the Group's goals. This represents an increase of 252 employees from the previous year (3,685 employees) and equates to growth of 6.8 percent. A significant portion of the increase can be attributed to the acquisitions of the Australian company Austrak Pty Ltd. and the rail milling business of STRABAG Rail GmbH.

Workforce-related performance indicators

€ thousand	2018	2017
Personnel expenses per employee	57.0	54.6
Revenue per employee	229.2	233.4

The average number of employees was 3,773 in the reporting year compared to 3,934 in the 2017 fiscal year. The previous year's figures included the employees of two companies in the Customized Modules division that have not been fully consolidated since December 2017. In contrast, the acquisitions mentioned above were only concluded at the end of 2018, with the result that the newly-joined employees were not included in the calculation of the average for the full year.

Out of the overall average number of employees, 74.1 percent (previous year: 70.0 percent) were employed at locations in Europe. Of the remaining 25.9 percent, 52.5 percent (previous year: 43.1 percent) were primarily active in the North American region and 29.3 percent (previous year: 41.5 percent) in Asia.

Personnel expenses

€ mill.	2018	2017
Wages and salaries	167.5	169.6
Social security expenses and charges	41.8	39.8
Pensions expenses	5.6	5.4
Total	**214.9**	**214.8**

In the reporting year, personnel expenses increased slightly by €0.1 million compared with the previous year.

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 of employees		Personnel expenses per employee in € thousand		Revenue per employee in € thousand	
	2018	2017	2018	2017	2018	2017
Core Components	797	853	55.0	53.1	367.1	412.1
Customized Modules	2,404	2,546	54.6	51.4	200.7	189.8
Lifecycle Solutions	509	473	58.6	58.3	196.4	192.5

In addition, an average of 63 employees (previous year: 62) were employed by Vossloh AG.

We are proud of our employees.

Vossloh's competence is made up of the expertise, experience, commitment and diversity of our employees.

The expertise of today will be old news tomorrow; for this reason, Vossloh places great value on systematically supporting every employee in their professional and personal development. In annual performance review meetings, the managers and employees of all companies of the Group make agreements on what action to take to productively support both the employee's development and the strategic growth of the company.

We want to share experience with one another – and the Vossloh Learning Platform is the perfect medium for this. LEARN.SHARE.GROW. is a call to hold discussions within the Group, learn from each other and grow with the help of various (digital and analog) opportunities.

The commitment of high-performance and high-potential employees in particular is promoted at Vossloh: Employees are prepared for management duties with schemes such as LEAD!, which each year trains a group of high-potential employees to become "One Vossloh" multipliers. The systematic, Group-wide succession planning also ensures that talented junior personnel are recognized as successors and have the opportunity to advance to positions of responsibility throughout the Group.

Commitment matters, even as early as training. Attractive and intensive initial training, as well as the offer of dual study programs in Germany, offer qualified new talent the best opportunities for development within the Group.

Diversity at all levels is another aspect of competitiveness. The experience of long-standing employees, the contribution of "digital natives" and the influence of different nationalities are just as important as the great potential of the female workforce. The sum total of our diversity is a benefit for our clients and therefore a clear driver of our success!

Recruiting, developing and retaining the right employees: The key to success is our dedication to being a trustworthy and attractive employer, which is expressed in fair and safe working conditions, a realistic balance between career and family, and respectful and feedback-oriented employee management.

We create a safe working environment and promote the health of our employees.

We continued to enhance our consistent efforts in the area of occupational health and safety in 2018. Vossloh's focus was on behavior-oriented occupational health and safety, including the development of a culture of safety in which employees consider and protect their health in everything they do. The Group-Wide Work Safety Committee prepares appropriate standardized measures on this subject that help the Company to come closer to its "zero accidents" vision step by step, year to year.

Many thanks to our employees and employee representatives

We would like to express our gratitude to our employees, trainees and managers for the considerable effort and commitment that they provide each day on behalf of Vossloh to ensure our customers' enthusiasm and thus also the success of our company.

Our thanks go to all of the Group's employee representatives for a highly constructive and trust-based partnership over the past fiscal year.

Research and development

Vossloh ranks among the technological leaders in its fields of activity in rail infrastructure. To satisfy the specific expectations of customers in individual market regions over the long term and reinforce its own competitive position, the Company intensively invests in the enhancement and optimization of its products and services. Innovations are a decisive factor in maintaining the Company's technological competitiveness. Within the framework of a structured innovation management process, Vossloh continuously drives new developments forward.

A significant portion of Vossloh's research and development efforts relate to specific orders. 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 a market-ready product are capitalized if they satisfy the criteria defined in IAS 38 for the capitalization of development costs. Development costs that cannot be capitalized are recognized as research and development costs if they are not reported under cost of sales.

In 2018, expenses for research and development – before capitalized internally generated assets – came to a total of €14.1 million (previous year: €12.7 million). This represents a share of approximately 1.6 percent of Group sales (previous year: 1.4 percent). €4.3 million (previous year: €4.1 million) of R&D expenses were attributable to the Core Components division or exclusively to the Fastening Systems business unit. As in the previous year, no R&D expenses were incurred in the Tie Technologies business unit during the year under review. R&D expenses in the Customized Modules division came to €3.9 million (previous year: €4.0 million). €5.9 million (previous year: €4.6 million) were attributable to the Lifecycle Solutions division.

Of the €3.2 million in newly capitalized assets that were generated internally or as a result of third-party deliveries or service performance in the 2018 fiscal year (previous year: €2.4 million), €3.0 million (previous year: €2.1 million) concerned the Lifecycle Solutions division. €0.2 million (previous year: €0.3 million) of capitalized development costs were attributable to the Core Components division.

Vossloh Group – research and development costs

€ mill.	2018	2017
Research and development costs	14.1	12.7
of which capitalized	3.2	2.4
Research and development costs (income statement)	**10.9**	**10.3**
Amortization (of capitalized development costs)	0.9	0.8

The research and development work at Vossloh concentrates on multiple pressing subjects in the rail industry: increasing track availability, extending the lifespan of infrastructure (components) with simultaneous reduction of lifecycle costs and reduction of noise emissions in rail traffic. In addition, Vossloh's R&D experts throughout the Group are also addressing the consequences of the increasing loads placed upon rails and the wear and tear upon rail components that this entails. As a system provider, Vossloh possesses comprehensive expertise regarding rail as a complex mode of transportation.

For several years now, Vossloh has bundled its research and development expertise into multiple technology and competence centers. In fall 2017, a Group-wide structured innovation management process was introduced that follows a systematic approach spanning the core divisions and is based around open-minded thinking. Significant drivers of new developments include the wishes and needs of customers and the requirements of the market. Vossloh now draws new and adjacent technological areas into its development work, since interdisciplinary problem-solving approaches are becoming increasingly crucial to the implementation of new business models due to increasing digitalization in the rail industry. It is precisely this use of new digital technologies that provides enormous opportunities for the Vossloh Group.

On one hand, this is relevant in reference to future products and services. Data collected from the tracks can be used to draw conclusions about the condition of rail tracks. One Vossloh solution for this is called IoT Sensor. The tiny, high-performance computer, which can be installed at various points on the track (ties, point machines etc.), does more than constantly collect information. At the same time, its internal microprocessor provides for the pre-qualification and aggregation of data that are fed into an adaptive system to be evaluated. Vossloh's integrated V-MON monitoring platform combines the data collected by measurement instruments in various infrastructure components into an overall picture, which makes it possible to prepare efficient forecasts for the predictive maintenance of the rail network. This allows transportation operators to plan maintenance more effectively, with the result that the availability of rail routes is increased and lifecycle costs are reduced.

On the other hand, however, digitalization also offers opportunities directly for the R&D activities of Vossloh: In all divisions, research and development work is increasingly based on data-processing technologies. This makes it possible for multidimensional simulations, such as the finite element or multi-body simulation methods frequently employed at Vossloh, to be implemented more quickly and more economically than with conventional methods. The innovative DYNADeV platform developed by Vossloh is a real-time simulation for predicting the mechanical behavior of a switch, such as in regard to the effects of a virtual train crossing on the infrastructure. In this way, for the first time the effect of actually moving rail vehicles are visible in a detailed switching simulation. The simulation tool replaces expensive measurements on the track and laborious laboratory tests; with the virtual process, switches can be certified much more quickly than previously.

Vossloh is entering a completely new world with "Digital Twin." The "digital twin" provides a virtual depiction of a physical object or system, which includes comprehensive product and function data as well as a real-time visual overlay. The fusion of augmented reality and virtual reality in one application provides support in customer service, in the field and during training.

In Vossloh's new innovation process, the route from the idea to the market-ready offering is clearly defined on the basis of requirements, criteria and guiding questions – even in regard to timing. One objective is to substantially shorten the development phases for new products and services by holding "innovation forums" to facilitate transparent and networked information exchange between specialists from all divisions. The opportunities this method creates for the Company are underscored by our vision, "The Smart Rail Track by Vossloh." In September 2018 in Berlin, Vossloh presented the industry with its already highly detailed vision of an intelligent railway that enables disruption-free operation and extends the lifespan of the infrastructure at InnoTrans, the leading trade fair for the rail industry. For example, in addition to the previously mentioned developments of IoT Sensor and V-MON, multiple technologies for "made by Vossloh" digital switch management were displayed – switch disruptions are a major cause of deficient track availability. In urban regional transportation, for example, the compact electro-hydraulic Easydrive point machine can be equipped with smart sensor technology for remote monitoring. With the Easyswitch MIM-H for mainline routes, Vossloh has developed a new generation of this point machine with a proven track record that distinguishes itself as a modular plug-and-play solution with a high degree of reliability. In addition, an innovative rail tie made from Vossloh's innovative composite material *amalentic* was also presented, which not only has a longer lifespan than conventional ties, but is now recyclable as well. Depending on the design, it can be implemented conventionally in the form of a wooden tie, or in an innovative, weight-optimized form in combination with various fastening systems.

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 throughout the world under the framework of longstanding partnerships. Cooperations with technology companies and start-ups are particularly desired in the area of digitalization and big data analysis. An important new joint venture established with Rhomberg Sersa represents a crucial partnership that offers a wide range of monitoring and maintenance services for switches and rails.

In 2018, the R&D experts in the Core Components division worked on bringing new solutions for increased noise and vibration protection closer to market-readiness. In this context, the 336V rail fastening system with *cellentic* intermediate layers for reducing vibrations, developed for local transport in China, was tested on the rails along with the optimized 300NG tie solution for solid tracks. In the 300 fastening system, rail clamp SKL 15 HF is also used, with its completely new design for increased service life and safety. Rail fasteners with steel components were also installed for test purposes, where the new, particularly environmentally friendly premium zinc coating Vossloh *protect* served to ensure long-lasting corrosion protection even under extreme conditions.

In 2018, R&D engineers in the Customized Modules division tested the new, extra-hard rolled steel CogX, primarily for frogs and switch points for tram switches. The results were positive with regard to profile stability and creep resistance. The next step is the testing of heat-treated laminated steel in switch systems for heavy-duty traffic. The material was jointly developed with ArcelorMittal Industeel. Thanks to its extreme hardness, it features higher resistance to wear and impact in comparison with existing solutions. COGISLIDE, a coating developed in-house by the division, was also subjected to extensive practical tests. This makes it possible for coated switch rail chairs to be moved without lubrication. Together with COGILINK, a new generation of self-lubricating rings, corrosion-proof pins and a lubricant-free ball joint for all arm types, the entire switch system becomes maintenance-free and will operate even longer and more reliably. A purely hydraulic point machine, which contributes to energy conservation, was also brought to a point where it was ready for testing.

In the Lifecycle Solutions division in 2018, the development of the compact MPM (Multi Purpose Milling) rail milling machine was concluded, which Vossloh also presented to the industry at the InnoTrans trade fair. Tailored to the needs of regional transportation and operable in tunnels, it is also suitable for flexible hot-spot processing for main line rail routes. In order to ensure that conditions are assessed on a regular basis, Vossloh plans to equip all of its rail profiling machines with cutting-edge sensors. As a first step, the HSG railgrinder was equipped with measurement technology for determining the longitudinal ripple and cross-section. The new in-house mapl-e software evaluates the data from various rail and track condition tests and makes it possible to provide expedient recommendations, optimizing the maintenance cycle and maintenance budget. The participation of subsidiary Vossloh High Speed Grinding GmbH in a project performing an in-depth investigation into “rail screeching” is another example of the Vossloh Group’s research and development activities.

Environmental protection[1]

Vossloh places great value on sustainability in general and the protection of the environment in particular. The nonfinancial statement[2] with extensive information on the significant sustainability and environmental protection subjects for Vossloh, including the quantification of energy consumption and CO_2 emissions, can be found starting from page 68.

The fundamental goals of the Vossloh Group’s environmental management include handling resources more efficiently and minimizing environmental contamination. To achieve these objectives, processes and structures within the Company are continuously adapted to current circumstances. A structured approach is taken toward advancing innovation for (more) sustainable solutions. The individual Group companies regularly undergo environmental audits conducted by external independent auditors. All major locations of the core divisions of Vossloh – including the new Australian acquisition Austrak Pty Ltd. – are certified under the ISO 14001 environmental management standard and/or comparable guidelines.

Vossloh records and monitors material consumption and disposal quantities by means of a comprehensive hazardous substance and waste management system. The Company uses disposal methods that are separated according to waste types as well as economically viable recycling procedures. The selected waste management companies are then audited regularly. Vossloh deals with natural resources in a responsible and consciously sparing manner along the entire process and value creation chain. Energy use and environmental concerns are consistently analyzed, while production processes, transportation and logistics are optimized on an ongoing basis. Wherever possible, renewable energies are used, sometimes directly from the Company’s own solar generation facilities, but also indirectly with the procurement of certified green power. All divisions have been implementing gradual measures for increasing their energy efficiency for years, and waste heat is being reused by an increasing number of production locations.

Continued minimization of resource consumption and environmental contamination were specifications again in the Core Components division in 2018. These included training courses in which employees were instructed in the correct handling of relevant types of waste, held at a regular basis at various locations of the Fastening Systems business unit. In the production process, the cascade guidance of mordants and the neutralization of mordant wastewater were optimized. At the Company headquarters in Werdohl, the reporting year was marked by construction work for the “factory of the future”: The world’s most modern factory for rail fastening systems will be completed here by 2021, and will meet the highest standards in terms of environmental protection, particularly energy efficiency. CO_2 emissions stand to be decreased by 30 percent in comparison with 2017.

The Customized Modules division also implemented a series of measures in 2018 in order to use (energy) resources more efficiently and design production to be more environmentally friendly. Another major construction project was in focus in this area during the reporting year which will have a positive impact on the environmental footprint: Roughly two years since the start of construction, the first project phase was completed and the new foundry in Outreau, France, began operations. Among other things, the previous furnace from 1950 has been replaced with a cutting-edge electric smelting furnace. The plant in Outreau is Vossloh’s competence center for foundry technology; in particular, this is where frogs for switch crossings are produced. At present, two additional halls for milling and welding are under construction in the second project phase. The new factory should be complete by 2020. Current targets include buildings that use solar energy with the help of photovoltaics, LED lighting and energy-optimized modern machines and facilities. These will significantly lower the energy use per unit produced. A closed water circuit, the reduction in emissions and the minimization of sand and dust in production will ensure sustainable and clean production.

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[1] Part of the nonfinancial statement audit for providing limited assurance – see page 82.

[2] Not part of the financial statement audit, but part of an audit to obtain limited assurance – see page 82.

In the factories in Reichshoffen and Fère-en-Tardenois, the systematic exchange of conventional lighting with LED lighting began in 2018. The first step already resulted in energy savings of around 5 percent in Reichshoffen; in Fère-en-Tardenois, a reduction of energy use by about half is expected following completion of the process. At both production sites, the handling of waste paper and cartons was newly regulated so as to achieve higher recycling quotas.

On the basis of data collected in the past years, the Customized Modules division will continue to analyze various environmental aspects in 2019 such as energy, water and material use, delivery routes and employee driving routes, thus finding approaches that further improve our "environmental footprint." Efforts were begun in 2018 to evaluate which environmental effects the essential components of switching systems have in different life cycle phases. This work will be continued in 2019 and the term "recycling economy" will take on importance.

The Lifecycle Division is also constantly improving through numerous measures on subjects such as energy conservation, emissions reduction, waste prevention and sorting, and reduction of water consumption. For example, a large portion of the division's locations now exclusively use green power, and further conversions of lighting to LED technology were carried out in 2018. The division generates waste at its locations in addition to outside at construction sites and during the use of rail profiling machines. In 2018, waste separation was introduced for the HSG railgrinder. In the area of grinding tool manufacturing, Vossloh introduced a reusable system for packaging to replace the oiled paper that was used previously.

*Nonfinancial Group statement**

Vossloh's nonfinancial Group statement for 2018 corresponds to the applicable commercial law requirements. To prepare this declaration, Vossloh used the German Sustainability Code (DNK) as its framework and applied the standards of the Global Reporting Initiative (GRI) within the DNK in order to select the nonfinancial performance indicators ("Core" option). Its reporting covers the Group's global activities; the companies considered equate to the scope of consolidation of the consolidated financial statements (see page 108 et seq., "Consolidation").

The reporting is based on the results of a materiality analysis of the nonfinancial aspects on the basis of which the Company lives up to its environmental, economic and social responsibilities which was carried out for the first-time preparation of the nonfinancial Group statement in 2017. A multistage process was used to identify and prioritize the topics relating to these areas that are relevant to Vossloh both within the Company itself and in the upstream and downstream areas. The subject of the multistage process was a global survey of experts and managers in various areas within the Company. This resulted in 13 nonfinancial aspects of particular relevance; the following materiality matrix depicts the significance of these aspects:

In its meeting on December 11, 2018, the Executive Board of Vossloh AG expressly addressed the significant aspects and issues identified in 2017. Since no fundamental changes to the underlying conditions of the business environment had occurred since then, the Executive Board confirmed these subjects unchanged for the 2018 Nonfinancial Statement.

* Not part of the financial statement audit, but part of an audit to obtain limited assurance – see page 82.

The Vossloh annual report/management report contains supplementary and/or more detailed information regarding many of the nonfinancial aspects and issues considered below, and these are cross-referenced accordingly. All of the material risks related to Vossloh's business activities are part of the Company's risk reporting. It also covers Vossloh's significant nonfinancial risks (see "Nonfinancial risks and opportunities" on page 88).

Significance of sustainability issues to the Vossloh business model

Vossloh is active in rail technology markets worldwide. Within this context, the Company is focused on rail infrastructure. The Group's core activities are organized into the three divisions of Core Components, Customized Modules and Lifecycle Solutions. In addition, Vossloh is active in the locomotive business, which is still reported as discontinued operations in this annual report. The business model of Vossloh is described in detail in the chapter "Business and market environment" on page 38 et seq.

Vossloh makes an important contribution to people's mobility and the transport of goods with its products and services for rail infrastructure. For both local and long-distance traffic, rail is one of the most sustainable, most economical and also safest means of transport. The subject of sustainability generally holds a position of high importance in the rail technology industry. Resources should be used sparingly and emissions – in rail technology, first and foremost carbon and noise emissions – should be kept as low as possible or further reduced with the help of new technologies. As a system provider, Vossloh thoroughly understands the physics of railways and uses its comprehensive expertise to further improve the environmental and sustainability balance of rail as a means of transport. The Group supplies long-lasting components for rail infrastructure and constantly develops these components further by using innovative materials and designs. In particular, Vossloh researches and develops solutions for reducing vibration and noise in rail traffic. The Company's products and maintenance services also aim to facilitate maximum track availability.

In its economic activities, Vossloh also fulfills its social responsibility as a company. Sustainable economic success amid global competition is only possible through responsible corporate conduct. This includes both the Company and its employees adhering to the applicable laws, respecting basic ethical values and acting in an exemplary fashion at all times and in all scenarios.

Accordingly, Vossloh reports on aspects and matters in the following areas in its 2018 nonfinancial Group statement:

- Environmental issues, in particular climate-related emissions and noise emissions
- Employee issues, in particular occupational health and safety, vocational and further training and development, labor conditions and being an attractive employer
- Corporate governance, compliance, combating corruption and bribery, compliance with antitrust law and respect for human rights, all grouped under the term corporate responsibility
- Customer and product issues, in particular product safety and customer satisfaction

Social aspects are also addressed in accordance with the statutory requirements.

Sustainable actions have been an integral part of the Vossloh corporate culture for some time. The Company combines long-term economic value added with environmental and social responsibility. Sustainable solutions and innovative processes are promoted in a structured manner at Vossloh. At the heart of everything is a holistic view. In its core divisions of Core Components, Customized Modules and Lifecycle Solutions, the Company is gradually bringing the existing environment, energy, quality and occupational health and safety management systems together to create an integrated management system that will be subject to regular audits by independent external auditors. The new Group company Austrak Pty Ltd. will also be included in this in the future.

The Executive Board of Vossloh has acknowledged the guiding principle of sustainable development in a statement on the Group's sustainable orientation. The statement has been published on the website www.vossloh.com under "Sustainability" > "Sustainability Management at Vossloh" in the "Investor Relations" section. Within the operational management of the Group, the topic of sustainability falls under the responsibility of the Chief Technology Officer (CTO), who is involved in the development of all concepts related to the topic of sustainability. The CTO also oversees the sustainability working group comprising those within the Group who are responsible for Compliance, Environment/Health/Safety (EHS), Human Resources (HR), Investor Relations/Controlling and Accounting. This body regularly discusses sustainability issues; in 2018, three meetings took place. The working group is responsible for further developing the approaches to sustainability already existing within the Company and for further clarifying the Group's sustainability strategy. This includes developing quantifiable goals that Vossloh will seek to achieve from now on in the area of sustainability (including scope and time frame). The first decision-making processes concerning this were initiated by the working group in 2018.

Vossloh has been listed in a number of sustainability indices since 2008, including the Global Challenges Index and via oekom research's investment universe. In recent years, more and more of the Company's entities have been awarded certification in at least one of the international quality, environmental, energy efficiency and social standards such as ISO 9001, ISO 14001, ISO 50001, OHSAS 18001 or its successor standard ISO 45001, or a comparable national standard and have corresponding management systems in place. This development was also continued in 2018. For example, Vossloh Nordic Switch Systems in Ystad, Sweden now has ISO-45001 certification (replacing OHSAS 18001). The company Austrak Pty Ltd., which has belonged to the Group since December, is already certified under ISO 14001 and the Australian safety standard AS4801. At the reporting date December 31, 2018, more than 99 percent of the Vossloh workforce was employed at an entity certified in accordance with the aforementioned standards.

For all Vossloh Group locations worldwide, energy consumption and data on employee matters such as workplace safety and developments in the area of Human Resources are centrally collected and validated using IBM Cognos Controller consolidation software. There are no standardized Group-wide quantitative data available for further nonfinancial matters. The sustainability working group will prepare recommendations on the definition and incorporation of additional issues into a standardized Group-wide quantitative reporting system in consideration of cost and utility perspectives. Selected indicators for the area of compliance are also available for the entire Group. Insofar as other quantitative data regarding nonfinancial performance indicators in this declaration relates to individual entities only, this is stated as being the case accordingly.

Environmental matters

Compliance with all the applicable environmental protection requirements and the avoidance of environmental risks are top priorities within Vossloh's environmental management. Both in terms of production and the provision of services, Vossloh acts in accordance with international standards and guidelines, in particular ISO 14001 and ISO 50001. Applying these standards helps to minimize potential risks for the environment. Environmental officers have been appointed at the various levels of the Group and a corresponding report system has been put in place. In its materiality analysis, Vossloh identified climate-related carbon emissions and noise emissions as the most significant nonfinancial performance indicators. Vossloh has been pursuing the general objective of continuously reducing its emissions for years. Defining concrete targets for specific time frames is one of the responsibilities of the sustainability working group. In its 2018 meetings, it prepared initial considerations on this subject which will be worked out further in 2019.

Climate-related emissions

With regard to the impact on climate change, carbon emissions and carbon equivalents are relevant to Vossloh, these being generated by the energy consumption of Vossloh itself or in the upstream or downstream areas. All the Vossloh divisions have been making targeted investments to reduce energy consumption and boost energy efficiency for years. Vossloh has photovoltaic and solar thermal systems and uses waste heat from production at a number of its production plants. The key activities in this area in 2018 are outlined on page 66 et seq. ("Environmental protection" chapter).

The following tables present the consumption of significant energy sources within the Vossloh Group for the 2018 fiscal year and the comparative figures from 2017:

MWh (Vossloh Group)*	2018	2017
Gas consumption	109,592.9	101,154.6
Electricity consumption	65,157.0	69,715.5
District heating consumption	4,937.7	4,750.6

* The following consumption figures for 2018 were calculated for the Transportation division reported as discontinued operations: Gas consumption: 2,155.0 MWh (2017: 1,779.4 MWh), electricity consumption: 3,515.3 MWh (2017: 6,696.6 MWh), district heating consumption: 3,153.2 MWh (2017: 15,218.0 MWh).

Liters (Vossloh Group)*	2018	2017
Heating oil consumption	295,528.0	340,217.0
Fuel consumption[1]	1,028,613.3	1,106,042.7

* The following consumption figures for 2018 were calculated for the Transportation division reported as discontinued operations: Fuel oil consumption: 12,179.2 liters (2017: approx. 10,000 liters), fuel consumption: 59,971.6 liters (2017: 55,774.0 liters).
[1] This includes the fuel consumption of Vossloh's vehicle fleet.

While gas consumption within the Vossloh Group was 8.3 percent higher than the previous year, primarily due to the Customized Modules division, consumption of electricity, heating oil and fuel decreased at the Group level, in some cases falling substantially below the previous year's level. Among other factors, this was caused by changes to the scope of consolidation in the Customized Modules division, where two companies were no longer fully consolidated that had used the respective energy sources. The substantially decreased consumption of district heating in Vossloh Locomotives can be attributed to its relocation to the new, more energy-efficient plant in Suchsdorf.

The amount of Vossloh's carbon and greenhouse gas (GHG) emissions was determined, as in 2017, on the basis of the Greenhouse Gas Protocol in the categories of scope 1 (direct emissions from the combustion of fossil fuel sources for heating and mobility) and scope 2 (indirect emissions from the generation of purchased electricity). The results were as follows:

t CO_2 equivalents, scope 1 (Vossloh Group)	2018	2017
Gas consumption	20,162.7	18,221.4
Fuel oil consumption	749.6	861.4
Fuel consumption	2,623.6	2,829.8
Scope 1*	**23,535.8**	**21,912.6**

* 584.4 metric tons of scope 1 carbon equivalents were calculated for the Transportation division in 2018, which is reported as discontinued operations (2017: 490.5 tons).

t CO_2 equivalents, scope 2 (Vossloh Group)	2018	2017
Electricity consumption	31,036.7	35,356.1
District heating consumption	1,920.0	1,837.6
Scope 2*	**32,956.7**	**37,193.7**

* 2,898.6 metric tons of scope 2 carbon equivalents were calculated for the Transportation division in 2018, which is reported as discontinued operations (2017: 7,861.5 t).

The development of carbon equivalents at the Group level essentially follows the respective developments in energy consumption. The disproportionately high reduction of CO_2 equivalents from electricity consumption (CO_2 equivalents (12.2) percent relative to previous year, electricity consumption (6.5) percent) can be attributed to the use of an improved electricity mix in consideration of emissions aspects within the Group, such as at the location in Werdohl.

Vossloh does not have Group-wide data with which to ascertain the greenhouse gas emissions relating to the upstream and downstream areas (scope 3).

Vossloh consistently makes use of the available options for further reducing its carbon emissions. Significant energy savings are linked primarily with the two current major construction projects: "Factory of the Future" at Vossloh Fastening Systems in Werdohl (savings target: 30 percent in comparison with the 2017 level) and "OT 2020" at Vossloh Cogifer in Outreau; more information on this subject can be found in the "Environmental protection" chapter on page 66 et seq.

Numerous smaller changes are also contributing to the improvement of the greenhouse gas balance sheet. For example, only vehicles with a diesel, hybrid or electric engine and with emissions of less than 150 g CO_2/km according to the manufacturers' information are permissible as company cars at Vossloh AG. An incentive system is also in place which "rewards" employees for choosing company cars with lower emissions. Vossloh Fastening Systems and Vossloh AG are participating in the Clean Advantage™ program, which offsets emissions of carbon dioxide and other greenhouse gases caused by company vehicles with investments in reforestation, alternative energy and biomass projects, among other things. Through the use of optimized truck logistics, Vossloh Fastening Systems prevented more than 40 metric tons of CO_2 emissions at the Werdohl location during the reporting year. An employee survey of Vossloh Fastening Systems GmbH and Vossloh AG on the subject of carbon emissions is planned for 2019 with the objectives of further increasing awareness of sustainability and reducing emissions.

The Customized Modules division has used a conference call and video conference system for a number of meetings since 2017, thus substantially reducing the number of employee trips. The greenhouse gas emissions of the division are now roughly 15 percent lower per year than before the conversion. Two additional measures were carried out in 2018 to improve the carbon balance sheet: Adjustments in outgoing delivery management have permanently reduced the number of express and airfreight shipments, and a complete reorganization of incoming deliveries for the production plants in Reichshoffen and Fère-en-Tardenois has ensured that the number of trucks and the mileage driven have been reduced by roughly a third.

The Lifecycle Solutions division is gradually converting its locations to green electricity. The company Alpha Rail Team was added in 2018. The complete conversion of the company Vossloh Mobile Rail Services to green electricity is planned for 2019. At the end of 2018, the division covered 38 percent of its electricity needs with power from renewable sources. According to the green electricity and climate protection certificates available from suppliers, Lifecycle Solutions prevented in 2018 roughly 425 metric tons of attributable carbon emissions with the conversion to green electricity.

Noise emissions

Noise development is not an issue of relevance to Vossloh itself regarding sustainability; the Company meets all the statutory emission regulations. The products and services of Vossloh, however, serve the purposes of creating and maintaining rail infrastructure. For rail routes of all types, noise protection is a key subject of public perception, and currently counts among the most pressing challenges of rail transport. Noise hampers the urgently needed expansion of routes, causes sickness among people living near rail routes and results in high costs for the transport operators and consumers. An essential factor in effective noise reduction is combating it at the source, by optimizing the wheel-rail contact on the track. Reducing the noise caused by rail traffic and improving track acoustics have been a focus of Vossloh's research and development work for years. The Company offers suitable products and services in all core business areas.

At InnoTrans, the leading international trade fair for transport technology, in September 2018 in Berlin, Vossloh presented numerous examples of how rail noise can be reduced in a sustainable manner in the subject area of "Silent & Clean Environment". Special materials such as *cellentic* intermediate layers and plates for Vossloh's highly elastic rail fastening systems dampen vibrations due to rail and wheel irregularities and minimize structure-borne noise caused by rail vibrations during train crossings. *cellentic* components can be installed for virtually every track type. Roughly 29 million units have been installed to date. The new DFF 336 Crossover rail fastening system, which contains a high proportion of plastic, was designed with vibration dampening in mind from the very beginning and was developed particularly for the renovation of existing routes. When trains pass through switches, the wheels cause noise in the switch frog when they first come into contact with switch tongue or wing rails. Vossloh's special switch designs reduce this noise by optimizing the movement of the wheel over the rail in the transitional area. Vossloh's crossings with movable frog points are made from a cast manganese steel developed in-house. The more ripples, slip waves and skid spots rails have, the louder the rolling noise is when a train crosses. Vossloh offers different processing technologies (grinding, milling) that vary according to the severity of the rail defects and that can be used to restore the rail surface to a smooth and thus "quiet" condition. The rail and switch processing machinery can achieve noise reduction of up to 10 dB(A) by precisely removing material. The machines themselves also operate quietly. The new Multi Purpose Milling (MPM) compact milling machine, for example, 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).

Employee matters

The key nonfinancial issues identified by Vossloh in its materiality analysis in relation to employee matters were occupational safety and health, vocational and further training, and being an attractive employer. The concepts developed and implemented in these areas by the HR departments at the various levels within the Group and the objectives pursued with these concepts are explained below. There are currently no significant risks in regard to employee matters (see also: "Nonfinancial risks and opportunities" in the chapter "Risk and Opportunity Management" on page 88).

Occupational health and safety

Workplace safety and maintaining the employees' health are at the heart of Vossloh's care obligations as an employer. Nearly all major production plants worldwide are certified under the internationally-recognized standard OHSAS 18001 (Occupational Health and Safety Assessment Series) or the successor standard ISO 45001, and undergo the prescribed audits by independent external auditors. As of the end of 2018, just under 70 percent of Vossloh employees were employed at entities certified in accordance with OHSAS 18001 or ISO 45001. The switch and system servicing segment within Vossloh Rail Services has even had SCC (Safety Certificate for Contractors) certification since 2017, which goes above and beyond the requirements of OHSAS 18001. For the managers of the operating units, achievement of the defined occupational safety performance indicators is an integral part of their pay-related target agreements.

There has been a permanent Group-wide occupational safety body 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. In this policy, the zero-accident strategy vision is defined.

Since 2014, workplace accidents throughout the Group have been documented at Vossloh every month on the basis of uniform criteria. The key performance indicators here are the globally used metrics of lost time accident frequency rate (LTAFR) and lost time accident severity rate (LTASR). Accidents resulting in lost time due to an employee's ill health are reported directly to the Executive Board in a timely manner. The Work Safety Committee and the Group Works Council cooperate closely in order to further reduce workplace accidents and further develop the culture of safety.

Workplace accidents (Vossloh Group)*	2018	2017
Lost time accidents[1]	98	80
Lost time accident frequency rate[2]	13.8	12.3
Lost time accident severity rate[3]	2.1	1.7

*The following values can be stated for 2018 for the Transportation division reported as discontinued operations: LTA = 10 (2017: 14), LTAFR = 12.4 (2017: 16.8) and LTASR = 0.9 (2017: 0.9).

[1] Accidents involving injury-related lost time of at least 1 hour

[2] Frequency of accidents involving injury-related lost time of at least 1 hour in relation to the cumulative actual work time, based on 1 million hours worked

[3] Severity of accidents involving injury-related lost time of at least 1 hour in relation to the cumulative actual work time, based on 1 million hours worked

18 more workplace accidents with injury-related lost time of at least one hour occurred in 2018 than in 2017. The number of hours worked also increased, but the increase in workplace accidents and absence after workplace accidents was disproportionately high, which cumulatively led to higher values for the LTAFR and LTASR indicators.

Both accidents with and without lost time and near accidents are systematically analyzed at Vossloh in order to learn from them for the future at all the Company's sites. The definition of concrete targets for specific time frames in the area of occupational safety is likewise one of the responsibilities of the sustainability working group. It addressed this subject at every meeting in 2018 and prepared initial proposals to be coordinated with the Work Safety Committee.

Prevention is a matter of importance to Vossloh 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 and awareness campaigns. Memorable videos are frequently employed as well. The hand safety campaign launched in the previous year, which focused on risks for hand injuries, was notably continued in 2018. This aims to raise employee awareness of conduct-based occupational health and safety, and allow employees to proverbially experience the importance of keeping your hands safe.

The "4 Seconds for Safety" campaign is now well-established throughout the Group: Every day, every new activity, every shift talk and every get-together at Vossloh begins with a brief discussion of specific safety aspects, and not just in the production area. The technical and commercial trainees of Vossloh Fastening Systems in Werdohl showed a particular commitment in regard to occupational health and safety in 2018: Together with their training manager, they developed a poster campaign entitled "Safety first" that points out hazards in day-to-day work, for which they received the "Smart Fox" award from the Wood and Metal Trade Association for exemplary occupational health and safety measures.

Since February 1, 2018, a standardized time-based travel security management system has been available for all employees who travel internationally as part of their activities for Vossloh. It encompasses both medical and security-related aspects of business travel, and also offers precautions about potential emergencies. Information from the global travel security guidelines are available to employees through the intranet. Group employees are assisted when preparing for travel both through the automated dispatch of travel-related emails by a competent external service provider, as well as by the Group's Assistance Centers and Travel Security Manager. This cooperation gives travelers access to 11,000 international medical, security and logistics experts at over 1,000 locations in 90 countries, around the clock 365 days a year. The help provided by the service provider, which itself acts in accordance with GRI guidelines, is completed by an assistance app as well as information about the Assistance Centers in check card format.

Vossloh's occupational health management pursues the goal of offering all its employees preventive health care and promotion. This includes the occupational safety measures already mentioned, workplace ergonomics and driver safety training as well as daily fruit, nutritional advice, company sport (including jogging groups and yoga courses), support with quitting smoking and preventive measures (like flu vaccinations, health screenings and health care tips).

Training, further training and development

Aging societies in developed countries, a shortage of skilled workers in many parts of the world, global competition for well-qualified engineers and the younger generation's changing expectations of employers – these are just some of the challenges faced by Vossloh in the area of human resources.

One of the Company's major advantages in terms of its attractiveness as an employer is the comprehensive array of development measures it offers its employees, with these measures being agreed upon by an employee and the manager in the annual performance review meeting as a means of individually training the employee while taking the operational needs into account. Implementation of these measures is closely monitored and evaluated by the HR departments. As a key management tool, the yearly performance reviews entail not only such development measures, but also mutual feedback from the manager and the employee regarding working together. The implementation rate for the yearly reviews is firmly established as a key indicator at many companies of the Vossloh Group, and remained at 95 percent in 2018.

The range of professional development measures covering all areas of expertise comprises external and internal training, workshops, project involvement (within or outside of a business unit) and coaching. Vossloh also promotes employees gaining qualifications on their own initiative, such as by studying alongside working. In addition, as part of its talent management, Vossloh promotes and challenges future managers and carefully selected specialists with its annual LEAD! program. This executive development program encompassing all the business units develops high-potential employees into "One Vossloh" multipliers, preparing them for further responsibilities as part of the Company's systematic succession planning.

The new Vossloh Learning Platform (VLP) is an environment for continuous learning ("LEARN"), sharing ("SHARE"), and growth ("GROW"). It is our mission to create an inspiring and motivating culture of learning at Vossloh that every employee can contribute to and benefit from. The VLP is an example that learning takes place every day and in numerous ways. The offering encompasses all learning options such as "on-site," "tailor-made," or "digital learning" – and is growing continuously. All business units carried out training programs to develop the management skills of their managers.

In the area of initial vocational training for young people, there is great demand at Vossloh in Germany for existing dual training opportunities, in other words the combination of company-based training and studies, in both the industrial/technical and commercial fields.

Labor conditions

Committed employees are the basis of the Company's long-term success. Vossloh therefore attaches great importance to fair labor conditions. Key issues in this regard are fair remuneration, additional company benefits (above and beyond the statutory and/or tariff-based arrangements) and a safe work environment. 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 and the Group Works Council regularly invite the Executive Board and Corporate Human Resources to their meetings in order to guarantee the flow of information, discuss scope for improvements and adress new issues together.

One of these subjects is the family-oriented HR policy. This began with the Group works agreement adopted in 2018. A working group composed of managers, works council members and HR employees developed objectives and measures for ensuring a balance between career and family; with this result, Vossloh will submit itself to the "Career and Family" external audit in early 2019. Existing family-friendly instruments range from flexible working hours, flextime and part-time and parental leave models to mobile working, personal sabbaticals and childcare services. At French companies, provisions were also adopted to ensure that employees are unavailable during free time.

Vossloh's incentive system also includes aspects that further strengthen the Company's sustainability focus. For example, employees throughout the Group take part in the INSPIRO idea management program as well as a continuous improvement process (CIP) that also involves them financially in the revenue that results from their ideas for improving product, process and service quality. A significant portion of the proposals concerned the subject areas of environmental protection (emphasis: energy conservation) as well as occupational health and safety. For example, two employee ideas are currently under development which will result in oils used in the production of rail fastening systems needing to be replaced less frequently and enabling them to be reused through the use of suitable recycling measures.

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 Code of Conduct stipulates and precisely defines the values of integrity and upstanding business conduct. The principles of conduct that this code prescribes are a binding yardstick and benchmark for the day-to-day activities of all the employees (see also the detailed coverage of the topic of compliance on page 78 et seq.).

Vossloh expects all of its business partners, be they companies or individuals, "to apply similar standards to the ones we have established for ourselves," as the Company's Code of Conduct stipulates. Suppliers, service providers and subcontractors who are new to working with Vossloh are required to provide comprehensive information on themselves by means of checklists. Increasingly, the issues of safety, health and the environment are likewise being considered in these evaluations as Vossloh itself is required to present its own customers with evidence in these areas (see the "Customer and product aspects" chapter on page 81 et seq.).

Attractive employer

Vossloh's corporate culture is founded on the four basic values of "passion," "striving for excellence," "trust and respect" and "entrepreneurship." That these values are practiced on a daily basis is an important argument for Vossloh in terms of both competing for qualified professionals and retaining skilled employees in the long term. At the same time, Vossloh is working on opening the traditional industrial and hierarchical environment up to a project-based and digital culture, with the objective of creating attractive workplaces for young talent and maintaining the Company's competitiveness.

Vossloh continuously boosts its appeal as an employer with an array of measures such as:

- Systematic promotion of talented individuals and junior employees (including the LEAD! Development program)
- Harmonized HR processes and tools
- Development of a Vossloh management culture
- Group-wide succession planning to facilitate international careers within the Group
- Occupational health management (see "Occupational health and safety" on page 74 et seq.)
- Employees as ambassadors for the Company (through the "Employees Recruiting Employees" program and other initiatives)
- Joint development by employee representatives and the management of topics relevant to success (e.g. collaboration between Work Safety Committee, the Group Works Council and the European Works Council in the areas of occupational safety, "Career and family")
- In Germany: Erstausbildung@Vossloh (various initial training opportunities in industrial/technical and commercial areas and dual training options)

Vossloh Group companies assess employee satisfaction by means of regular surveys regarding various focal issues. The surveys are conducted and evaluated using scientific methods, and the results serve as the basis for improvement measures and changes. For example, 2018 saw Vossloh Fastening Systems continue an employee survey on management quality that started in the previous year; the results fed into the continuous optimization of the cooperation between employees and managers. At Vossloh Rail Services, the employees of the company Vossloh High Speed Grinding GmbH were surveyed for the first time at the end of 2018.

A Group-wide IT employee survey was carried out for the first time at the end of 2018 with the goal of identifying potential for further development in the area of IT as well as identifying "customer perceptions" regarding IT, and received a high level of participation. The survey addressed a wide variety of subject areas. The concrete results are currently still under evaluation, and the identified solutions for further development should be implemented this year.

Vossloh's flat hierarchies generally promote open dialogue within the workforce and between employees and managers. Annual performance review meetings are held Group-wide to provide an opportunity to give feedback. Since the introduction of the "One Vossloh" principle to the integrated Group, the Executive Board has also been actively pushing for stronger cross-divisional communication. The objectives are primarily a fundamental reorientation of innovation management and establishing a globally standardized image for our customers.

Social matters

In accordance with the current decentralized Group structure, social aspects fall under the scope of responsibility of the operating unit; as such, there is no Group-wide concept in place. In addition, the contributions made to the community by the individual corporate entities at the various sites are not systematically recorded. For this reason, it is not currently possible to make statements for the business units or divisions in this regard. The risks arising from these endeavors are, however, part of the Group's risk reporting (see "Nonfinancial risks and opportunities", page 88).

Individual companies traditionally support civic society at their respective locations in a variety of ways. For example, the Lifecycle Solutions division uses funds that can be donated to charitable organizations to promote increased participation in social, athletic, cultural or environmental areas by its employees. At the new Group company Austrak Pty Ltd., employees have a paid absence day which they can use to work for a charity organization of their choice. Vossloh Fastening Systems and Vossloh AG have made, for example, contributions to a children's and youth hospice. A large number of Vossloh employees also volunteered in their local communities in their free time.

Additionally, Vossloh's research and development departments in particular collaborated with a number of universities and research institutes at varying levels and in various constellations, including in Germany, France, Sweden, China and the US. Among other things, Vossloh also awards prices for particularly outstanding academic performance – such as the top graduate of the Financial Management course at the University of Applied Sciences Europe in Iserlohn.

Corporate responsibility

The nonfinancial aspects of corporate governance, compliance, combating corruption and bribery, compliance with antitrust law and the 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 more than 130-year history, Vossloh has a social responsibility toward its customers, employees, partners, investors and the public. This corporate responsibility includes the Company and its employees adhering to the laws applicable, respecting basic ethical values and acting in an exemplary fashion at all times and in all scenarios.

Corporate Governance

As a German stock corporation, Vossloh AG has a dual management and monitoring structure as reflected in the Executive Board and the Supervisory Board. Both bodies have an obligation toward the Company's well-being and the interests of the shareholders. As a third body, the Annual General Meeting is responsible for important fundamental decisions made by the Company.

Compliance/ combating corruption and bribery/ compliance with antitrust law

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 targets. 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 Financial Officer (CFO).

The Executive Board of the Vossloh Group has established a Compliance Management System (CMS). The Vossloh Group's Rules of Procedure of the Compliance Organization govern the Compliance Organization, the assignment of responsibilities to 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 these risks in order to prevent Vossloh and its employees from incurring damage and liability risks. In a risk stocktaking update conducted in 2016 with external assistance, bribery in business dealings and violations of competition law were identified as the central compliance risks. This relates in particular to sales and all the sales-promoting activities, involving intermediaries. The Compliance Management System addresses these risks and minimizes them with the help of suitable processes and measures. In 2018, the existing risk assessment was confirmed in the course of a survey of 215 managers and other employees within the Vossloh Group carried out with external assistance.

Since 2007, Vossloh's Compliance Management System has been based on the Vossloh Code of Conduct. The Code of Conduct 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, conduct compliant with antitrust law and the bringing in of intermediaries as well as insider guidelines.

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 2018, Vossloh conducted compliance training around the world for a total of 1,324 participants.

Compliance training is also given in the form of e-Learning. 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. 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, 2018, the training rate stood at 91.1 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 are performed both ad hoc and without there being any specific suspicions. In 2018, 4 Group-wide compliance audits (2017: 5) were carried out. Additionally, Vossloh regularly has its Compliance Management System reviewed by external experts and has them make recommendations regarding its further development and improvement. The most recent 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, they 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 215 managers and other employees of the Vossloh Group in 2018 which confirmed the effectiveness of the established Compliance Management System as well as high levels of awareness and acceptance of compliance within the Vossloh Group.

Vossloh has set up a whistleblower hotline together with an international law firm. This allows Company employees and external whistleblowers to report possible misconduct to an independent external contact (ombudsperson) in their native language. The whistleblower hotline has so far been set up for 21 countries. As such, the main regions and the languages spoken within the Vossloh Group are essentially covered. The ombudspersons were contacted on six occasions in 2018 (2017: one occasion). Vossloh systematically looks into every report of conduct that is potentially illegal or against the rules.

Vossloh 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. Binding 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 Vossloh and its employees.

Since early 2017, 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 (VBD) (Vossloh Executive Board member Volker Schenk has been a member of the VDB Presiding Board since 2011 and President of the VDB since January 2016)
- Association of the European Rail Industry (UNIFE)
- Deutsches Verkehrsforum (DVF)
- Institut für Bahntechnik GmbH (IfB)
- Pro-Rail Alliance
- Association of German Transport Companies (VDV)

Details of material nonfinancial risks regarding ongoing legal proceedings and legal disputes can be found in the section entitled "Nonfinancial risks and opportunities" on page 88.

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

The protection of personal data is a matter of importance to Vossloh. Vossloh revised its data protection management system in 2018 to comply with the European General Data Protection Regulation (GDPR) and adjusted the organization in accordance with the new legal requirements. The new data protection policy came into effect in May 2018. 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.

Respect for human rights

Vossloh respects the 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 "Corporate Governance" > "Compliance" in the "Investor Relations" section of the corporate website www.vossloh.com. Risks that may result from the violation of human rights are recorded under "Nonfinancial risks and opportunities" on page 88.

As a globally acting Group, Vossloh actively promotes diversity within its workforce and intercultural learning for its employees. In 2018, the Company employed men and women from over 40 countries and with a wide range of qualification levels, education levels, vocational training paths, career experience and service years within all of its hierarchical levels. An "Inclusion & Diversity" policy is currently being prepared in order to promote employee diversity in all relevant areas. Vossloh is fundamentally committed to promoting equal opportunities in the workplace, such as in the selection of employees for high-potential programs or recruitment for open positions. In 2018, Customized Modules initiated a project that promotes the subject within its international organization in a targeted manner.

To minimize the risk of child labor, the Company, 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 2018 fiscal year (2017: 0 reports).

There are no Company-wide specifications in place at Vossloh regarding the aspect of human rights when drawing up contracts and there is therefore no monitoring of this. 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).

To date, neither Vossloh's own sites nor its suppliers have been subject to checks of their compliance with the human rights clauses, and corresponding monitoring and assessment processes have not been established. The Company management has received no indications suggesting that individual sites are violating human rights. The various Vossloh companies subject their suppliers and intermediaries to intensive preliminary checks before concluding a contract with them. Here, too, the Company has so far not had cause to check compliance with human rights.

Customer and product aspects

The rail technology markets in which Vossloh operates have some particularities resulting among other things from the historical development of rail as a means of transport. In the majority of these markets, the rail infrastructure and numerous rail transport operators are still state-owned. Vossloh's potential customers are therefore companies the investment scope of which can also be influenced by political specifications. Building and maintaining rail routes and purchasing and maintaining the rolling stock are costly as rail transport operators are required to comply with extensive technical, logistical and legal provisions. The number of potential Vossloh customers is therefore limited. Furthermore, safety is elementary when it comes to the (mass) transportation of people and goods. Rail performs well in this respect in comparison to other means of transport. The safety of its products and services and customer satisfaction are therefore key nonfinancial performance indicators for Vossloh. The material nonfinancial risks that the Company faces because of the underlying industry conditions or the markets it develops are covered in the section entitled "Nonfinancial risks and opportunities" on page 88.

Product safety

Vossloh makes considerable contributions to the safety of rail services, meeting the most stringent of standards itself in the process. 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. At the reporting date December 31, 2018, around 98 percent of the Vossloh workforce was employed at an entity with such a certification. 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 installations/test usage by the customers and as part of the complex approval process of certified testing organizations. In this manner, 2018 saw the Core Components division test multiple enhanced rail fastening systems, the new corrosion protection for tension clamps and the innovative EPS composite tie in regular operation on selected routes in North America. The Customized Modules division tested various products made from its newly developed, extremely hard rolled steel CogX in a tram network. The Lifecycle Solutions division launched the HavenZuG project in cooperation with well-known partners to research how constant monitoring and analysis of rail conditions in harbor railways can be embedded into day-to-day shunting operations. The stringent requirements result in lengthy development times. All of Vossloh's business units have their own Research and Development departments, which are staffed by highly specialized professionals.

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

To minimize the possibility of 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. The extensive evaluations and audits of both potential and existing suppliers are based on numerous criteria. A key aspect is a supplier's unfailing ability to meet the quality standards stipulated by Vossloh. The keywords here include product quality, service and delivery reliability. All of Vossloh's partners are regularly 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 be generally able to guarantee at all times that their goods and services meet the applicable regulatory and statutory requirements.

Customer satisfaction

Customer communication has historically been the responsibility of Vossloh's operating units, in keeping with the Company's formerly decentralized structure. The divisions have steadily expanded their customer communication in recent years in order to better understand their customers' wishes and needs and to meet these more accurately. In line with the "One Vossloh" principle, the establishment of a cross-divisional customer relations management was initiated at the end of 2017 following a Group-wide dialogue on the topics of sales and customer communication. The objective is for all information about all Vossloh customers to be collected centrally in a secure environment and made equally available to all operating units in order to leverage synergies for the purposes of sales. In addition, the system should result in there being less work involved in preparing documents for calls for tender and meeting the ever greater reporting duties in relation to customers, such as in regard to certification. The solution based on customer relationship management (CRM) software went live in February 2018 once all of the more than 300 employees affected had been given the appropriate training. It encompasses more than 10,000 Vossloh customers in 115 countries and all rail infrastructure projects worldwide that the Group supplies. At the InnoTrans industry trade fair in Berlin in September 2018, the CRM system successfully passed its first practical test. In 2019, additional interfaces with other IT applications such as email programs and marketing modules will be established and the working environment will be configured to be more user-friendly.

As in the past, the logging of customer satisfaction remained the responsibility of the operating units in 2018. Corresponding surveys are carried out in various ways at individually selected intervals, as well as on a project-oriented basis or as part of customer visits in some cases. For example, Vossloh Fastening Systems GmbH (Germany location) carried out an international online survey in March 2018 with the help of an external market research institution. The quality of VFS products was ranked very highly by customers. Indicators for improvements were collected and processed in various projects. Centralized surveys are scheduled for 2019 in the Lifecycle Solutions division.

Audit

Vossloh Aktiengesellschaft, Werdohl, contracted the independent audit firm Warth & Klein Grant Thornton AG Wirtschaftsprüfungsgesellschaft to audit its nonfinancial Group statement and the sections of the annual report that qualify as components by reference for the period January 1, 2018, to December 31, 2018. This audit was performed on the basis of the International Standard on Assurance Engagements (ISAE) 3000 (Revised) with the aim of obtaining limited assurance. The independent auditor concluded that, based on the audit procedures performed and the audit evidence obtained, they were not aware of any matters that led them to believe the nonfinancial Group statement was not prepared, in all material aspects, in accordance with Sections 315b and 315c in conjunction with 289c to 289e HGB. The independent auditor's report issued regarding this audit with limited assurance is not intended to be used by third parties as a basis for making (investment and/or asset management) decisions. The audit firm contracted to conduct the audit assumes no liability in regard to third parties.

Risk and opportunity management

Organization

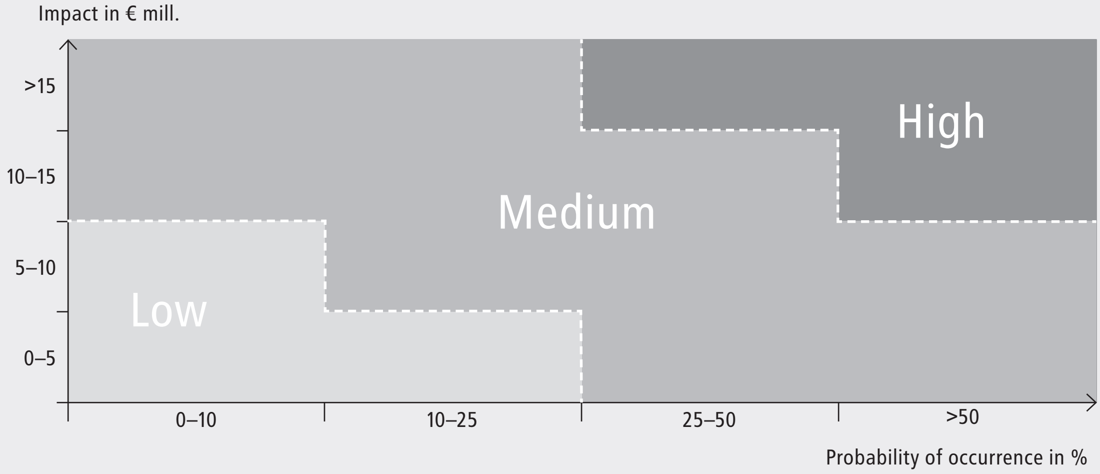
Risks and opportunities for the Company's net assets, financial position and results of operations are regularly and systematically identified, analyzed, evaluated, communicated, monitored and managed at all levels within the Vossloh Group. Vossloh has established a Group-wide risk and opportunity management 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. The majority of the risks and opportunities which apply to the business of the Group also apply to the business development of Vossloh AG. Acquired companies are promptly integrated into the system. This also applies to the newly-acquired Australian company Austrak Pty Ltd., which is already included in reporting as of December 31, 2018.

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 that was last updated in January 2018. The structure of the 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 Company. A permanent inventory identifies risks and opportunities on an ongoing basis and ensures that relevant risks are recorded effectively, promptly and systematically.

Vossloh evaluates risks and opportunities in regard to their potential impact. 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. Nonfinancial risks and opportunities, which are evaluated in regard to their impact on nonfinancial aspects such as environmental or employment concerns, are also incorporated into risk reporting.

Vossloh documents and communicates 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 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 intended to be read by the Executive Board of Vossloh AG as well as the management of the Group companies and business units. They are responsible for managing and monitoring risks and opportunities. The management of the business units, Corporate Controlling and the Vossloh 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. 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 significance that individual risk categories hold for the Vossloh Group is evaluated, where possible, on the basis of the potential negative impact on the forecast financial targets and on the probability of occurrence of the given risk category. On the basis of these two factors, risk categories are classified as high, medium or low as shown in the following image:



The following statements illustrate the risks and opportunities that were relevant at the time the consolidated financial statements were prepared and are significant to the development of the Vossloh Group.

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 develop based on the competitive situation as well as global megatrends such as urbanization, climate change and digitalization.

Vossloh's clients are frequently from the public sector. For this reason, the general performance of the economy only has a limited impact on the Group's business performance. Regulatory activities, the state of rail deregulation in the respective country and the government debt situation have a greater effect, with the latter affecting the financing capabilities of public-sector clients. Reduced (or increased) availability of public funding can have a negative (or positive) impact on the future business performance of Vossloh. In the infrastructure maintenance market, which is 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 light of the persistent growth in rail traffic, these effects should only be temporary in nature.

In the 2018 fiscal year, Vossloh operated worldwide in the markets for rail infrastructure (core business) and rail vehicles (locomotives), and is among the leading providers in selected markets. Vossloh has defined Western Europe, North America, China and Russia as key regional markets for its core divisions, Core Components, Customized Modules and Lifecycle Solutions. The Transportation division, which since the end of 2014 no longer belongs to Vossloh's core business, is mainly operational in Germany, France and Italy.

In Western Europe, the markets for rail infrastructure are defined by the general stability of their political and economic factors. A particular feature of the North American market is the significantly greater volatility of demand, as most of the rail and network operators there are not public clients. The result for North America in 2018 was also burdened with weak demand from the Class-I railroad operators relevant to Vossloh. Activities in other markets – in particular in Asia, South America, Eastern Europe, Australia and Africa – present opportunities for Vossloh as well as additional risks. In Russia, a production site for fastening systems was opened in 2017 which performed slightly better than expected in 2018. In the other named markets, risks may arise in particular as a result of political and social instability, as a result of 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 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. In this context, digitalization and the new business models resulting from it are playing an increasingly important role.

Vossloh classifies the risk situation in its focus market of North America as "medium". The general economic risk and industry-specific risk for the forecast financial targets are otherwise deemed to be low.

Operating risks and opportunities

Operating risks and opportunities can originate from various operational activities, particularly in procurement, production and order processing. In the procurement process, Vossloh seeks to limit price risks by means of long-term contractual agreements or price escalator clauses. However, price escalator clauses are frequently impossible to enforce. 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 does not expect any significant changes in material usage prices in 2019. During the reporting year, the result was negatively burdened, particularly in the Tie Technologies business unit, as a result of an unexpectedly severe increase in steel prices in the USA due to import tariffs. If price increases for materials used should deviate from expectations during the 2019 fiscal year, this could have an impact on the income forecast, particularly in the Core Components division.

Risks can also emerge in the course of the procurement process as a result of the failure of suppliers, quality problems or delays in the supply process. Vossloh attempts to minimize these risks by cooperating with trusted partners of many years. Even though suppliers are carefully selected and 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, quality problems and health, safety and environmental risks. These risks may be intensified if significant investments impact the production processes at a given location and are not sufficiently managed. Vossloh avoids or reduces these risks by means of extensive policies and directives on product and quality management, on product safety, on occupational health and safety and on environmental protection. As of the reporting date of December 31, 2018, over 99 percent of employees were employed in a unit that was certified under at least one international quality, environmental and social standard such as ISO 9001, ISO 14001, ISO 50001, OHSAS 18001 or ISO 45001. If newly acquired units do not hold equivalent certifications, they are brought into compliance with these standards as quickly as possible.

In the context of order processing, risks for Vossloh may arise from the complexity of projects. This applies in cases of 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. Particularly in the Transportation division, which is no longer part of the core business and is reported as discontinued operations, increased risks can occur during the start-up phase of new projects with correspondingly high development costs or in cases of first-time cooperations with new partners or subcontractors, leading to additional expenditure or contractual penalties. These risks can be limited, but not fully eliminated, by formulating contracts appropriately and ensuring that project and quality management are thorough. On the other hand, there may be isolated opportunities if the recognized risk provisions do not need to be fully utilized.

Risks may also arise after acquisitions where it becomes necessary to impair goodwill if the medium-term operational performance of the units in question is significantly weaker than expected or if the general interest level increases substantially. 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. The Company also carries out impairment testing during the year if exceptional events occur. This testing involves a comparison of the relevant carrying amount of a cash-generating unit (CGU) in relation to the goodwill of acquired companies against the value in use. Divestment projects may also result in risks or opportunities if the existing carrying amounts are not fully covered by a buyer's attainable purchase price or expected attainable purchase price, or if the purchase price exceeds the existing carrying amounts.

Vossloh has recognized risk provisions for existing operational risks, in accordance with IFRS requirements. Despite the risk provisions for known risks with a very high probability of occurrence, the risk of net profit reductions arising from product development and the completion of projects 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 deems the risk arising from the completion of projects to be of a medium nature. The other operating risks are all deemed to be low. In the Transportation division, which is planned for disposal, there is also the medium to high risk that the existing carrying amounts are not fully covered by a buyer's expected attainable purchase price.

Financial risks and opportunities

Group Treasury monitors and manages financial risks and continuously optimizes the Group's finances. 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 also reported as hedge relationships in the balance sheet and only make use of previously approved, market-standard financial instruments. The trade, performance and controlling functions are organizationally separated. Detailed information on existing derivative financial instruments is provided in the notes from page 140 onwards. 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. Revenue sharing measures within the Group with the help of cash pooling systems (see glossary, page 165) 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 July 2017, Schuldschein loans were granted amounting to €135 million (maturity: July 2021) and €115 million (maturity: July 2024). A syndicated loan concluded with eight banks for €150 million with a term until November 2023 has been in effect since November 2017. The term can optionally be extended by an additional year. The volume of the loan can be increased if needed by an additional €150 million. The funds are available to the Company in the form of a revolving line of credit that can be flexibly accessed. Interest is applied to drawdowns based on the amount of the agreed covenant (net financial debt relative to EBITDA) as well as the extent of the drawdowns on the line of credit. If the agreed maximum value of this covenant is exceeded, this will allow the lending banks to terminate the agreement ahead of time.

Compliance with the covenant has to be proven every six months and was affirmed as of the half year and as of the reporting date. Detailed information on the available lines of credit is provided in the notes on page 145.

There are presently no financing or liquidity shortages. Vossloh deems 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. 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. The probability of the interest rate changing at short notice and the impact of this on cash flows is deemed to be low. The risk is therefore also deemed to be low.

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 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 2018, of the financial investments and derivative financial instruments with positive market values, 30 percent were with contract partners with a rating of AA+ to AA–, 56 percent were with contract partners with a rating of A+ to A–, 10 percent were with contract partners with a rating of BBB+ to BBB–, while 4 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.

Vossloh's customers are often public sector clients. In these cases, the credit risk is usually deemed to be very low. However, outstanding amounts owed are continuously monitored. Some are 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, transactions are usually concluded with letters of credit to limit the credit risk.

Due to the high share of business with public clients and the restriction to contract partners with good or excellent credit ratings, the credit risk is deemed to be low.

Overall, there were no major effects on net profit/loss in 2018 resulting from financial risks.

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 and income statement through provisions. However, it is impossible to eliminate the possibility that losses may arise that are not (adequately) insured or exceed the established provisions. On the other hand, there may be isolated opportunities if risk provisions are not utilized entirely. During the reporting year, for example, a recognized risk provision for a major project in the UAE was able to be dissolved in sections.

Group companies of Deutsche Bahn AG have asserted compensation claims against the Group company 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 is still the risk of joint and several liability for as yet unsettled damages. For any outstanding entitlements, Vossloh Rail Center GmbH, Hamburg, 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 affirmation of individual customer claims is deemed to be very likely and a reliable estimate of potential compensation amounts seems possible.

Since the end of 2014, the Transportation division no longer belongs to the core business of the Vossloh Group. The Rail Vehicles business unit was sold in 2015. At the start of 2017, the sale of the Electrical Systems business unit was completed. The purchasers of the two business units were granted certain guarantee rights and rights of recourse in the purchase agreements. Risk provisions have been recognized for any claims asserted on the basis of these rights, where utilization of the guarantees and rights of recourse is deemed to be very likely. Opportunities may arise if the recognized risk provisions do not need to be fully utilized. In the 2018 fiscal year, recognized risk provisions from the sale of the former Electrical Systems and Rail Vehicles business units were partially dissolved.

For the legal risks that still apply, 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 deemed to be of a medium nature.

Nonfinancial risks and opportunities[1]

According to the nonfinancial Group statement[2], 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 risks that satisfy the criteria described. Vossloh therefore deems the risk situation in connection with nonfinancial risks to be low.

[1] Part of the nonfinancial statement audit for providing limited assurance – see page 82.

[2] Not part of the financial statement audit, but part of an audit to obtain limited assurance – see page 82.

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. Training activities serve to provide employees with additional qualifications, 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. Through the use of technical and organization precautions, Vossloh minimizes risks related to the reliability, availability and confidentiality of the data stored in its information systems. They also ensure that data is processed efficiently. In this context, a data protection policy was adopted in May, 2018, for all Vossloh companies.

Vossloh has been listed in the SDAX index of Deutsche Boerse since March 2013. The main criteria for inclusion in the index are the available market capitalization and the volumes traded on the Frankfurt Stock Exchange. Inclusion in the SDAX index is presently jeopardized by the declining trading prices and the lower trading volumes compared to other SDAX companies. During the period of the preparation of the management report until the end of February 2019, Vossloh was listed in the SDAX. The next periodic adjustment of the index will be announced by Deutsche Boerse at the beginning of March 2019. The potential exclusion from the index may result in the share becoming less attractive and may possibly cause trading volumes to fall further. The financing opportunities for larger acquisitions – for example by means of capital increases – would possibly be worse if excluded from the SDAX.

Other risks had no significant impact on the net income in 2018. Significant potential negative effects on the forecast financial targets are improbable from a current perspective. For this reason, the risk is classified as low.

Summary of the risk and opportunities situation

All of the described risks and opportunities that the Vossloh Group is 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. For risks that are currently known, risk provisions have been recognized in accordance with IFRS. Other current risks and opportunities are – if adequately specified – accounted for in the current annual outlooks. 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 opportunities report relates to the situation of the Group as of the time the combined management report was prepared.

Description of the essential features of the internal control and risk management systems in relation to the financial reporting process/consolidated financial reporting process (Section 289 (4) and Section 315 (4) HGB)

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). It serves to quickly identify, manage and monitor risks that jeopardize the Group as a going concern as well as other risks beyond the original, legally stipulated scope. The Group auditor assesses the functional capacity of the early-warning risk control system in accordance with Section 317 (4) HGB. 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.

The Internal Audit is largely responsible for the internal control system at Group level, as are the Controlling, Accounting, Treasury and Legal departments. 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 division also ensures that monitoring is integrated into processes.

The Supervisory Board, in particular the Audit Committee, Vossloh AG's Internal Audit division and the locally appointed employees at the level of the management companies of the business units are tasked with performing process-independent audits. The (Group) auditor also performs process-independent auditing activities. The audit of the consolidated financial statements and subject-specific audits in connection with the pre-audit of financial statements are considered particularly essential process-independent monitoring activities in relation to the (Group) accounting process.

Information technology
Accounting transactions are recorded locally in the local accounting systems of the Group companies. For the preparation of 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: 10.2.1) is used to both consolidate and provide additional management information.

With a small number of exceptions, the accounting of Group companies is carried out with a standardized system from the manufacturer 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 the Core Components, Customized Modules and Lifecycle Solutions divisions. It has also been introduced for the North American companies in the Tie Technologies business unit.

(Group) accounting risks
The preparation of the financial statements requires a range of assumptions and estimates. Such estimates affect the values recognized for reported assets and liabilities, as well as for contingent liabilities as of the balance sheet date. They also affect how income and expenses in the reporting period are reported. The misuse of necessary discretionary scope can lead to (Group) accounting risks.

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 on the basis of the accounting rules laid out in the International Financial Reporting Standards as adopted by the European Union. These contain not only general accounting principles and methods but also provisions on specific balance sheet items, the income statement and the statement of comprehensive income, as well as information to be published in the notes in accordance with legislation applicable in the EU. The manual also governs specific formal

requirements imposed upon the consolidated financial statements. It establishes not only how the group of consolidated companies is defined but also lays out the components of the reporting packages to be prepared by the Group companies in detail. The formal requirements include the binding application of a standardized and complete set of forms.

The “Group Accounting Manual” undergoes regular revision and updates; the most recent update was made in December 2018. New or revised editions are made available as quickly as possible via the Group intranet to all those involved in the Group accounting process.

In addition to the localized registration of accounting transactions within the Group companies, the monthly and annual financial statements are also reviewed by the managing company of the relevant business unit. Checks are triggered by random selection or in particular by major or unusual transactions. Group-wide policies are in place, for instance for investments, submissions of offers, compliance and risk management. The companies and business units of the Vossloh Group are also required to govern local key divisions by means of policies.

Thereafter, Vossloh AG conducts general plausibility checks on the reporting packages provided by the individual companies. These include not only the financial statements of the individual Group companies as adapted to the unified Group accounting standards but also more extensive necessary information for the notes to the consolidated financial statements. The plausibility checks are performed both by Controlling and by Accounting. The financial statements are then consolidated. The correct offsetting of internal Group receivables/liabilities, income/expenses, ownership interrelationships and interim profits from deliveries or services within the Group are regularly checked in accordance with the peer review rule as well as with the application of suitable validation rules in appropriate control files.

Further data is also prepared and aggregated at Group level to provide the information contained 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 contributes to the comprehensive registration, processing and validation of Company transactions and their correct representation 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 with the Group-wide application of the utilized systems, this cannot 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.

Reference to the Declaration on Corporate Governance pursuant to Section 289f HGB

The Declaration on Corporate Governance is reproduced starting on page 32 of this annual report and is a constituent component of the combined management report. The annual report is available at all times from the website of Vossloh AG (www.vossloh.com).

Outlook

This combined management report contains forward-looking statements that are based on forecasts of the Vossloh management in relation to the future development of the Group. This outlook is based on assessments made by the management on the basis of all information available at the time the report was prepared. Assumptions regarding the future development of the international rail technology market and the specific business expectations of the core divisions of the Vossloh Group have been taken into particular 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 management (starting on page 83). If the assumptions underlying the outlook prove to be inaccurate or the described risks or opportunities occur, the actual results and developments may differ from these forecasts. The Vossloh Group accepts no liability for updating the statements made in this combined management report beyond statutory publication requirements.

Macroeconomic developments and outlook for the rail technology market in relation to the European rail industry association

The short- and medium-term fluctuations of the global economy are generally of secondary importance to Vossloh. Investments in rail infrastructure are generally made around the world on the basis of long-term decision-making processes. The current economic trends are therefore only reflected in rail markets to a limited degree. Changes in the debt ratios of individual countries are more relevant to Vossloh, especially those of the Company's home market of Europe.

The Organisation for Economic Co-operation and Development (OECD) anticipates that the European trend towards reduced government debt apparent since 2015 will continue. It expects the debt ratios of the 19 eurozone countries and all of the European Union's member states (EU-28) to fall further in 2019.

With its World Rail Market Study, the Association of the European Rail Industry UNIFE publishes an extensive biannual analysis of developments in the global rail technology market, and makes justified predictions for the coming years on this basis. The most recent study was presented in September 2018 at InnoTrans, the trade fair for transport technology, in Berlin. It predicted that annual global volumes for the overall rail technology market would grow from an average of €163 billion between 2015 and 2017 to an average of around €192 billion between 2021 and 2023 – an average increase of 2.7 percent per year. The market accessible to European providers such as Vossloh in the future is estimated by UNIFE to be worth approximately €120 billion per year. Accessible markets refers to the markets that are available to European suppliers and in which demand is not exclusively met by domestic capacity. For markets that can only be addressed by European suppliers via joint venture structures, half of the market volume is classified as accessible. For comparison, a market volume of around €103 billion per year is currently deemed to be accessible. The expected increase to €120 billion represents growth of 2.6 percent per year.

A study by the consulting firm SCI Verkehr, also published at Innotrans 2018, arrived at a similar result to that of the rail industry association's experts. It estimates that the total volume of the global rail technology market will grow from the current €183 billion by an annual average of 2.8 percent until 2022.

However, if broken down according to region, the forecast market growth varies greatly. UNIFE anticipates that the accessible markets in Latin America (5.3 percent), Africa/Middle East (3.8 percent) and the NAFTA region (3.1 percent) will see above-average growth in the coming years. The largest rail engineering market accessible to Vossloh has been and continues to be Western Europe, with an annual volume of just over €37 billion in the 2015–2017 period. Market growth of 2.3 percent per year to around €43 billion is anticipated between 2021 and 2023. This is followed by the NAFTA region with a current annual market volume of €26 billion and future annual market volume of €32 billion and the Asia-Pacific region with a volume of just under €17 billion, expected to rise to €20 billion. At present, these three regions host more than three quarters of the total accessible rail technology market.

The Association of the European Rail Industry breaks the rail technology market down into the segments of infrastructure, rolling stock, rail control, services and turnkey projects. With its core divisions of Core Components, Customized Modules and Lifecycle Solutions, Vossloh operates in the infrastructure segment and the infrastructure services subsegment of the services segment. The volume of the globally accessible infrastructure market has been quantified by UNIFE at roughly €21 billion per year in the period between 2015 and 2017. The forecast growth up to the 2021–2023 period is 2.8 percent annually, resulting in an annual future market volume of around €25 billion. The growth forecast for the infrastructural services subsegment until the 2021–2023 period is also 2.8 percent, meaning that an increase in the accessible market volume is expected from the current €6.1 billion per year to €7.1 billion. In total, the accessible market that is relevant to Vossloh between 2015 and 2017 came to around €27 billion per year.

Outlook for 2019 and assessment for 2020

The forecast for the Vossloh Group is based on the expected development of the three core divisions of Core Components, Customized Modules and Lifecycle Solutions, as well as that of Vossloh AG. In addition to general industry-specific conditions, Vossloh's sales revenue planning also incorporates division-specific assumptions in particular. 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 context of longer-term funding sources. Vossloh supports its customers as a partner over the long term. The Company works with them to plan and develop solutions to satisfy individual product and service needs. This usually involves delivery and project lead times of several months, and sometimes even several years.

Based on current knowledge, Vossloh assumes that it will be able to generate sales between €900 million and €1 billion in 2019. In the Core Components division, Vossloh anticipates substantially higher sales revenue than in 2018. In the Tie Technologies business unit, this can primarily be attributed to the acquisition of the Australian company Austrak Pty Ltd. Higher overall sales are also forecast for the Fastening Systems business unit. Due to the fact that a significant proportion of the high level of orders received in China in 2018 will only lead to sales in the 2020 fiscal year, Vossloh expects sales revenues in China in 2019 to remain at about the same level as the previous year. The expansion of the rail network in China is expected to continue at the same robust pace. The country wants to expand its high-speed network from its current size of roughly 25,000 kilometers to approximately 38,000 kilometers by 2025. Vossloh has maintained a consistently stable market position in this segment as a supplier of rail fastening systems. The Vossloh Group also expects sales revenue to be higher in 2019 compared to 2018 for the Customized Modules and Lifecycle Solutions divisions. The increase in sales revenue in Lifecycle Solutions is primarily a result of the acquisition of the rail milling business of STRABAG Rail GmbH.

Due to the significantly better visibility for China business beyond 2019, the Executive Board has determined to make an exception and provide an outlook for the following fiscal year, 2020. From today's perspective, Vossloh expects sales revenue of between €950 million and €1.05 billion for the financial year 2020. The forecast increase in sales revenue is based for one thing on the high level of orders received in China in the 2018 fiscal year. Beyond that, higher sales contributions are expected in the USA from the Tie Technologies business unit and the Customized Modules division. In the Lifecycle Solutions division further increases in sales in the milling business are expected.

The Vossloh Group anticipates an EBIT of between €50 million and €60 million in 2019, approximately the same level as the previous year. The forecast increase in sales revenue in the Tie Technologies business unit and the Lifecycle Solutions division can in large part be attributed to the company acquisitions carried out in 2018. Effects of the purchase price allocation and integration expenses will initially exceed the positive earnings contributions from these acquisitions in 2019. In addition, the 2018 fiscal year benefited from one-time effects, such as from the negative goodwill from the acquisition of the rail milling business of STRABAG Rail GmbH. From today’s perspective, Vossloh forecasts EBIT of between €65 million and €80 million for the financial year 2020. The main drivers of this development are the activities in China and the USA.

In 2019, the relevant indicator for internal management – the weighted average cost of capital before taxes (WACC) – will remain unchanged at 7.5 percent. As a consequence of the application of IFRS 16 for the first time and the full-year inclusion of the acquisitions carried out at the end of 2018, a pronounced increase in capital employed is anticipated for the 2019 fiscal year. As a result, value added in 2019 is expected to be noticeably lower than in the previous year. Vossloh anticipates an increase in the average number of employees in the middle of the single-digit percentage range in 2019. This will also largely be due to the acquisitions carried out in 2018.

EBIT for the Core Components division is currently expected to remain at approximately the same level as 2018. A noticeable improvement of EBIT in the Customized Modules division is anticipated. Vossloh expects a lower EBIT for the Lifecycle Solutions division due to the absence of the aforementioned positive one-time effect. Adjusting for this one-time effect, an increase of the EBIT is anticipated.

Risks to Vossloh’s business performance are most notably derived from the persistently challenging situation in the U.S. market. Additional net profit reductions resulting from legal risks and the completion of projects may also have a negative impact on the earnings position. Besides, further accounting losses from the closing of the sale of Vossloh Locomotives cannot be ruled out. Please refer to the statements made in the risk report (starting on page 83) regarding other risks that may affect the stated planning.

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 income of Vossloh AG as an operational management holding company is largely dictated by administration costs and the net financial result. The administrative expenses of Vossloh AG in the 2019 fiscal year are expected to remain at approximately the same level as the previous year. The net financial result is dependent not only on interest expense but also heavily on the income from dividends and profit sharing agreements, as well as expenses from the assumption of losses and impairment losses recognized on financial investments. Vossloh is expecting a tangible improvement in this area compared to 2018. The net financial result in 2018 was impacted by the write-down of an investment and the expenses from the assumption of losses for the Transportation division. On the whole, result after tax is expected to improve significantly in 2019.

Over the coming years, Vossloh’s objectives will focus on achieving organic growth while improving profitability, in addition to seeking out potential cooperations and acquisitions in order to strategically evolve the core business and sustainably increase the Company’s value. The planning presented for the 2019 fiscal year only reflects the targeted organic growth.

Consolidated financial statements of Vossloh AG as of December 31, 2018

Income statement

€ mill.	Note	2018	2017
Sales revenues	(1)	865.0	918.3
Cost of sales	(2.1)	(678.7)	(713.2)
General administrative and selling expenses	(2.2)	(144.4)	(148.1)
Research and development costs	(2.3)	(10.9)	(10.3)
Other operating result	(3)	18.4	21.5
Operating result		**49.4**	**68.2**
Income from investments in companies accounted for using the equity method		1.4	0.2
Other financial income	(4.1)	3.4	2.2
Other financial expenses	(4.2)	0.0	(0.3)
Earnings before interest and taxes (EBIT)		**54.2**	**70.3**
Interest income		1.5	3.5
Interest expenses	(5)	(14.9)	(16.0)
Earnings before taxes (EBT)		**40.8**	**57.8**
Income taxes	(6)	(16.0)	(21.7)
Result from continuing operations		**24.8**	**36.1**
Result from discontinued operations	(7)	(2.1)	(35.8)
Net income		**22.7**	**0.3**
thereof attributable to shareholders of Vossloh AG		**18.2**	**(8.0)**
thereof attributable to noncontrolling interests	(8)	4.5	8.3
Earnings per share			
Basic/diluted earnings per share (€)	(9)	1.14	(0.50)
thereof attributable to continuing operations		1.27	1.74
thereof attributable to discontinued operations		(0.13)	(2.24)

Statement of comprehensive income

€ mill.	Note	2018	2017
Net income		**22.7**	**0.3**
Changes in fair value of hedging instruments (cash flow hedges)		0.2	0.6
Currency translation differences		(2.4)	(5.6)
Changes in the fair value of securities available for sale		0.0	0.0
Income taxes		0.0	(0.2)
Amounts that will potentially be transferred to profit or loss in future periods		**(2.2)**	**(5.2)**
Remeasurement of defined benefit plans		0.3	0.5
Income taxes		0.2	(0.2)
Amounts that will not be transferred to profit or loss in future periods		**0.5**	**0.3**
Income and expenses recognized directly in equity		**(1.7)**	**(4.9)**
Total comprehensive income		**21.0**	**(4.6)**
thereof attributable to shareholders of Vossloh AG		16.7	(12.0)
thereof attributable to noncontrolling interests		4.3	7.4

Cash flow statement for the period from January 1 to December 31, 2018

€ mill.	2018	2017
Cash flow from operating activities		
Earnings before interest and taxes (EBIT)	54.2	70.3
EBIT from discontinued operations	(1.8)	(35.6)
Amortization/depreciation/impairment losses (less write-ups) of noncurrent assets	38.4	63.2
Change in noncurrent provisions	(0.5)	(1.6)
Gross cash flow	**90.3**	**96.3**
Noncash change in investments in companies accounted for using the equity method	(2.0)	(0.3)
Other noncash income/expenses, net	(23.7)	4.1
Net loss/gain from the disposal of noncurrent assets	(0.4)	(1.2)
Income taxes paid	(18.0)	(29.1)
Change in working capital	(2.5)	(42.7)
Changes in other assets/liabilities, net	(6.1)	(2.6)
Cash flow from operating activities	**37.6**	**24.5**
Cash flow from investing activities		
Investments in intangible assets and property, plant and equipment	(57.1)	(41.0)
Investments in companies accounted for using the equity method	(1.2)	(6.3)
Cash-effective dividends from companies accounted for using the equity method	0.2	0.5
Proceeds from the disposal of companies accounted for using the equity method	1.5	0.0
Free cash flow	**(19.0)**	**(22.3)**
Investments in noncurrent financial instruments	(0.2)	(0.6)
Proceeds from the disposal of intangible assets and property, plant and equipment	3.4	1.8
Proceeds from disposals of noncurrent financial instruments	1.3	0.1
Proceeds from the disposal of consolidated companies	0.0	42.4
Payments for the acquisition of consolidated companies	(42.9)	(121.1)
Cash flow from investing activities	**(95.0)**	**(124.2)**
Cash flow from financing activities		
Disbursements to shareholders and noncontrolling interests	(20.3)	(6.8)
Net financing from short-term loans	30.4	(11.9)
Net financing from medium-term and long-term loans	14.9	51.8
Repayments from finance leases	(0.2)	0.0
Interest received	1.5	3.8
Interest paid	(15.4)	(16.2)
Cash flow from financing activities	**10.9**	**20.7**
Net cash inflow/outflow	(46.5)	(79.0)
Exchange rate effects	(0.6)	(1.5)
Opening cash and cash equivalents	**98.1**	**178.6**
Closing cash and cash equivalents	**51.0**	**98.1**

For more information on the cash flow statement, see page 118 et seq.

Balance sheet

Assets in € mill.	Note	12/31/2018	12/31/2017
Intangible assets	(10)	301.3	280.4
Property, plant and equipment	(11)	268.6	212.5
Investment properties	(12)	2.2	2.8
Investments in companies accounted for using the equity method	(13)	66.2	64.2
Other noncurrent financial instruments	(14)	7.7	8.9
Other noncurrent assets	(15)	4.3	3.5
Deferred tax assets	(16)	13.4	23.7
Noncurrent assets		**663.7**	**596.0**
Inventories	(17)	174.8	154.3
Trade receivables	(18)	212.6	210.3
Contract assets	(18)	6.9	6.6
Income tax assets	(19)	7.6	7.8
Other current financial instruments	(20)	27.9	30.2
Other current assets	(20)	18.2	13.0
Short-term securities	(21)	0.5	0.5
Cash and cash equivalents	(22)	48.7	96.3
Current assets		**497.2**	**519.0**
Assets held for sale	(7)	104.5	137.9
Assets		**1,265.4**	**1,252.9**

Equity and liabilities in € mill.	Note	12/31/2018	12/31/2017
Capital stock	(23.1)	45.3	45.3
Additional paid-in capital	(23.2)	146.5	146.5
Retained earnings and net income	(23.3)	318.7	321.7
Accumulated other comprehensive income	(23.4)	2.0	3.9
Equity excluding noncontrolling interests		**512.5**	**517.4**
Noncontrolling interests	(23.5)	10.8	15.0
Equity		**523.3**	**532.4**
Pension provisions	(24)	22.1	22.4
Other noncurrent provisions	(25)	17.0	23.9
Noncurrent financial liabilities	(26.1)	267.9	248.8
Noncurrent trade payables	(26.2)	0.0	0.0
Other noncurrent liabilities	(26.4)	7.4	4.6
Deferred tax liabilities	(16)	7.1	12.8
Noncurrent liabilities		**321.5**	**312.5**
Other current provisions	(25)	36.4	44.4
Current financial liabilities	(26.1)	88.6	55.7
Current trade payables	(26.2)	139.2	141.9
Current contract liabilities	(26.2)	0.0	0.0
Current income tax liabilities	(26.3)	1.8	6.3
Other current liabilities	(26.4)	84.0	72.7
Current liabilities		**350.0**	**321.0**
Liabilities held for sale	(7)	70.6	87.0
Equity and liabilities		**1,265.4**	**1,252.9**

Statement of changes in equity

				Accumulated other comprehensive income						
€ mill.	Capital stock	Additional paid-in capital	Retained earnings and net income	Currency translation	Financial instruments available for sale	Hedging transactions	Remeasurement of defined benefit plans	Equity excluding noncontrolling interests	Noncontrolling interests	Total
As of 12/31/2016	**45.3**	**146.5**	**333.2**	**11.0**	**0.0**	**(0.7)**	**(2.5)**	**532.8**	**18.0**	**550.8**
Transfer to retained earnings			(2.5)				2.5	0.0		0.0
Change in the scope of consolidation			(1.0)	(2.1)		(0.3)		(3.4)	(3.6)	(7.0)
Net income			(8.0)					(8.0)	8.3	0.3
Income and expenses recognized directly in equity after taxes				(4.7)	0.0	0.4	0.3	(4.0)	(0.9)	(4.9)
Dividend payments								0.0	(6.8)	(6.8)
As of 12/31/2017	**45.3**	**146.5**	**321.7**	**4.2**	**0.0**	**(0.6)**	**0.3**	**517.4**	**15.0**	**532.4**
Conversion effects from the application of new standards*			(6.2)					(6.2)	0.0	(6.2)
Transfer to retained earnings			0.3				(0.3)	0.0		0.0
Change in the scope of consolidation		0.0	0.7	0.0		0.0		0.7	0.0	0.7
Net income			18.2					18.2	4.5	22.7
Income and expenses recognized directly in equity after taxes				(2.2)		0.1	0.5	(1.6)	(0.2)	(1.8)
Dividend payments			(16.0)					(16.0)	(8.5)	(24.5)
As of 12/31/2018	**45.3**	**146.5**	**318.7**	**2.0**	**0.0**	**(0.5)**	**0.5**	**512.5**	**10.8**	**523.3**

For more information on accumulated comprehensive income, please refer to sections 23.1 through 23.5 in the Notes.

* In regard to the conversion effects from the application of new standards (IFRS 9 and IFRS 15), please refer to the statements on pages 104 et seq.

Notes to the consolidated financial statements of Vossloh AG as of December 31, 2018

Segment information by division and business unit

€ mill.		Fastening Systems	Tie Technologies	Consolidation	Core Components	Customized Modules (Switch Systems)	Lifecycle Solutions (Rail Services)
Value added	2018	21.4	(3.8)	(0.1)	17.5	(6.4)	2.2
	2017	37.7	(3.3)	(0.1)	34.3	(1.3)	(3.5)
Information from income statement/flow figures							
External sales revenues	2018	208.5	74.7	–	283.2	480.9	97.0
	2017	264.0	78.5	–	342.5	480.6	87.3
Intersegment sales revenues	2018	8.3	3.4	(2.3)	9.4	1.7	3.0
	2017	9.4	0.7	(1.2)	8.9	2.7	3.7
Depreciation/amortization	2018	6.8	9.5	0.0	16.3	12.8	6.1
	2017	7.7	8.5	0.0	16.2	14.5	6.7
Investments in noncurrent assets	2018	6.7	10.5	0.0	17.2	28.1	14.9
	2017	9.4	3.3	0.0	12.7	18.5	8.6
Income from investments in companies accounted for using the equity method	2018	0.7	0.0	0.0	0.7	0.3	0.4
	2017	(0.3)	0.0	0.0	(0.3)	0.2	0.3
Result from discontinued operations	2018	0.0	0.0	0.0	0.0	0.0	0.0
	2017	0.0	0.0	0.0	0.0	0.0	0.0
Other material noncash segment expenses	2018	6.8	0.9	–	7.7	6.2	0.7
	2017	6.6	0.0	–	6.6	8.0	7.0
Impairment losses	2018	0.0	–	–	0.0	0.0	0.0
	2017	1.3	–	–	1.3	0.3	0.0
Reversals of impairment losses	2018	0.0	0.0	0.0	0.0	0.2	0.0
	2017	0.0	0.0	0.0	0.0	7.2	0.0
Information from the balance sheet							
Total assets	2018	201.2	175.6	(0.5)	376.3	605.3	213.0
	2017	211.7	131.3	(0.5)	342.5	575.1	174.3
Liabilities	2018	121.1	49.2	(0.4)	169.9	308.9	196.3
	2017	119.7	40.3	(0.5)	159.5	280.7	161.4
Investments in companies accounted for using the equity method	2018	4.0	0.0	0.0	4.0	50.2	12.0
	2017	4.8	0.0	0.0	4.8	49.2	10.2
Annual average headcount (monthly values)	2018	577	220	0	797	2,404	509
	2017	644	209	0	853	2,546	473

* The Consolidation column incorporates the elimination of reclassified income, expenses and balance sheet items of reporting segments reported as discontinued operations as required in accordance with IFRS 5.

Discontinued operations / Locomotives	Discontinued operations / Electrical Systems	Consolidation*	Transportation	Holding companies	Consolidation	Group
(25.6)	–	25.2	**(0.4)**	4.9	(23.6)	**(5.8)**
(17.1)	–	16.7	**(0.4)**	17.4	(35.4)	**11.1**
200.9	–	(200.9)	**0.0**	0.1	–	**861.2**
97.2	11.7	(108.9)	**0.0**	0.3	–	**910.7**
0.0	–	0.0	**0.0**	0.1	(10.4)	**3.8**
0.0	0.5	(0.5)	**0.0**	1.1	(8.8)	**7.6**
6.0	–	(6.0)	**0.0**	0.5	0.0	**35.7**
4.1	0.3	(4.4)	**0.0**	0.7	0.0	**38.1**
3.1	–	(3.1)	**0.0**	0.4	(0.1)	**60.5**
7.4	0.3	(7.7)	**0.0**	0.9	(1.2)	**39.5**
(0.2)	–	0.2	**0.0**	0.0	0.0	**1.4**
0.0	0.0	0.0	**0.0**	0.0	0.0	**0.2**
(15.9)	–	–	**(15.9)**	13.8	–	**(2.1)**
(37.2)	(1.5)	0.0	**(38.7)**	0.0	2.9	**(35.8)**
8.7	–	(8.7)	**0.0**	1.5	0.0	**16.1**
4.0	0.0	(4.0)	**0.0**	19.0	0.0	**40.6**
–	–	–	**–**	–	–	**0.0**
0.0	0.0	0.0	**0.0**	0.0	0.0	**1.6**
0.0	–	0.0	**0.0**	0.0	0.0	**0.2**
0.0	0.0	0.0	**0.0**	0.0	(1.1)	**6.1**
144.9	–	(22.6)	**122.3**	1,313.1	(1,364.6)	**1,265.4**
180.8	–	(26.0)	**154.8**	1,266.4	(1,260.2)	**1,252.9**
119.0	–	(71.4)	**47.6**	612.2	(663.4)	**671.5**
150.3	–	(90.4)	**59.9**	569.6	(597.6)	**633.5**
0.0	–	0.0	**0.0**	0.0	0.0	**66.2**
0.2	0.0	(0.2)	**0.0**	0.0	0.0	**64.2**
449	–	(449)	**0**	63	0	**3,773**
407	75	(482)	**0**	62	0	**3,934**

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 development, manufacturing and sale of products as well as the provision of services of all varieties in the field of transport technology, particularly in rail infrastructure and railbound vehicles, 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), as well as with the supplementary regulations of Section 315a (1) of the German Commercial Code (HGB). All mandatorily applicable standards as of the balance sheet date have been considered.

On February 28, 2019, 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 IASB or endorsed by the EU during 2018 but were not yet mandatorily applicable for the 2018 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. Unless otherwise stated, the impact on the consolidated financial statements is currently being reviewed.

Standard	Publication	First-time application	Endorsed by the EU	Key content and impact on the consolidated financial statements of Vossloh AG
New or amended standards				
IFRS 16: Leasing	January 2016	2019	October 2017	See separate explanations
IFRS 17: Insurance Contracts	May 2017	2021	./.	None
Amendments to IFRS 3: Definition of Business	October 2018	2020	./.	Cannot be estimated – dependent on future transactions
Amendments to IFRS 9: Prepayment Features with Negative Compensation	October 2017	2019	March 2018	None
Annual Improvements to IFRS Standards 2015–2017	December 2017	2019	./.	None
Amendments to IAS 1 and IAS 8: Definition of Material	October 2018	2020	./.	The adjusted definition of materiality may be relevant to individual balance sheet accounting issues
Amendments to IAS 19: Plan Amendment, Curtailment or Settlement	February 2018	2019	./.	None
Amendments to IAS 28: Long-term Interests in Associates and Joint Ventures	October 2017	2019	./.	None
IFRIC 23: Uncertainty over Income Tax Treatments	June 2017	2019	October 2018	None
Amendments to References to the Conceptual Framework in IFRS Standards	March 2018	2020	./.	None

Estimated impact of the first-time application of IFRS 16

In the 2019 fiscal year, IFRS 16 - Leases will be applied for the first time. We have provided comprehensive information on general aspects of the amendment to the accounting treatment of leases in the case of a lessee in the 2017 annual report.

The conversion to IFRS 16 will take place in the Vossloh Group by applying the relevant transitional provisions as follows:

- The previous assessment of existing contracts with regard to their classification as leases in accordance with IAS 17 or IFRIC 4 will be adopted.

- The first-time application of the new accounting method will be limited retrospectively. In this respect, the cumulative changes in the existing leases at the time of the first-time application of IFRS 16 (= January 1, 2019) are reported and recognized in the values carried forward to the 2019 fiscal year. The comparative figures for the 2018 fiscal year remain unchanged.

- Contracts previously categorized as operating leases will be recognized for the first time on January 1, 2019. In this case, the liability to be recognized is calculated in the amount of the present value of the remaining lease installments. The marginal financing rate of Vossloh AG is used as a discount rate on the basis of the Group financing principle. The right of use is typically recognized at the amount that would have occurred in the event of a full retrospective treatment of the individual lease agreement as of January 1, 2019. Any difference between assets and liabilities that arise as a result of this is recognized directly in retained earnings.

Short-term leases (term including extension options of up to one year maximum) and low-value assets are excluded from the generally required accounting treatment in accordance with the exemptions set out in IFRS 16. In such cases, the contractual lease payments continue to be recognized as operating expenses at the time of payment. Low-value assets include, in particular, leased office equipment and other equipment. By capitalizing the rights of use for all other leases and the recognition of the corresponding lease liabilities, Vossloh expects the balance sheet total to be increased to a range of €65 million to €70 million a result of the application of IFRS 16.

At the same time, the presentation of the profit and loss components of a lease will change in the income statement. While leasing rates were recognized as operating expenses in accordance with IAS 17 when classifying them as operating leases, the new rules result in an expense recognition in two areas: on the one hand in the operating expenses through the amortization of the capitalized rights of use, on the other hand in the interest expense due to the compounding of the lease liability recognized as a present value. This tends to improve the operating result compared to the current regulation. However, the accounting treatment significantly increases both capital employed and net financial liabilities. Thus, the impact on ROCE and the value added cannot be determined. Due to the provisions of the syndicated loan concluded in November 2017, the conversion of the lease accounting has no effect on compliance with the financial ratios since the corresponding key figures are determined on the basis of the previous accounting method.

First-time application of standards and interpretations

In the 2018 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 IFRS 2: Classification and Measurement of Share-based Payment Transactions	June 2016	February 2018
Amendments to IFRS 4: Application of IFRS 9: Financial Instruments together with IFRS 4: Insurance Contracts	September 2016	November 2017
IFRS 9: Financial Instruments	July 2014	November 2016
IFRS 15: Revenue from Contracts with Customers	May 2014	September 2016
Clarifications to IFRS 15: Revenue from Contracts with Customers	April 2016	November 2017
Amendments to IAS 40: Transfers of Investment Property	December 2016	March 2018
Annual improvements to IFRS Standards, 2014-2016 cycle	December 2016	February 2018
IFRIC 22: Foreign Currency Transactions and Advance Consideration	December 2016	March 2018

IFRS 9: Financial Instruments

IFRS 9: Financial Instruments regulates the recognition and measurement of financial assets, financial liabilities and certain contracts for the acquisition or disposal of nonfinancial items. IFRS 9 was adopted into European law on November 22, 2016, and published in the Official Journal of the European Union on November 29, 2016. The standard replaces the previous standard IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 classifies financial assets into three categories:

- 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)

Under IAS 39, the majority of financial assets were classified in the category of "loans and receivables", which encompassed trade receivables, cash and cash equivalents and a portion other assets. These are still recognized at amortized cost under IFRS 9. There are also no significant changes due to the application of new standards for the categorization of financial liabilities.

As of 12/31/2017 as well as 12/31/2018, equity instruments were only recognized by the Vossloh Group to an insignificant extent.

The new categorization of financial assets and liabilities can be found in the following table

Measurement categories under IAS 39	Measurement categories under IFRS 9	IAS 39 carrying amounts as of 1/1/2018	Reclassification	Remeasurement	IFRS 9 carrying amounts as of 1/1/2018
Trade receivables					
Loans and receivables	Amortized cost	210.3		(0.9)	209.4
Securities					
Held to maturity	Amortized cost	0.1			0.1
Available for sale	Fair value through OCI (FVOCI)	0.4			0.4
Other financial instruments and other assets					
Loans and receivables	Amortized cost	29.3			29.3
Held to maturity	Fair value through OCI (FVOCI)	2.7			2.7
Available for sale	Amortized cost	0.6			0.6
Interest rate swaps	Fair value through profit or loss (FVTPL)	0.0			0.0
Freestanding derivatives	Fair value through profit or loss (FVTPL)	3.4			3.4
Cash and cash equivalents					
Loans and receivables	Amortized cost	96.3			96.3
Financial liabilities	Amortized cost	304.5			304.5
Trade payables	Amortized cost	141.9			141.9
Other liabilities					
Sundry liabilities	Amortized cost	55.2			55.2
Interest rate swaps	Fair value through profit or loss (FVTPL)	0.0			0.0
Freestanding derivatives	Fair value through profit or loss (FVTPL)	0.0			0.0
Cash flow hedges	Fair value through OCI (FVOCI)	0.3			0.3

Impairments of financial assets are explained and recognized in the notes to the consolidated financial statements. Impairments of other financial assets are recognized within the financial result.

IFRS 9 introduces the concept of “expected credit losses” as an impairment model. The new impairment model applies to financial assets classified as “Measurement at amortized cost” and “Measurement at fair value through other comprehensive income (FVOCI)” and to contract assets in accordance with IFRS 15. Trade receivables are the main application. The expected credit losses are determined through an analysis over a period of three years of sales and the actual write-downs of receivables using a customer-based segmentation. Impairments in varying amounts are determined in relation to the degree of overdue receivables. Future-oriented region-specific and country-specific information is also taken into consideration.

For cash and cash equivalents, the rating and the associated average probability of default of the credit institution are used.

When hedge accounting is used, the methodology of IAS 39 is maintained by exercising an option.

In the transition to IFRS 9, comparative information for previous periods will not be adjusted for changes in classification and measurement (including impairment). Differences between the carrying amounts of financial assets and financial liabilities due to the application of IFRS 9 were recognized directly in retained earnings at an amount of €(0.7) million and in the shares of noncontrolling interests at an amount of €(0.0) million as of January 1, 2018. The reduction in the carrying amounts concern trade receivables at an amount of €0.9 million and assets held for sale at an amount of €(0.2) million. Effects of the introduction of IFRS 9 beyond these were negligible overall.

Allowances as of 12/31/2017 in accordance with IAS 39	13.4
Additional need for impairment on trade receivables as of 1/1/2018	0.9
Allowances as of 1/1/2018 in accordance with IFRS 9	14.3

IFRS 15: Revenue from Contracts with Customers

The standard comprehensively regulates the accounting for sales revenues in terms of the amount and timing of their recognition. In this respect, IFRS 15 replaces the provisions in IAS 11 and IAS 18. We have provided comprehensive information on general aspects of the change in revenue recognition in the 2017 annual report. Overall, the effects of the application of IFRS 15 are not substantial.

Under IFRS 15, sales revenues are recognized when a customer gains control of the goods and services. For the vast majority of transactions, this occurs at a specific time. However, with a smaller number of business transactions, this occurs over a longer or shorter period.

When delivering standardized bulk goods such as tension clamps or concrete ties, revenue is realized when they are inspected and handed over to the customers. The transfer of risk is normally used as an indication of the transfer of control depending on the delivery conditions (incoterms) stipulated in the contract.

For services such as rail logistics, rail maintenance and similar services, the total charge for all services is split based on their stand-alone selling prices. These prices are set, where applicable, on the basis of the list prices at which the Group offers the services in separate transactions.

For customer-specific orders, particularly specialized rail vehicles, which are manufactured according to specific customer requirements, accounting was carried out in past fiscal years in accordance with IAS 11: Construction Contracts, which provides for revenue recognition over a period of time in accordance with the percentage of completion method.

IFRS 15 has significantly limited the options for applying revenue recognition over a period of time. As a result, Vossloh recognizes revenue over a period of time if Vossloh is contractually entitled to a pro rata remuneration, including a margin, measured in terms of performance at all times, even if the contract is terminated by the customer, and the agreed performance obligations can only be used by the customer. At Vossloh, these conditions were not met in several cases, one of which being in the Locomotives business unit.

The equity effect addressed on the next page consists exclusively of the conversion of the revenue recognition for these contracts from the previously applied percentage-of-completion method (revenue recognition over a period of time) to the completed-contract method (revenue recognition at a point in time).

With regard to the transitional rules, the option of using the modified retrospective method has been exercised, according to which the cumulative adjustment amounts are recognized in equity as of January 1, 2018. Accordingly, IFRS 15 is not applied to the comparative period, and is also not applied to certain information in the notes. Overall, this has not resulted in any significant adjustments.

For projects where the conditions of IFRS 15 for revenue recognition over a period of time using the percentage of completion method were not met, revenue recognition was converted to revenue recognition at a point in time. Because the performance obligations had not yet been fully rendered, retained earnings were reduced by €5.5 million as of January 1, 2018. Through the derecognition of Vossloh Locomotives as a "discontinued operation", the otherwise apparent effect of switching revenue recognition over a period of time to revenue recognition at a point in time is not discernible. Within the assets and liabilities held for sale, previous receivables from construction contracts in the amount of €0.1 million, liabilities from construction contracts in the amount of €0.1 million and deferred tax liabilities in the amount of €1.7 million are to be replaced by €26.6 million for work in progress and €32.1 for advance payments received at the conversion date. For contracts in other business units that are to be recognized differently, receivables from construction contracts in the amount of €3.1 million and deferred tax liabilities in the amount of €0.8 million are to be replaced by €4.9 million for work in progress, €4.4 million for advance payments received and provisions of €0.3 million at the conversion date. The total balance of this conversion is the above-mentioned effect on retained earnings.

In the 2018 fiscal year, effects on revenue recognition were incurred particularly as a result of rights of return for individual customers. Vossloh does not record sales for goods which are expected to be returned. In the current fiscal year, reimbursement liabilities for such cases were recognized at an amount of €6.2 million. In this respect, the sales revenues during the year under review would have amounted to €871.2 million under the previous provisions for revenue recognition. For the associated claim to the expected return delivery, an asset in the amount of the original cost of €4.5 million was recognized within other current assets.

No significant influences on the consolidated financial statements have resulted from the first-time application of other standards, amendments of standards or interpretations.

Principles for preparing 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 Group currency is the euro.

The consolidated financial statements are prepared in the euro, the functional currency of the company. Figures are mostly presented in millions of euros. The income statement is structured according to the cost-of-sales method.

Preparing 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 of contingent liabilities as of the balance sheet date, as well as the recognition of income and expenses in the reporting period.

Due to uncertainty, 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 deciding on control in the case of joint ventures in order to distinguish between full consolidation accounting and using the equity method. There is a similar situation with accounting methods for consortia (see "Consolidation"). In addition, such discretionary decisions are required for the classification of leases in property, plant and equipment (see Note 11).

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 (generally speaking) all of its subsidiaries. All subsidiaries, where Vossloh AG usually exercises control by 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 control is obtained until the control relationship expires. The acquisition method (purchase method) of accounting is used for capital consolidation of the subsidiaries. In this regard, the cost of the acquired shares is offset against the Group's holding in the equity of the subsidiaries. To determine the equity of subsidiaries acquired, all identifiable assets, liabilities and contingent liabilities of the subsidiary are recognized at fair value at the acquisition date. 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. Negative goodwill is directly recognized in profit after the values of assets and liabilities have been reassessed. Shares belonging to other investors with a corresponding stake in the identifiable net assets of the respective company acquired are measured at the acquisition date. 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 in connection with the consolidation of liabilities as well as income and expenses. 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. Insofar 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 would be deemed jointly operated and the assets and liabilities, or the expense and income, would be 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 remaining investments are carried at cost, taking into consideration potential impairment, and are presented under other noncurrent financial instruments.

In the 2018 fiscal year, the following changes occurred in the scope of consolidation:

The contract for the acquisition of all shares of Austrak Pty Ltd., Brisbane, Australia, was concluded on November 30, 2018. Austrak develops, manufactures and distributes concrete ties in Australia. This acquisition expands the Company's product portfolio in the Australian concrete ties market and increases Vossloh's vertical integration in the Australian rail infrastructure business. The purchase price amounted to AUD 44.0 million (€27.1 million) as of the balance sheet date and was paid in full using liquid assets. On the basis of the balance sheet at the time of execution, a purchase price adjustment of AUD 1.3 million is due in March 2019 which will lead to a correspondingly higher goodwill. Future business prospects were decisive in determining the goodwill paid in the purchase price. The goodwill has no tax impact. The adjustments to fair value for the intangible assets and property, plant and equipment must be taken into account for tax purposes in some cases.

The purchase price was compensated for by the following assets and liabilities:

€ mill.	Carrying amounts immediately before acquisition	Adjustments	Fair value
Intangible assets	–	3.1	3.1
Property, plant and equipment	3.2	6.4	9.6
Inventories	1.7	0.1	1.8
Trade receivables	3.5	–	3.5
Other current and noncurrent assets	1.0	–	1.0
Cash and cash equivalents	2.0	–	2.0
Current and noncurrent liabilities	(4.7)	(0.9)	(5.6)
Acquired net equity	**6.7**	8.7	**15.4**
Purchase price			27.1
Remaining goodwill			**11.7**

The fair values of the acquired assets and liabilities should be viewed as provisional, since the determination process is at an advanced stage but is not yet complete.

The contribution of the acquired company to sales for the 2018 fiscal year amounted to €1.4 million; the contribution to net income amounted to €(0.1) million. If the acquisition had taken place at the beginning of the fiscal year, €26.3 million would have been contributed to sales revenues and €1.1 million would have been contributed to net income. The transaction costs for the acquisition were €0.7 million. These are reported under general administrative expenses in the income statement. At the time of addition, cash amounted to €2.0 million. The acquired trade receivables correspond to the gross values; no receivables defaults are expected.

As part of an asset deal, a company in the Rail Services business unit took over the rail milling business of STRABAG Rail GmbH on December 21, 2018. The significant assets included four milling machines and the associated replacement parts and further items of equipment. In addition, the employees of this unit also transferred to the Vossloh Group; the order backlog was also taken over and continued. As a result of this acquisition, the existing milling business has been expanded and the market position strengthened. The purchase price for the acquired business was €15.0 million and was paid in full using liquid assets. The fair values at the time of the acquisition, particularly of the acquired milling machines and the customer relationships, resulted in a difference between the fair value of the transferred assets and liabilities and the purchase price (negative goodwill) of €5.5 million, even after reassessing the initially measured fair values. This gain is reported under other operating income in the income statement. Since the seller wished to exit this market segment, it was possible to negotiate a bargain purchase. In terms of tax, the acquisition costs of the business are limited to €15.0 million. The purchase price was compensated for by the following assets and liabilities:

mill.	Fair value
Intangible assets	4.9
Property, plant and equipment	20.1
Other assets	0.8
Current and noncurrent liabilities	(5.3)
Acquired net equity	**20.5**
Purchase price	15.0
Negative goodwill	**(5.5)**

In light of the time of the execution, the contribution of the acquired business to sales and net income, not including the effects from the “acquisition accounting”, is insignificant. Due to the limited information situation against the backdrop of the separation of the acquired business from a larger legal entity, the potential contribution to sales revenues / net income if the acquisition had taken place at the beginning of the fiscal year cannot be specified. The transaction costs for the acquisition were €0.2 million. These are reported under administrative expenses in the income statement. The acquisition did not include any cash balances.

In addition, a previously insignificant company was included in the scope of consolidation for the first time. As of the end of the fiscal year, 60 companies were fully included in the consolidated financial statements, 17 of which were domiciled in Germany.

Development of fully consolidated companies

	2018	2017
Companies fully consolidated as of January 1	58	62
Disposals	–	(7)
First-time consolidation	1	6
Reclassifications	1	(2)
Intragroup mergers	–	(1)
Companies fully consolidated as of December 31, 2018	**60**	**58**

Ten companies domiciled outside of Germany (previous year: nine) and one company domiciled in Germany (previous year: none) were accounted for using the equity method.

Due to their immateriality with respect to net assets, financial position and results of operations, 16 companies (previous year: 15) in which Vossloh AG directly or indirectly holds a voting majority as of the reporting date or controls by other means 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 economically independent entities, their functional currency corresponds to their local currency. For balance sheet items, the mean exchange rate as of the reporting date is used, while for the translation of items in the income statement, the annual average 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 equity and presented in the line item "Accumulated other comprehensive income."

In the separate financial statements, foreign currency transactions are translated at the rate upon initial recognition. 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 the Vossloh Group transacts major business through consolidated subsidiaries are listed below:

Exchange rates

Country	Currency	€	2018	2017	2018	2017
			Current rate at Dec. 31		Average rate	
Australia	AUD	€ 1	1.62	1.54	1.58	1.47
Brazil	BRL	€ 1	4.44	3.98	4.30	3.61
China	CNY	€ 1	7.84	7.82	7.81	7.62
United Kingdom	GBP	€ 1	0.90	0.89	0.88	0.88
India	INR	€ 1	79.65	76.71	80.74	73.54
Kazakhstan	KZT	€ 1	435.98	399.69	406.97	368.84
Malaysia	MYR	€ 1	4.73	4.86	4.76	4.85
Mexico	MXN	€ 1	22.51	23.55	22.71	21.33
Poland	PLN	€ 1	4.29	4.18	4.26	4.26
Russia	RUB	€ 1	79.80	69.10	74.04	65.94
Sweden	SEK	€ 1	10.16	9.82	10.26	9.64
Serbia	RSD	€ 1	118.30	118.50	118.24	121.36
Turkey	TRY	€ 1	6.07	4.55	5.71	4.12
USA	USD	€ 1	1.14	1.20	1.18	1.13

Notes to the income statement

(1) Sales revenues

Breakdown of sales revenues

€ mill.	2018	2017
Sale of products (performance obligation satisfied at a point in time)		
Fastening Systems	216.9	273.4
Tie Technologies	78.1	79.2
Consolidation	(2.4)	(1.1)
Core Components	292.6	351.5
Customized Modules	482.6	482.8
Lifecycle Solutions	26.1	20.8
Consolidation	(10.2)	(7.5)
Group	**791.1**	**847.6**
Sales revenues from rendering services		
Lifecycle Solutions	64.1	57.0
Group	**64.1**	**57.0**
Sales revenues from customer-specific manufacturing (performance obligation satisfied over time)		
Customized Modules	0.0	0.5
Lifecycle Solutions	9.8	13.2
Group	**9.8**	**13.7**
Sales revenues		
Fastening Systems	216.9	273.4
Tie Technologies	78.1	79.2
Consolidation	(2.4)	(1.1)
Core Components	292.6	351.5
Customized Modules	482.6	483.3
Lifecycle Solutions	100.0	91.0
Consolidation	(10.2)	(7.5)
Group	**865.0**	**918.3**

Sales revenues are recognized net of sales deductions and price allowances such as discounts, bonuses, rebates, and purchases 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 contractually agreed 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 performance obligations of Group companies consist primarily of the delivery of typical products or the performance 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 pages 138 et seq. For individual projects and the performance of services in general, the performance of the owed service and the associated revenue recognition take place over a period of time. In this context, the proportional earnings contribution realized as of the reporting date is also recognized along with the revenue. The degree of processing the contracts is recognized using the percentage-of-completion method (PoC) by comparing the contract costs already incurred with the total expected contract costs. This process establishes the percentage of completion of the contracts 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 not taken into consideration 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 reports starting on pages 100 et seq. and 138 et seq. include breakdowns of external sales revenues by division, business unit and region. A further overview of overall sales revenues by region can also be found in the combined management report on page 42 of this annual report.

(2) Functional expenses

According to the cost-of-sales format of the income statement, 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.	2018	2017
Cost of raw materials and supplies	375.3	392.4
Cost of services purchased	61.6	64.6
Cost of materials	**436.9**	**457.0**
Wages and salaries	167.5	169.6
Social security expenses and employee benefits	41.8	39.8
Pension expenses	5.6	5.4
Personnel expenses	**214.9**	**214.8**
Depreciation/amortization	**35.5**	**33.6**
Expenses on operating leases	**5.7**	**3.0**
Allowances for trade receivables	**0.3**	**2.2**

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

Workforce structure

	2018	2017
Executive Board/management	21	26
Other managers/executives	124	130
Nontariff employees	880	907
Tariff employees	2,770	2,781
Apprentices/trainees	58	63
Interns/working students	24	23
	3,877	**3,930**

In the Locomotives business unit, which has been classified as available for sale, 481 people on average were employed over the year (previous year: 444). The number of employees in accordance with Section 314 (1) No. 4 HGB was 4,237 (previous year: 4,947).

(2.1) Cost of sales

Cost of sales covers the cost of goods and services sold in the period. Besides such direct costs as materials, labor and energy, cost of sales comprises indirect costs, primarily amortization of intangible assets, in addition to depreciation on plant, property and equipment. 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.	2018	2017
Selling expenses	56.1	58.4
General administrative expenses	88.3	89.7
General administrative and selling expenses	**144.4**	**148.1**

In addition to personnel expenses, selling expenses primarily include outbound freight and commissions. This item also includes most of the allowances for devaluations on trade receivables. The expense from allowances for trade receivables recognized in the reporting period as general administrative and selling expenses came to €0.1 million (previous year: €1.5 million).

Administrative expenses cover personnel, material and other administration expenses, including related amortization and depreciation.

(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 item. R&D expenses before capitalized development expenses came to €12.3 million in the past fiscal year (previous year: €11.3 million). Of these costs for development projects, €1.4 million (previous year: €1.0 million) were recognized in the balance sheet.

(3) Other operating result

Breakdown of other operating result

€ mill.	2018	2017
Currency exchange gains	3.1	3.2
Release of allowances and reversal of write-downs	2.0	7.6
Income from government grants	1.6	1.5
Insurance reimbursements	1.6	1.0
Rental income	1.1	1.2
Income from the disposal of intangible assets and property, plant and equipment	0.8	1.1
Income from the disposal of financial instruments	0.0	0.0
Income from the release of provisions	0.0	5.7
Other income	13.1	6.9
Other operating income	**23.3**	**28.2**
Currency exchange losses	(3.6)	(3.8)
Expenses for buildings	(0.4)	(0.4)
Losses on the disposal of intangible assets and property, plant and equipment	(0.3)	(0.2)
Impairment of property, plant and equipment	0.0	(1.3)
Other expenses	(0.6)	(1.0)
Other operating expenses	**(4.9)**	**(6.7)**
Other operating result	**18.4**	**21.5**

Income from government grants is mainly related to R&D projects. Payments received on account of such grants are recognized as deferred income and amortized to other operating income. 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 any contingent liabilities in this regard. Other income includes a negative goodwill of €5.5 million. Impairment losses on property, plant and equipment in the previous year relate to technical equipment and machinery in the Fastening Systems business unit.

As of the end of the reporting period, no grants were recognized as a cost reduction in property, plant and equipment, as in the previous year.

(4.1) Other financial income

Breakdown of other financial income

€ mill.	2018	2017
Income from investments	2.9	0.3
Income from shares in affiliated companies	0.4	1.7
Income from securities	0.1	0.2
Other financial income	**3.4**	**2.2**

(4.2) Other financial expenses

Breakdown of other financial expenses

€ mill.	2018	2017
Write-down of financial instruments	0.0	(0.3)
Other financial expenses	**0.0**	**(0.3)**

(5) Interest expenses

Breakdown of interest expense

€ mill.	2018	2017
Interest from bank liabilities	(5.0)	(7.6)
Guarantee commissions	(0.9)	(0.8)
Other interest expense	(9.0)	(7.6)
Interest expenses	**(14.9)**	**(16.0)**

(6) Income taxes

Breakdown of income taxes

€ mill.	2018	2017
Current income taxes	13.6	21.3
Deferred taxes	2.4	0.4
Income taxes	**16.0**	**21.7**

Of the current income taxes, €(1.3) million (previous year: €(1.7) million) related to previous years. In the case of deferred taxes, this applied to €(0.7) million (previous year: €0.3 million). Totaling €3.6 million (previous year: €4.9 million) of deferred tax income resulted from the reversal of temporary differences. Remeasurements of temporary differences resulted in deferred tax expenses of €0.1 million (previous year: €1.1 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. We expect an average tax rate of 31.88 percent for Vossloh AG as the parent company (previous year: 31.98 percent).

The Vossloh Group's actual tax expense of €16.0 million (previous year: €21.7 million) was €3.0 million (previous year: €3.2 million) above the anticipated 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

		2018	2017
Earnings before taxes	€ mill.	40.8	57.8
Income tax rate including trade taxes	%	31.88	31.98
Expected tax expense when applying a uniform tax rate	€ mill.	13.0	18.5
Tax reduction due to divergent foreign income tax rates	€ mill.	(1.7)	(3.5)
Tax reduction due to tax-exempt income	€ mill.	(4.0)	(1.1)
Tax increase due to nondeductible expenses	€ mill.	3.6	3.0
Taxes for previous years	€ mill.	(2.1)	(1.4)
Tax effect of write-ups/write-downs of deferred tax assets	€ mill.	6.6	3.9
Double-taxation effects	€ mill.	0.0	0.7
Effects from the remeasurement of deferred taxes	€ mill.	0.1	1.1
Effects from the measurement of investments in companies accounted for using the equity method	€ mill.	0.5	0.1
Other differences	€ mill.	0.0	0.4
Recognized income tax expense	€ mill.	16.0	21.7
Effective income tax rate	%	39.2	37.6

Deferred taxes from items, which increased other comprehensive income, amounted to €0.2 million (decrease in previous year: €0.4 million). Those deferred taxes arose from the remeasurement of defined benefit plans in the amount of €0.2 million (previous year: €(0.2) million) to be accounted for in the fiscal year in addition to changes in the measurement of hedging instruments on cash flow hedges amounting to €0.0 million (previous year: €(0.2) million). Temporary differences of €307.8 million resulted from the valuation of investments in the respective parent companies and the net assets in the consolidated balance sheet. The resulting deferred taxes to be recognized would theoretically amount to €5.3 million. Since the conditions for recognition were not fulfilled, these were not recognized.

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

The result from discontinued operations during the reporting year primarily concerned the Locomotives business unit, which is reported as "discontinued operations" in accordance with IFRS 5. The Executive Board expects a sale of the business unit within the next twelve months. The result reported in the income statement comprises all income and expenses resulting from current business of Vossloh Locomotives and the associated tax expense in addition to all expenses incurred as a result of the measurement of assets and liabilities at fair value less expected costs to sell. In addition, provisions in connection with earlier sales from sub-units of the former Transportation division have been released. The assets and liabilities of the Locomotive business unit held for sale are each reported separately in the balance sheet. The following table shows the material items:

Assets and liabilities held for sale

€ mill.	12/31/2018	12/31/2017
Intangible assets (excl. goodwill)	0.0	0.0
Goodwill	0.0	0.0
Property, plant and equipment	0.0	0.0
Other noncurrent assets	0.7	1.0
Noncurrent assets	**0.7**	**1.0**
Inventories	69.6	103.5
Trade receivables	9.7	21.9
Contract assets	19.8	8.2
Other current assets	2.5	1.5
Cash and cash equivalents	2.2	1.8
Current assets	**103.8**	**136.9**
Assets	**104.5**	**137.9**
Provisions	19.0	14.3
Trade payables	20.3	28.0
Contract liabilities	0.0	0.3
Other liabilities	31.3	44.4
Liabilities	**70.6**	**87.0**

Composition of the result from discontinued operations

€ mill.	2018	2017
Income	200.9	109.1
Expenses	(215.3)	(123.0)
Result from operating activities, before taxes	**(14.4)**	**(13.9)**
Income taxes	0.1	0.7
Result from operating activities, after taxes	**(14.3)**	**(13.2)**
Impairment loss on goodwill	0.0	(2.4)
Impairment loss on other noncurrent assets	(2.7)	(23.6)
Subsequent effects from former business units	14.9	3.2
Result from discontinued operations	**(2.1)**	**(35.8)**
thereof attributable to shareholders of Vossloh AG	(2.1)	(35.8)
thereof attributable to noncontrolling interests	0.0	0.0

In the statement of comprehensive income, €0.0 million (previous year: €0.1 million) of changes in the market value of hedging instruments (cash flow hedges) and related income taxes of €0.0 million (previous year: €0.0 million) are assigned to discontinued operations. In addition, €0.0 million (previous year: €(0.8) million) relates to currency translation differences from discontinued operations and €0.0 million (previous year: €0.1 million) results from the revaluation of defined benefit plans and related income taxes of €0.0 million (previous year: €0.0 million) from discontinued operations.

(8) Noncontrolling interests

The share of the Group's total net income attributable to noncontrolling interests includes shares in profit of €4.6 million (previous year: €8.9 million) and shares in losses of €0.1 million (previous year: €0.6 million).

(9) Earnings per share

		2018	2017
Weighted average of shares outstanding	Number	15,967,437	15,967,437
Net income attributable to Vossloh AG shareholders	€ mill.	**18.2**	**(8.0)**
Basic/diluted earnings per share	€	**1.14**	**(0.50)**
thereof attributable to continuing operations	€	1.27	1.74
thereof attributable to discontinued operations	€	(0.13)	(2.24)

Notes to the cash flow statement

The cash flow statement shows the changes in cash and cash equivalents within the Vossloh Group. Cash pertains to cash on hand and in the bank. Cash equivalents comprise any financial instruments with a maximum term of three months that can be readily converted into cash.

The cash flow statement is prepared in conformity with IAS 7 and breaks down changes in cash and cash equivalents into the cash flows from, and outflows for, 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. The cash outflow for the acquisition of consolidated subsidiaries and other units included inflowing cash and cash equivalents of €2.0 million (previous year: €0.4 million) netted against cash outflows for consideration transferred of €44.9 million (previous year: €121.5 million). Proceeds from the sale of consolidated subsidiaries in the previous year comprised the balance of the cash purchase price of €72.5 million and cash outflows of €30.1 million. The net financing from short-term loans includes the repayment of the Schuldschein loan of €50.0 million, the utilization of the credit line from the syndicated loan at €56.2 million and the raising of a short-term loan for €25.0 million from Bayerische Landesbank. Net financing from medium-term and long-term loans includes the funds used to modernize the production plant in Outreau. For more information, see our notes on the financial liabilities under 26.1.

The figures in the cash flow statement shown on page 97 relate to the entire Group including effects of discontinued operations. The table below divides the subtotals of the cash flow statement and opening and closing cash and cash equivalents into continuing and discontinued operations.

€ mill.	2018		2017	
Cash flow items	Thereof from continuing operations	Thereof from discontinued operations	Thereof from continuing operations	Thereof from discontinued operations
Gross cash flow	87.3	3.0	106.3	(10.0)
Cash flow from operating activities	36.2	1.4	62.4	(37.9)
Free cash flow	(17.3)	(1.7)	23.3	(45.6)
Cash flow from investing activities	(92.1)	(2.9)	(116.6)	(7.6)
Cash flow from financing activities	9.0	1.9	(62.0)	82.7
Opening cash and cash equivalents	96.3	1.8	170.0	8.6
Closing cash and cash equivalents	48.7	2.3	96.3	1.8

The following table clarifies the distribution of the changes in financial liabilities, as well as in derivatives from hedging relationships included in the cash flow from financing activities, between cash and noncash items:

€ mill.	Noncurrent and medium-term credit liabilities	Current credit liabilities	Liabilities from leases	Derivatives in hedging relationships	Total
As of 12/31/16	**246.9**	**8.7**	**0.0**	**3.3**	**258.9**
Payments for the period	51.8	(5.5)	0.0	(6.4)	39.9
Noncash changes					
Business acquisitions	0.0	1.3	0.0	0.0	1.3
New lease agreements	0.0	0.0	0.0	0.0	0.0
Changes in fair value	0.0	0.0	0.0	0.0	0.0
Currency translation differences	0.0	1.3	0.0	0.0	1.3
Other	(49.9)	49.9	0.0	0.0	0.0
As of 12/31/2017	**248.8**	**55.7**	**0.0**	**(3.1)**	**301.4**
Payments for the period	14.7	32.1	(0.2)	0.0	46.6
Noncash changes					
Business acquisitions	0.0	0.0	0.0	0.0	0.0
New lease agreements	0.0	0.0	5.2	0.0	5.2
Changes in fair value	0.2	0.4	0.0	11.2	11.8
Currency translation differences	0.0	(0.4)	0.0	0.0	(0.4)
Other	0.0	0.0	0.0	0.0	0.0
As of 12/31/2018	**263.7**	**87.8**	**5.0**	**8.1**	**364.6**

The increase in cash changes in 2018 in the area of current loans is the result of higher utilization of the syndicated loan.

The cash changes in the area of medium-term and long-term loans of €51.8 million reported in the previous year include the proceeds from the issue of the Schuldschein loan in the amount of €250 million in July 2017.

Notes to the balance sheet

The balance sheet is broken down into noncurrent and current assets and liabilities. Assets and liabilities maturing or due within one year are deemed current. Irrespective of their maturity, trade receivables/payables are always considered current even if due after one year but within one normal business cycle. Deferred taxes are recognized as noncurrent assets or liabilities.

(10) Intangible assets

Breakdown of intangible assets

€ mill.	2018	2017
Goodwill	265.4	251.2
Development costs	7.3	6.3
Concessions, licenses, property rights	28.3	22.8
Advance payments	0.3	0.1
	301.3	**280.4**

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 (impairment test). In this connection, the higher amount from value in use or fair value less costs to sell is compared to the respective carrying amount of a cash-generating unit (CGU). For the CGUs in question, the value in use is always the higher value. As in the previous year, there are four different CGUs in the Vossloh Group to which goodwill is allocated. 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, a pre-tax discount rate specific to the CGU is applied. When determining the respective discount rate, weighted specific country risks, inflation effects and tax rates were considered, whereby the weightings from the country risks as well as the inflation effects from the regional distribution of sales were derived from both the past fiscal year and over the budget periods, while the tax rates were determined on the basis of the relative earnings contributions of the companies within the CGUs. 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 CGUs is based on the planned projects and projects which are already included in the order backlog to various extents. Average annual sales growth in the CGUs, 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 was set at 50 percent of the CGU-specific inflation rate resulting from the discount factor calculation described above.

For periods beyond this planning horizon, the cash flows are projected forward by assuming a CGU-specific annual growth rate to determine the value in use. A financing of inventories, trade receivables and payables, and property, plant and equipment associated with this growth was also included in the cash flow. As the CGUs' values in use (including assigned goodwill) exceed their carrying amounts, no goodwill impairment loss had to be recognized. Within the scope of the generally conducted sensitivity analyses, various scenarios were examined: an increase in the discount rates by 50 basis points, a separate derivation of the WACC just for the terminal value and a general reduction in cash flows by 7.5 percent. There was also no need for impairment in these scenarios.

Goodwill breakdown by reporting segment

€ mill.	2018				2017
	Discount rate (in %)	Growth rate of the perpetual annuity (in %)	Average sales growth p. a. (in %)	Carrying amount	Carrying amount
Vossloh Switch Systems	11.4	1.2	3.1	155.7	155.1
Vossloh Rail Services	9.1	1.0	15.7	56.8	56.8
Vossloh Tie Technologies	10.9	1.2	24.3	54.6	41.0
Vossloh Fastening Systems	15.0	1.9	10.0	1.2	1.2
				268.3	**254.1**

In the goodwill of the CGU Vossloh Switch Systems, €2.9 million of calculated noncontrolling interests are included for purposes of the impairment test, as in the previous year.

Development costs are capitalized at cost of sales wherever such costs can clearly be assigned, the developed product's technical feasibility and future marketability are ensured, and the development work is reasonably certain to produce future cash inflows.

The cost of sales includes all costs directly or indirectly assignable to the development process. Capitalized development costs are amortized on a straight-line basis over useful lives of one to ten years.

Concessions, licenses and property rights are for the most part amortized on a straight-line basis over a period of one to twenty years.

The amortization of intangible assets in the amount of €2.7 million (previous year: €2.7 million) is included in the income statement under cost of sales, €1.7 million (previous year: €1.5 million) under general administrative and selling expenses and €0.9 million (previous year: €0.8 million) under research and development costs.

No impairment losses have been recognized in either the reporting period or the prior year.

Changes in intangible assets

€ mill.	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
	Goodwill		Development costs		Concessions, licenses and property rights		Advance payments		Intangible assets	
Net carrying amount as of December 31	**265.4**	**251.2**	**7.3**	**6.3**	**28.3**	**22.8**	**0.3**	**0.1**	**301.3**	**280.4**
Cost										
Balance as of January 1	**311.4**	**286.9**	**9.4**	**10.9**	**55.0**	**44.0**	**0.1**	**0.2**	**375.9**	**342.0**
Changes from first-time consolidation / business acquisitions	11.6	41.0	0.0	0.0	8.1	11.2	0.0	0.0	19.7	52.2
Changes from transitional consolidation and deconsolidation	0.0	(12.4)	0.0	(2.7)	0.0	(0.4)	0.0	0.0	0.0	(15.5)
Additions/ongoing investments	0.0	0.0	1.9	1.4	1.1	1.7	0.3	0.0	3.3	3.1
Disposals	0.0	0.0	0.0	0.0	(0.2)	(0.2)	0.0	0.0	(0.2)	(0.2)
Transfers	0.0	0.0	0.0	0.0	0.0	0.1	0.0	(0.1)	0.0	0.0
Currency translation differences	2.6	(4.1)	0.0	(0.2)	1.2	(1.4)	(0.1)	0.0	3.7	(5.7)
Balance as of December 31	**325.6**	**311.4**	**11.3**	**9.4**	**65.2**	**55.0**	**0.3**	**0.1**	**402.4**	**375.9**
Accumulated amortization and impairment losses										
Balance as of January 1	**60.2**	**60.2**	**3.1**	**5.1**	**32.2**	**29.3**	**0.0**	**0.0**	**95.5**	**94.6**
Changes from transitional consolidation and deconsolidation	0.0	0.0	0.0	(2.7)	0.0	(0.4)	0.0	0.0	0.0	(3.1)
Amortization of the fiscal year	0.0	0.0	0.9	0.8	4.4	4.2	0.0	0.0	5.3	5.0
Disposals	0.0	0.0	0.0	0.0	(0.1)	(0.2)	0.0	0.0	(0.1)	(0.2)
Transfers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency translation differences	0.0	0.0	0.0	(0.1)	0.4	(0.7)	0.0	0.0	0.4	(0.8)
Balance as of December 31	**60.2**	**60.2**	**4.0**	**3.1**	**36.9**	**32.2**	**0.0**	**0.0**	**101.1**	**95.5**

(11) Property, plant and equipment

Breakdown of property, plant and equipment

€ mill.	2018	2017
Land, leasehold rights and buildings including buildings on nonowned land	90.2	73.2
Technical equipment and machinery	129.8	94.6
Other equipment, factory and office equipment	16.9	16.3
Advance payments and construction in process	31.7	28.4
	268.6	**212.5**

Property, plant and equipment is capitalized at cost and depreciated on a straight-line basis over the expected useful lives. In addition to the purchase price, acquisition costs include incidental 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. During the year under review, €0.1 million (previous year: €0.0 million) was recognized.

Development of property, plant and equipment

€ mill.	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
	Land, leasehold rights and buildings including buildings on nonowned land		Technical equipment and machinery		Other equipment, factory and office equipment		Advance payments and construction in process		Property, plant and equipment	
Net carrying amount as of December 31	**90.2**	**73.2**	**129.8**	**94.6**	**16.9**	**16.3**	**31.7**	**28.4**	**268.6**	**212.5**
Cost										
Balance as of January 1	**121.1**	**93.8**	**288.6**	**275.9**	**46.2**	**41.3**	**28.4**	**21.0**	**484.3**	**432.0**
Changes from first-time consolidation / business acquisitions	1.9	25.0	27.0	20.4	0.0	5.0	0.8	1.0	29.7	51.4
Changes from transitional consolidation and deconsolidation	0.0	(1.8)	0.0	(5.3)	0.0	(1.8)	0.0	0.0	0.0	(8.9)
Additions/ongoing investments	14.7	5.4	19.2	6.1	5.7	3.8	16.7	15.0	56.3	30.3
Disposals	(0.5)	(1.0)	(2.2)	(7.7)	(1.7)	(1.3)	(0.9)	(0.5)	(5.3)	(10.5)
Transfers	5.0	1.7	7.3	5.7	1.2	0.6	(13.5)	(8.0)	0.0	0.0
Currency translation differences	1.9	(2.0)	0.7	(6.5)	0.2	(1.4)	0.2	(0.1)	3.0	(10.0)
Balance as of December 31	**144.1**	**121.1**	**340.6**	**288.6**	**51.6**	**46.2**	**31.7**	**28.4**	**568.0**	**484.3**
Accumulated depreciation and impairment losses										
Balance as of January 1	**47.9**	**43.2**	**194.0**	**186.4**	**29.9**	**27.6**	**0.0**	**0.0**	**271.8**	**257.2**
Changes from transitional consolidation and deconsolidation	0.0	(0.8)	0.0	(3.9)	0.0	(1.2)	0.0	0.0	0.0	(5.9)
Depreciation and impairment of the fiscal year	6.4	7.1	18.1	21.0	5.7	5.6	0.0	0.0	30.2	33.7
Disposals	(0.4)	(0.9)	(1.3)	(5.0)	(0.9)	(1.2)	0.0	0.0	(2.6)	(7.1)
Transfers	0.0	0.1	0.0	(0.2)	0.0	0.1	0.0	0.0	0.0	0.0
Currency translation differences	0.0	(0.8)	0.0	(4.3)	0.0	(1.0)	0.0	0.0	0.0	(6.1)
Balance as of December 31	**53.9**	**47.9**	**210.8**	**194.0**	**34.7**	**29.9**	**0.0**	**0.0**	**299.4**	**271.8**

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 equipment, factory and office equipment	2 to 30 years

Where the carrying amount of property, plant and equipment is determined to be impaired, appropriate write-downs are made. No impairment losses were recognized during the reporting year (previous year: €1.3 million). Depreciation of property, plant and equipment is included in the income statement in the amount of €26.6 million (previous year: €28.5 million) under cost of sales, €3.4 million (previous year: €4.2 million) under general administrative and selling expenses and €0.2 million (previous year: 0.2 million) under research and development costs. The impairment losses in the previous year relate to technical equipment and machinery in the Fastening Systems business unit in which the previous carrying amount had to be adjusted due to current business forecasts. The recoverable amount of assets impaired in the previous year was €3.4 million.

(12) Investment properties

Development of investment property

€ mill.	2018	2017
Net carrying amounts	**2.2**	**2.8**
Cost		
Balance as of January 1	5.7	7.9
Additions	0.0	0.0
Disposals	0.0	(1.9)
Transfers	(0.6)	0.0
Currency translation differences	0.0	(0.3)
Balance as of December 31	**5.1**	**5.7**
Accumulated amortization and impairment losses		
Balance as of January 1	2.9	4.3
Amortization of the fiscal year	0.2	0.2
Disposals	0.0	(1.5)
Transfers	(0.2)	0.0
Currency translation differences	0.0	(0.1)
Balance as of December 31	**2.9**	**2.9**

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

In the previous year, a property with a carrying amount of €0.4 million was sold. The resulting gain on disposal was insignificant. Rental income in the reporting year amounted to €1.0 million (previous year: €1.1 million). Expenses (including depreciation, maintenance and repairs and incidentals) incurred for properties leased out totaled €0.4 million (previous year: €0.4 million); as in the previous year, there were no nonleased properties. As in the previous year, expenses for leased properties include no amounts for write-downs. The fair value of buildings owned for investment purposes, including existing buildings, totals €6.9 million (previous year: €5.9 million). The fair values are primarily based on the current market prices of comparable properties. An assessment performed by an accredited expert did not take place.

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

Information on investments in companies accounted for using the equity method

€ mill.	2018	2017
Result from continuing operations	1.4	0.2
Result from discontinued operations	(0.2)	0.0
Income and expenses recognized directly in equity	(0.1)	(1.1)
Total comprehensive income	**1.1**	**(0.9)**

Significant financial information on Wuhu China Railway Cogifer Track Co. Ltd., Wuhu, China, which is accounted for using the equity method

€ mill.	2018	2017
Noncurrent assets	17.1	18.9
Current assets	22.6	15.5
thereof cash and cash equivalents	4.9	0.8
Noncurrent liabilities	0.0	0.0
thereof noncurrent financial liabilities	0.0	0.0
Current liabilities	22.9	18.2
thereof current financial liabilities	8.9	8.3
Sales revenues	17.3	13.3
Result from continuing operations	0.5	(0.1)
Depreciation/amortization	1.8	1.9
Interest income	0.0	0.0
Interest expenses	0.5	0.6
Tax expense	0.0	0.0
Total comprehensive income	**0.5**	**(1.2)**

Significant financial information on Vossloh Beekay Castings Ltd., Bhilai, New Delhi, India, which is accounted for using the equity method

€ mill.	2018	2017
Noncurrent assets	2.1	2.4
Current assets	7.8	6.8
thereof cash and cash equivalents	0.5	0.3
Noncurrent liabilities	0.1	0.2
thereof noncurrent financial liabilities	0.0	0.0
Current liabilities	2.9	2.4
thereof current financial liabilities	0.0	0.0
Sales revenues	10.3	8.2
Result from continuing operations	0.8	0.2
Depreciation/amortization	0.4	0.4
Interest income	0.0	0.0
Interest expenses	0.0	0.0
Tax expense	0.3	0.2
Total comprehensive income	**0.6**	**(0.3)**

Significant financial information on Futrifer-Indústrias Ferroviárias, SA, Lisbon, Portugal, which is accounted for using the equity method

€ mill.	2018	2017
Noncurrent assets	0.2	0.2
Current assets	3.9	3.1
thereof cash and cash equivalents	1.4	1.0
Noncurrent liabilities	0.0	0.0
thereof noncurrent financial liabilities	0.0	0.0
Current liabilities	2.1	1.1
thereof current financial liabilities	0.0	0.0
Sales revenues	5.6	4.1
Result from continuing operations	0.1	0.1
Depreciation/amortization	0.1	0.1
Interest income	0.0	0.0
Interest expenses	0.0	0.0
Tax expense	0.0	0.0
Total comprehensive income	**0.1**	**0.1**

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. This pertains to shares in ten foreign companies (previous year: nine) and one domestic company (previous year: zero) upon which significant influence is exercised. During the previous year, the division of control between Vossloh and the other shareholders changed in the case of two foreign companies to such an extent that the companies were no longer fully consolidated but included using the equity method as part of a transitional consolidation.

(14) Other noncurrent financial instruments

Breakdown of other noncurrent financial instruments

€ mill.	2018	2017
Shares in unconsolidated affiliated companies	2.9	3.1
Other investments	3.3	3.2
Loans	1.4	2.5
Securities	0.1	0.1
Derivative financial instruments in hedging relationships	0.0	0.0
Other noncurrent financial assets	0.0	0.0
	7.7	**8.9**

Shares in unconsolidated affiliated companies for which the criterion of control has been fulfilled but which are not included due to insignificance are recognized at cost. Other investments are similarly insignificant for obtaining a view of the net assets and results of operations of the Group, and are thus recognized at amortized cost. There is currently no plan to sell shares.

Loans not quoted in an active market as well as other noncurrent financial assets are initially measured at fair value (which generally equals the nominal amount of the receivable or the loan amount) on the basis of the business model followed for such financial instruments (payment flows arise exclusively from interest payments or the repayment amount upon maturity). Non- and low-interest-bearing long-term loans and receivables are discounted. 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 which can also be sold are recognized at fair value. Any fair value changes upon remeasurement are recognized directly in equity 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 balance sheet line with the IFRS 9 valuation categories, see pages 140 et seq., “Additional information on financial instruments.”

(15) Other noncurrent assets

Prepaid expenses are primarily recognized under other noncurrent assets.

(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 carryforwards, as well as for consolidation transactions recognized in the income statement. Deferred taxes are determined at the rates enacted at the reporting date that will apply at the expected time of realization.

Deferred taxes due to temporary differences were allocable to the following balance sheet items:

Deferred taxes

€ mill.	2018		2017	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets and property, plant and equipment	2.8	25.2	2.2	19.2
Inventories	4.7	0.0	4.3	0.0
Receivables	1.4	2.0	1.3	4.4
Other assets	0.0	0.0	0.0	0.0
Pension provisions	6.8	0.0	6.9	0.0
Other provisions	2.9	0.0	3.0	0.0
Liabilities	0.9	0.7	0.8	0.7
Other liabilities	3.1	4.6	4.0	2.1
Loss carryforwards	16.2	–	14.8	–
Total	**38.8**	**32.5**	**37.3**	**26.4**
Netting	(25.4)	(25.4)	(13.6)	(13.6)
Deferred taxes according to the balance sheet	**13.4**	**7.1**	**23.7**	**12.8**

Taking into account the new deferred taxes resulting from the business acquisitions, 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, 2018, tax loss carryforwards of €269.4 million (previous year: €235.5 million) existed in Germany for corporate income tax purposes and of €261.8 million for trade tax purposes (previous year: €230.3 million). No deferred taxes were recognized for corporate income tax losses of €255.6 million €216.1 million), and no deferred taxes were recognized for trade tax losses of €247.5 million (previous year: €210.7 million). In order to determine the deferred taxes on loss carryforwards which are eligible for capitalization, the period of detailed planning, which normally covers three years, has been extended by two years as in previous periods and specifically taken into account in anticipated taxable income.

In addition, non-German companies reported tax loss carryforwards of €52.2 million (previous year: €41.7 million), of which €52.2 million (previous year: €26.2 million) was incorporated. Allowances were recorded in the year under review against deferred tax assets in the amount of €10.3 million (previous year: €5.7 million). At the same time, deferred tax assets that had previously been impaired of €3.7 million (previous year: €1.7 million) were released. 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 €9.1 million (previous year: €7.6 million) expire after more than five years.

(17) Inventories

Breakdown of inventories

€ mill.	2018	2017
Raw materials and supplies	102.4	87.7
Work in process	37.8	35.2
Merchandise	10.5	10.7
Finished products	22.6	19.8
Advance payments	1.5	0.9
Total	**174.8**	**154.3**

Inventories are stated at the lower of cost or net realizable value (NRV). Cost of sales comprises all production costs including directly attributable 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 appropriately allowed for. Allowances on inventories amounted to €27.0 million as of the balance sheet date (previous year: €32.6 million), which primarily resulted from excessive inventories. €(2.1) million of this was recognized in profit or loss in the year under review (previous year: €(0.6) million). The carrying amount of inventories stated at net realizable value totaled €12.2 million (previous year: €48.4 million).

As the reasons for previous write-downs no longer existed, inventories were written up in 2018 by €0.2 million (previous year: €0.9 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. As of every reporting date, risk provisioning is carried out on the basis of the entire term by means of a provision matrix based on the actual receivables defaults per division. Prior experiences were then supplemented with future-oriented information such as macroeconomic circumstances and expectations for the divisions. Depending on the age of the trade receivables, valuation allowances are recognized at a loss rate based on the number of days of arrears. The provision matrix is presented in table format below.

€ mill.				%
Risk class	**Gross carrying amounts**	**Net carrying amounts (after consideration of individual risks; not including refundable VAT)**	**Valuation allowance**	**Average Vossloh Group loss rate**
Assets not due	149.2	121.6	0.1	0.12
Overdue by 1 to 30 days	26.6	23.8	0.1	0.28
Overdue by 31 to 90 days	15.7	14.0	0.1	0.54
Overdue by 91 to 180 days	11.8	10.5	0.1	0.84
Overdue by 181 to 360 days	12.4	11.1	0.2	2.03
Overdue by more than 360 days	2.7	2.4	0.3	11.54
Individual valuation allowance	6.9	4.2	0.3	7.57
	225.3	**187.6**	**1.2**	

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 (end of insolvency proceedings).

The balance and changes in the allowances for trade receivables are presented below:

Changes in the allowances (including consideration of individual risks) for trade receivables

€ mill.	2018	2017
Balance as of January 1	**13.4**	**14.7**
Adjustment by conversion in accordance with IFRS 9	0.9	–
Additions	2.9	2.4
Releases	(4.4)	(1.6)
Utilizations	(0.1)	(1.7)
Currency translation differences	0.0	(0.4)
Balance as of December 31	**12.7**	**13.4**

Contract assets result from the recognition of customer contracts for which revenue is realized over the course of the fulfillment of the service obligation. In applying this method, any contract costs incurred, including a percentage of profit equivalent to the percentage of completion less any losses, are recognized as a contract asset. Where total progress under construction contracts exceeds the total of all advance payments received from customers, 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 ordinarily only take place to a limited extend, with the result that the orders relevant in this context typically result in a positive credit balance during the period of fulfillment of performance obligations.

Contract assets and liabilities

€ mill.	2018		2017	
	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Contract costs	17.5	0.0	13.7	0.0
Proportional profit	0.7	0.0	3.1	0.0
Proportional losses	(3.7)	0.0	(0.4)	0.0
Total progress under construction contracts	14.5	0.0	16.4	0.0
Advance payments received	(0.6)	0.0	(5.1)	0.0
Partial billings	(7.0)	0.0	(4.7)	0.0
Balance sheet presentation	**6.9**	**0.0**	**6.6**	**0.0**

(19) Income tax assets

These include €0.2 million of income taxes (previous year: €0.3 million) reimbursable to companies of the Fastening Systems business unit, €6.2 million (previous year: €7.1 million) to Vossloh Switch Systems, €0.6 million (previous year: €0.3 million) to the companies of the Rail Services business unit, €0.1 million (previous year: €0.0 million) to the Tie Technologies business unit and €0.5 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.	2018	2017
Receivables from reimbursements	6.1	6.9
Receivables from investees	6.0	4.5
Receivables from affiliated companies	4.3	1.8
Subsequent purchase price adjustment	3.9	0.0
Loans and other financial receivables	3.5	10.5
Security and similar deposits	1.9	2.6
Creditors with debit accounts	1.1	0.2
Derivative financial instruments	0.7	3.4
Receivables from employees	0.4	0.3
Interest receivables	0.0	0.0
Other current financial instruments	**27.9**	**30.2**
Other tax receivables (excluding income taxes)	6.7	6.1
Deferred income	3.3	2.9
Sundry current assets	8.2	4.0
Other current assets	**18.2**	**13.0**

The receivables shown under other current financial instruments are recognized at cost or, where appropriate, at amortized cost. Specific risks are taken into account by appropriate allowances. The receivables from reimbursements are not reimbursements made by shareholders. Other financial receivables primarily result from retained amounts in connection with factoring contracts in the Switch Systems business unit.
A financial asset from a previous sale of a business unit was reported for the first time at €3.9 million.

The balances and changes in allowances are presented below:

Changes in allowances

€ mill.	2018	2017
Balance as of January 1	**0.6**	**0.1**
Additions	0.5	0.5
Releases	0.0	0.0
Utilizations	0.0	0.0
Currency translation differences	0.0	0.0
Balance as of December 31	**1.1**	**0.6**

For the reconciliation of other current financial instruments to the IFRS 9 valuation categories, see “First-time application of standards and interpretations” on page 104 et seq. 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 short-term securities to the IFRS 9 valuation categories, see page 104 et seq, “First-time application of standards and interpretations.”

(22) Cash and cash equivalents

Cash comprises cash on hand and in the bank. Cash equivalents comprise any financial instruments with an initial term of up to three months and readily convertible 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 99. Some of the primary objectives of financial management are the sustainable increase of enterprise value through positive value added, the safeguarding of liquidity and an adequate equity ratio for the Vossloh Group. The optimization of the capital structure contributes as much to this as does efficient management of cash inflows and outflows from financing activities and effective risk management.

(23.1) Capital stock

Vossloh AG's capital stock of €45,325,167.47, which is unchanged from the previous year, is divided into 15,967,437 (previous year: 15,967,437) no-par-value shares. 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. There are also differences recorded in additional paid-in capital that arose based on the purchase and sale prices for treasury shares.

Employee bonus program 2018

The employee bonus program 2018 (on terms unchanged from the previous year) offered employees of German Vossloh companies the option of acquiring either two Vossloh AG shares at no cost or eight shares at a discount of 50 percent of the issue price of €40.10 per share (previous year: €50.38), determined as the market price as of the share transfer date. Under this program, employees of the Vossloh Group, including employees of the business unit held for sale, were granted a total of 2,286 shares at no cost from both implementation options in the reporting year (previous year: 2,338 shares). The expense to the Group for granting shares was €102.5 thousand (previous year: €133.5 thousand) and was determined on the basis of the price of €44.85 per share on the final day of the participation period. The shares issued are each subject to a three-year holding period. The shares issued are acquired via the capital market; there are no other obligations from the program.

The retained earnings contain the prior-year earnings of the companies included in the consolidated financial statements, which have not been distributed from the Group point of view.

(23.3) Retained earnings and net income

Cumulative other comprehensive income in reserves after taxes

€ mill.	Reserve from currency translation	Reserve from hedging transactions (cash flow hedges)	Reserve from the remeasurement of defined benefit plans	Other comprehensive income not including noncontrolling interests	Noncontrolling interests	Other comprehensive income
			2018			
Reclassification of actuarial gains and losses from defined benefit plans to retained earnings			(0.3)	**(0.3)**		**(0.3)**
Foreign subsidiaries – Currency translation differences –	(2.2)			**(2.2)**	(0.2)	**(2.4)**
Cash flow hedges		0.1		**0.1**		**0.1**
Actuarial gains and losses from defined benefit plans			0.5	**0.5**		**0.5**
Total	**(2.2)**	**0.1**	**0.2**	**(1.9)**	**(0.2)**	**(2.1)**
€ mill.			2017			
Reclassification of actuarial gains and losses from defined benefit plans to retained earnings			2.5	**2.5**		**2.5**
Foreign subsidiaries – Currency translation differences –	(4.7)			**(4.7)**	(0.9)	**(5.6)**
Cash flow hedges		0.4		**0.4**		**0.4**
Actuarial gains and losses from defined benefit plans			0.3	**0.3**	0.0	**0.3**
Deconsolidation and transfer effects	(2.1)	(0.3)		**(2.4)**	(3.6)	**(6.0)**
Total	**(6.8)**	**0.1**	**2.8**	**(3.9)**	**(4.5)**	**(8.4)**

Accumulated other comprehensive income contains the changes in equity without profit or loss effect from the translation of financial statements of foreign subsidiaries, from the measurement of derivatives in connection with hedging transactions (cash flow hedges), and of available-for-sale financial instruments as well as actuarial gains and losses relating to employee benefits recognized during the reporting year. In the reporting year, an expense of €0.3 million was reclassified from the reserve for revaluation of defined benefit plans to retained earnings.

(23.4) Accumulated other comprehensive income

€10.4 million (previous year: €14.9 million) of noncontrolling interests relate to minority shareholders of the Fastening Systems business unit; another €2.0 million (previous year: €1.6 million) relates to the Switch Systems business unit.

(23.5) Noncontrolling interests

(24) Pension provisions

Changes in pension provisions

€ mill.	Present value of the obligations	Fair value of plan assets	Total
As of 1/1/2017	**33.5**	**(10.9)**	**22.6**
Service cost	0.7		0.7
Net interest expense/(income)	0.5	(0.1)	0.4
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		(0.2)	(0.2)
Gains/losses on changes in demographic assumptions	(0.2)		(0.2)
Gains/losses on changes in financial assumptions	0.0		0.0
Benefits paid	(1.5)	0.6	(0.9)
Other/currency translation differences	0.0	0.0	0.0
Balance as of 12/31/2017	**33.0**	**(10.6)**	**22.4**
Service cost	0.5		0.5
Net interest expense/(income)	0.7	(0.3)	0.4
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		(0.2)	(0.2)
Gains/losses on changes in demographic assumptions	(0.7)		(0.7)
Experience-related assumptions	0.8		0.8
Contributions			
from beneficiaries		0.0	0.0
from the employer		0.0	0.0
Benefits paid	(1.6)	0.5	(1.1)
Transfer of obligations	0.0		0.0
Other/currency translation differences	0.0		0.0
Balance as of 12/31/2018	**32.7**	**(10.6)**	**22.1**

Vossloh AG and some subsidiaries have entered into pension obligations to former or 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).

In accordance with IAS 19, the projected unit credit method has been used to determine pension obligations, taking into account current market interest rates and anticipating future pay and pension increases, as well as fluctuation rates. Accounting risks of the defined benefit plans particularly arise from the development of the current market interest rates, as the current low interest rate leads to comparably high present values of liabilities.

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 provision is derived as follows:

Derivation of recognized pension provisions

€ mill.	2018	2017
Present value of pension commitments covered by plan assets	15.6	15.8
Fair value of plan assets	(10.6)	(10.6)
Provision for commitments covered by plan assets	**5.0**	**5.2**
Present value of financial commitments not covered by plan assets	17.1	17.2
Provision for commitments not covered by plan assets	**17.1**	**17.2**
Recognized provision	**22.1**	**22.4**

The current service cost represents a portion of the personnel expense that is included in the functional costs. Interest expense is shown in other interest expense. The actual return on plan assets amounted to 3.6 percent in the reporting period (previous year: 3.5 percent).

A discount rate of 1.75 percent was used in the year under review, as in the previous year. 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 €1.2 million (previous year: €1.2 million) or decreased the provision by €1.1 million (previous year: €1.2 million). The average duration of the defined benefit pension plans is 14.6 years (previous year: 14.3 years).

In addition, voluntary or statutory defined contribution plans are in place at a number of Group companies. These Group companies are under no obligation to make any pensions-related payments other than their contractual contributions to an outside fund, which totaled €7.9 million in the fiscal year (previous year: €7.3 million).

(25) Other provisions

Breakdown of other provisions

€ mill.	2018	2017
Personnel-related provisions	10.4	9.8
Warranty obligations and follow-up costs	1.9	4.0
Litigation risks and impending losses	0.0	0.0
Other provisions	4.7	10.1
Other noncurrent provisions	**17.0**	**23.9**
Personnel-related provisions	0.1	0.2
Warranty obligations and follow-up costs	7.6	12.7
Litigation risks and impending losses	9.1	5.9
Other provisions	19.6	25.6
Other current provisions	**36.4**	**44.4**
	53.4	**68.3**

All provisions reported as current provisions have maturities of one year or less. All provisions reported as noncurrent provisions have 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 effect of discounting is material, noncurrent provisions are recognized at the present value of the uncertain obligations.

The maximum risk inherent to other provisions is €20.1 million above the amount recognized in the balance sheet (previous year: €27.6 million). Additional risks of €2.2 million (previous year: €4.5 million) exist as below-the-line items with a probability below 50 percent.

In addition to obligations from partial retirement contracts, the personnel-related provisions also include provisions for possible nonrecurring payments required under the law in France ("Indemnités de fin de carrière") 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, because of the way they have been structured, classified as a "defined benefit plan." As these are not lifelong pension payments, the resulting provisions are included in the line item other provisions.

Assets have partially been set up in an external benefit fund ("plan assets") in order to finance the expected payments. The provisions recognized on the balance sheet therefore constitute the total of the fair value of the plan assets and the present value of the obligation:

Assumptions for the calculation of provisions for "Indemnités de fin de carrière"

%	2018	2017
Discount rate	1.54	1.55
Expected increase of wage and salary payments	2.0	2.0
Turnover probability	**0 to 10**	**0 to 10**

The following table shows how the present value of the obligation, measured using a discount rate of 1.54 percent (previous year: 1.55 percent), and the plan asset established for financing purposes developed during the 2018 fiscal year and the previous year:

Changes in provisions for "Indemnités de fin de carrière"

€ mill.	Present value of the obligations	Fair value of plan assets	Total
As of 1/1/2017	**7.5**	**(1.1)**	**6.4**
Service cost	0.4		0.4
Net interest expense/(income)	0.1	0.0	0.1
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		(0.1)	(0.1)
Gains/losses on changes in financial assumptions	0.3		0.3
Experience-related assumptions	(0.1)		(0.1)
Benefits paid	(0.1)	0.1	0.0
As of 12/31/2017	**8.1**	**(1.1)**	**7.0**
Service cost	0.5		0.5
Net interest expense/(income)	0.1	0.0	0.1
Remeasurements			
Return on plan assets excluding the portion included in net interest expense		0.1	0.1
Gains/losses on changes in financial assumptions	0.1		0.1
Experience-related assumptions	0.1		0.1
Benefits paid	(0.1)	0.1	0.0
As of 12/31/2018	**8.8**	**(0.9)**	**7.9**

Change in other provisions

€ mill.	Opening balance 1/1/2018	Addition from first-time consolidation	Utilization	Release	Addition	Interest effect	Currency translation differences	Closing balance as of 12/31/2018
Personnel-related provisions	10.0	0.0	(0.3)	(0.1)	0.9	0.0	0.0	10.5
Warranty obligations and follow-up costs	16.7	0.1	(3.3)	(6.7)	2.7	0.0	0.0	9.5
Litigation risks and impending losses	5.9	0.0	(1.5)	(2.7)	7.4	0.0	0.0	9.1
Sundry provisions	35.7	2.2	(5.2)	(13.0)	4.1	0.5	0.0	24.3
Other provisions	**68.3**	**2.3**	**(10.3)**	**(22.5)**	**15.1**	**0.5**	**0.0**	**53.4**

Liabilities according to remaining terms

€ mill	2018	2017	2018	2017	2018	2017	2018	2017
Remaining term	up to 1 year		1–5 years		> 5 years		Total	
Financial liabilities	88.6	55.7	146.3	134.3	121.6	114.5	356.5	304.5
Trade payables	139.2	141.9	0.0	0.0	0.0	0.0	139.2	141.9
Income tax liabilities	1.8	6.3	0.0	0.0	0.0	0.0	1.8	6.3
Other liabilities	84.0	72.7	7.4	4.6	0.0	0.0	91.4	77.3
Total	**313.6**	**276.6**	**153.7**	**138.9**	**121.6**	**114.5**	**588.9**	**530.0**

The warranty obligations include both provisions for specific warranty cases and the general warranty costs empirically derived from past sales. 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 €6.5 million (previous year: €2.9 million). The other provisions include provisions for risks from company disposals and possible claims for damages. The release of other provisions concern subsequent effects from the sale of former business units in an amount of €11.0 million.The income resulting from this is reported in the result from discontinued operations in the income statement. Claims for reimbursement in connection with the latter risks are accounted for under other assets.

(26.1) Financial liabilities

Breakdown of financial liabilities

€ mill.	2018	2017
Other noncurrent liabilities to banks	263.7	248.8
Noncurrent finance leases	4.2	0.0
Noncurrent financial liabilities	**267.9**	**248.8**
Current liabilities to bank	86.3	54.1
Interest payable	1.5	1.6
Current finance leases	0.8	0.0
Current financial liabilities	**88.6**	**55.7**
Financial liabilities	**356.5**	**304.5**

Financial liabilities are principally carried at amortized cost.

In 2015, a syndicated loan of €500 million with a term of three years was concluded between Vossloh AG and eleven credit institutions. The loan has two tranches: €200 million is available in the form of a bullet loan and €300 million in the form of a revolving credit line. The interest rate is dependent on the amount of specific indicators (covenants). At the same time, a breach of the thresholds defined in these covenants leads to an early right of cancellation on the part of the lending banks. The covenants are defined as the ratio of net financial debt to EBITDA, the ratio of EBITDA to the net interest result, and the equity ratio. Compliance with the covenants was reviewed every quarter; they were complied with until this loan was repaid in the previous year. In March 2017, Vossloh canceled and called back €100 million of the bullet loan ahead of schedule.

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. The agreed interest rate is fixed at 0.988 percent for the four-year maturities for an amount of €85 million, and variable at an amount of €50 million with a margin of 85 basis points above Euribor. For the seven-year maturities, a partial amount of €90 million has a fixed interest rate of 1.763 percent and the remaining amount of €25 million, 120 basis points above Euribor. A floor of 0.0 percent is respectively applicable to the reference value. The loans were used to fully repay the bullet loan in the amount of €100 million outstanding and to partially reduce the revolving credit line. Under the revolving credit line, Vossloh AG still had around €150 million available.

At the end of November 2017, Vossloh AG concluded a new €150 million syndicated loan with eight banks, definitively replacing the syndicated loan which had been in place since 2015 and was scheduled to expire in April 2018. The financing agreement has a term until November 2023 and, after the exercise of the first extension option in November 2018, still contains one option to extend the credit period by one year, which can be exercised in November 2019. In addition, the volume of the loan can be increased if needed by up to €150 million. 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 here. If the agreed threshold of this key figure is breached, this 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 (basis points above Euribor). This was currently 1.2 percent. As of the balance sheet date, €56.2 million of the credit line had been utilized (previous year: €0.0 million). Compliance with the covenant is checked every six months; this was the case in the reporting year.

For the reconciliation of financial liabilities to the IFRS 9 valuation categories, see page 104 et seq, "First-time application of standards and interpretations."

At a US Group company, there are covenants related to a bank line that could be used for project-related guarantees. In this context, the necessary covenants were fulfilled at all times.

(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."

(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.	2018	2017
Freestanding derivatives	5.0	0.0
Derivatives from cash flow hedges	0.1	0.0
Noncurrent financial liabilities	**5.1**	**0.0**
Personnel-related liabilities	0.1	1.6
Other	2.2	3.0
Noncurrent nonfinancial liabilities	**2.3**	**4.6**
Other noncurrent liabilities	**7.4**	**4.6**
Other nonincome taxes	5.1	5.3
Social security and health insurance contributions	4.8	4.0
VAT payable	3.9	5.5
Freestanding derivatives	3.6	0.1
Liabilities to other long-term investees and investors	3.4	2.7
Liabilities to employees	2.2	1.9
Other liabilities to affiliated companies	1.4	1.1
Debtors with credit balances	0.2	0.1
Commissions	0.2	0.3
Liabilities due to insurance companies	0.2	0.2
Derivatives from cash flow hedges	0.1	0.3
Current financial liabilities	**25.1**	**21.5**
Personnel-related liabilities	29.1	28.5
Advance payments received	14.3	13.0
Deferred income	1.5	0.6
Other	14.0	9.1
Current nonfinancial liabilities	**58.9**	**51.2**
Other current liabilities	**84.0**	**72.7**

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. Gains/losses from the restatement at fair value of derivatives are recognized in the income statement, as are the changes in value of the associated underlying transactions. In contrast, the corresponding gains/losses from measuring derivatives in cash flow hedges at fair value are recognized directly in equity after considering deferred taxes.

For the reconciliation of other liabilities to the IFRS 9 valuation categories, see pages 140 et seq., "Additional information on financial instruments."

The prepayments received, recognized at €14.3 million (previous year: €13.0 million) under other liabilities, include advance 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. The other current liabilities include adopted but not yet distributed dividend payments to noncontrolling interests of €4.3 million.

Notes to the segment report

The primary format for segment reporting is defined by Vossloh's internal organizational and reporting structures, which are based on 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 core divisions has not changed compared with the previous year. In addition to the Fastening Systems business unit, the Tie Technologies business unit acquired at the beginning of 2017 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. As of the balance sheet date, the Transportation division consisted solely of the Locomotives business unit, which was reported as a "discontinued operation" after the sale of the former Electrical Systems business unit was completed on January 31, 2017.

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 fastening systems for every application – from light-rail to heavy-haul and high-speed lines. Vossloh Tie Technologies, another business unit within this division, is North America's leading manufacturer of concrete ties. In addition to concrete ties, switch ties, concrete elements for slab tracks and level crossing systems are manufactured at several plants in the U.S. and at a production site in Mexico. In December 2018, Vossloh Tie Technologies acquired a leading manufacturer of concrete ties in Australia, Austrak Pty Ltd.

The Customized Modules division and the Switch Systems business unit comprised in this division are among 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. Here, also, the lineup extends from light-rail to high-speed applications.

The Lifecycle Solutions division and 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.

The Transportation division includes the rail vehicle and vehicle system/component operations plus the related services. The division comprises the Locomotives business unit available for sale. In the previous year the Electrical Systems business unit, which has since been sold, was also part of it.

For around 100 years, the diesel locomotives developed and produced in the Locomotives business unit have set new benchmarks in terms of technological standards, economy, flexibility and eco-friendliness. This business unit also offers extensive services – particularly those relating to locomotive servicing and maintenance.

The former Electrical Systems business unit develops and produces key electrical components and systems for public transportation rail vehicles and locomotives. The contract for the sale of this business unit was signed in December 2016 and concluded at the end of January 2017.

In the consolidation, all intrasegment and intersegment transactions are eliminated. This pertains primarily to the offsetting of intragroup income/expenses, the elimination of intragroup income and dividends and the elimination of receivables/payables. The accounting methods applied by all segments are identical and conform to IFRS as adopted by the EU. Intersegment business is transacted on at arm's length basis.

Segment information is presented for each division and business unit on pages 100 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. In this context, a WACC of 7.5 percent before tax was employed in the reporting year as well as 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.	2018	2017
Value added	(5.8)	11.1
Cost of capital employed (WACC: 7.5 percent)	60.0	59.2
EBIT	**54.2**	**70.3**

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 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 42 of the combined management report.

Segment information by region

€ mill.	2018	2017	2018	2017
	External sales revenues		Noncurrent assets[1]	
Germany	85.7	74.3	166.8	136.0
France	102.1	97.8	148.8	134.0
Rest of Western Europe	67.3	69.6	28.6	29.6
Northern Europe	111.6	114.5	16.8	18.0
Southern Europe	77.2	62.9	1.9	1.3
Eastern Europe	83.7	50.3	7.7	7.2
Total of Europe	**527.6**	**469.4**	**370.6**	**326.1**
Americas	158.7	158.4	161.3	152.9
Asia	132.1	215.6	12.7	12.4
Africa	19.3	46.3	0.0	0.0
Australia	23.5	21.0	31.9	7.8
Total	**861.2**	**910.7**	**576.5**	**499.2**

[1] Excluding financial instruments and deferred tax assets

Additional information on financial instruments

Financial instruments are now recognized and measured according to the measurement categories of IFRS 9. The previous categorization model for financial assets (held-to-maturity, loans and receivables, available-for-sale) contained in IAS 39 has been replaced by the following categories:

- 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

Nonderivative financial instruments on the assets side 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

In the case of derivative financial instruments, the value of which is derived from a basis value, these pertain particularly to foreign currency forwards.

The Vossloh Group uses derivative financial instruments primarily to hedge for currency risks from firm foreign-currency contractual obligations, future currency receivables/payables, price risks from sales or sourcing transactions and interest rate risks arising from long-term financing.

Hedges of assets and liabilities reported in the balance sheet are recognized as stand-alone derivatives. The offsetting changes in value of the underlying and hedging transactions, which relate to the hedged risk, are recognized in the balance sheet. Any fair value changes (gains/losses) due to exchange rate volatility are recognized in the income statement. In a completely effective hedge (in the case of a micro hedge this is generally the case), the gains (or losses) on the derivative's fair value remeasurement equal the losses (or gains) on the underlying's. Rather than being carried out on the basis of planned items, the hedging of currency exposure is typically handled directly after an order is received by means of a foreign currency forward.

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 associated gains/losses previously recognized in profit and loss are either recycled to the income statement or offset against the cost of purchased assets. The cash flow hedges existing on December 31, 2018 had a maximum term of seven years.

The nominal volume of the hedged foreign currencies is divided as follows:

€ mill.	Currency	2018	2017
USA	USD	206.3	185.7
United Kingdom	GBP	–	1.7
Australia	AUD	14.7	1.5
Poland	PLN	–	1.2
China	CNY	–	2.7
United Arab Emirates	AED	–	0.4
South Africa	ZAR	0.3	0.3
		221.3	**193.5**

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.			2018	2018	2017	2017
Interest rate swaps	Maturity	up to 1 year	–	–	(0.3)	50.0
		up to 5 years	–	–	–	–
		over 5 years	(0.1)	8.0	–	–
			(0.1)	**8.0**	**(0.3)**	**50.0**
Foreign currency forwards	Maturity	up to 1 year	(3.0)	151.7	2.9	149.3
		up to 5 years	(5.0)	69.6	0.5	44.2
		over 5 years	–	–	–	–
			(8.0)	**221.3**	**3.4**	**193.5**
Total			**(8.1)**	**229.3**	**3.1**	**243.5**

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 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, 2018

€ mill.	IFRS 9 carrying amounts according to 12/31/2018 balance sheet	Measurement categories pursuant to IFRS 9			Fair values as of 12/31/2018
		Amortized cost	Fair value through OCI (FVOCI)	Fair value through profit or loss (FVTPL)	
Trade receivables	212.6	212.6			212.6
Securities	0.5	0.1	0.4		0.5
Other financial instruments and other assets	32.9	32.2		0.7	32.9
Cash and cash equivalents	48.7	48.7			48.7
Total financial assets	**294.7**	**293.6**	**0.4**	**0.7**	**294.7**
Financial liabilities	351.5	351.5			351.5
Trade payables	139.2	139.2			139.2
Other liabilities	70.9	62.1	0.1	8.7	70.9
Total financial liabilities	**561.6**	**552.8**	**0.1**	**8.7**	**561.6**

Carrying amounts, measurement categories and fair values as of December 31, 2017

€ mill.	Carrying amounts acc. to balance sheet 12/31/2017	Measurement pursuant to IAS 39			Fair values as of 12/31/2017
		(Amortized) cost	Fair value through OCI	Fair value through profit or loss	
Trade receivables	**210.3**				
Loans and receivables	210.3	210.3			210.3
Securities	**0.5**				
Held to maturity	0.1	0.1			0.1
Held for trading	0.0			0.0	0.0
Available for sale	0.4		0.4		0.4
Other financial instruments and other assets	**36.0**				
Loans and receivables	29.3	29.3			29.3
Held to maturity	2.7		2.7		2.7
Held for trading	0.0			0.0	0.0
Available for sale	0.6	0.6	0.0	0.0	0.6
Derivatives in hedging relationships (not a category according to IAS 39.9)	3.4	0.0	0.0	3.4	3.4
Cash and cash equivalents	**96.3**				
Loans and receivables	96.3	96.3			96.3
Total financial assets	**343.1**	**336.6**	**3.1**	**3.4**	**343.1**
Financial liabilities	**304.5**	**304.5**			**304.5**
Trade payables	**141.9**	**141.9**			**141.9**
Other liabilities	**55.5**				
Sundry liabilities	55.2	55.2			55.2
Derivatives in hedging relationships (not a category according to IAS 39.9)	0.3		0.2	0.1	0.3
Total financial liabilities	**501.9**	**501.6**	**0.2**	**0.1**	**501.9**

Measurement pursuant to IAS 39

€ mill.	Carrying amounts acc. to balance sheet 12/31/2017	Measurement pursuant to IAS 39			Fair values as of 12/31/2017
		Amortized cost	Fair value through OCI	Fair value through profit or loss	
Financial assets					
Loans and receivables	335.9	335.9			335.9
Held to maturity	2.8	0.1	2.7		2.8
Held for trading	0.0			0.0	0.0
Available for sale	1.0	0.6	0.4		1.0
Total financial assets	**339.7**	**336.6**	**3.1**	**0.0**	**339.7**
Financial liabilities					
Measurement at amortized cost	501.6	501.6	–	–	501.6
Total financial liabilities	**501.6**	**501.6**	**–**	**–**	**501.6**

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 liabilities from construction contracts as well as other liabilities also usually 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 derivatives in hedging relationships.

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 fair value (Level 2)		Measurement not based on fair value (Level 3)	
€ mill.	12/31/2018	12/31/2017	12/31/2018	12/31/2017	12/31/2018	12/31/2017
Financial assets measured at fair value			0.4	3.8		
Financial liabilities measured at fair value			8.8	0.3		

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. Level 2 covers inputs for identical or similar assets/liabilities derived from observable market data. Level 3 is for when no observable market data are available, so a measurement model must be used for fair value.
The potential offsetting of financial instruments based on legally enforceable global netting agreements is shown in the following table:

Offsetting possibilities for derivative financial assets and liabilities

€ mill.	2018	2017
Financial assets		
Recognized gross amounts of financial assets	0.7	3.4
Financial instruments that qualify for offsetting	0.0	0.0
Net balance sheet figures of financial assets	**0.7**	**3.4**
Offsettable on the basis of framework agreements	(0.7)	(0.1)
Total net value of financial assets	**0.0**	**3.3**
Financial liabilities		
Recognized gross amounts of financial liabilities	(8.8)	(0.3)
Financial instruments that qualify for offsetting	0.0	0.0
Net balance sheet figures of financial liabilities	**(8.8)**	**(0.3)**
Offsettable on the basis of framework agreements	0.7	0.1
Total net value of financial liabilities	**(8.1)**	**(0.2)**

The net gains/losses and net interest income/expense recognized in the income statement result from the following financial instrument measurement categories:

Net gains/(losses) on financial instruments by measurement category

€ mill.	Assets at amortized cost	Assets at fair value through profit or loss (FVTPL)	Liabilities at amortized cost	Liabilities at fair value through OCI (FVOCI)	2018	2017
Net gains/(losses) from:						
Interests	0.1	0.1	(4.7)		(4.5)	(7.2)
Remeasurement						
from allowances	1.6				1.6	(0.6)
from currency translation differences	(0.2)				(0.2)	(0.9)
at fair value		2.8		0.2	3.0	0.0
Disposal					0.0	0.1
Total	**1.5**	**2.9**	**(4.7)**	**0.2**	**(0.1)**	**(8.6)**

Interest is shown within net interest expense, allowances for loans and (primarily trade) receivables are recognized within the functional (mainly selling) expenses while the net gains or losses on disposal and currency translation are disclosed within net other operating income (or expense, as applicable). 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 at all times to meet its payment obligations) through rolling liquidity planning and a central cash management system. As of the end of the year cash, cash equivalents and readily salable securities of €49.2 million were at the Group's disposal, as well as additional, un-utilized credit facilities of €183.2 million to satisfy any future liquidity requirements. €93.8 million were related to free credit lines of Vossloh AG under the syndicated loan with a term until November 2023. The majority of the free credit lines of the subsidiaries, which totaled €89.4 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.	2018		2017		2018		2017		2018		2017	
	Repay-ment	Interest	Repay-ment	Interest	Repay-ment	Interest	Repay-ment	Interest	Repay-ment	Interest	Repay-ment	Interest
Nonderivative financial liabilities	(88.6)	(3.9)	(55.7)	(4.1)	(143.8)	(11.5)	(134.2)	(10.8)	(119.8)	(2.3)	(114.5)	(2.9)
Derivative financial liabilities	(3.7)		(0.3)		(5.1)		0.0		0.0		0.0	
Derivative financial assets	0.7		3.4									

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 rate effects on cost estimates and assets. As of the reporting date, Vossloh has not designated any currency derivatives as a cash flow hedge; as such, all 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 "Accumulated other comprehensive income" balance sheet item (see "Currency translation" on page 111). 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-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 and caps (see the glossary for these terms, page 165).

In connection with hedge accounting, such interest rate hedging transactions are accounted for as cash flow hedges. The nominal amount of the interest rate swap amounted to €9.0 million as of the reporting date and has a term until the end of 2025. The "critical terms match" is applied as the method for assessing the effectiveness of the hedge. The swap displays an effectiveness of 100 percent. The effects from the swap were recognized directly in other comprehensive income at €0.2 million as of the reporting date.

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" on pages 140 et seq.

Taking into account the existing interest rate derivatives, 54 percent of the financial liabilities were taken up with fixed interest rates as of the reporting date, with 46 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 0.2 percent (parallel shift in the yield curve);
- a simultaneous appreciation 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 is higher by 100 percentage points related to the financial liabilities and receivables identified with variable rates as of December 31, 2018, would have increased the financial result by €0.8 million. A market interest rate that was lower by 25 points would have reduced the net financial result by €0.1 million owing to the existing Euribor floor rule in the syndicated loan. 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 on the provision for hedging transactions:

Sensitivity analysis of key foreign currency derivatives

		Equity			Equity	
€ mill.	2018	+ 10 %	– 10 %	2017	+ 10 %	– 10 %
USD	206.3	0.1	(1.0)	185.7	0.0	0.0
CNY	0.0	0.0	0.0	2.7	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 default 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
Trade receivables				
2018	136.7	76.1	12.5	225.3
2017	142.4	70.9	12.9	226.2
Others				
2018	44.6	1.0	1.5	47.1
2017	40.3	3.4	0.1	43.8

The analysis below breaks down the receivables past due but not impaired:

Receivables past due but not impaired

€ mill.	Up to 1 month	1 to 3 months	3 to 6 months	6 to 12 months	More than 12 months	Total
Trade receivables						
2018	26.6	15.7	11.8	12.4	9.6	**76.1**
2017	30.8	12.4	9.9	11.8	6.0	**70.9**
Others						
2018	0.3	0.0	0.1	0.3	0.3	**1.0**
2017	0.1	1.1	0.6	0.9	0.7	**3.4**

No specific default risk arises from past due receivables since, given the customer structure of the Vossloh Group, many debtors are government or other public-sector agencies. In terms of financial assets which are neither past due nor impaired, no indications of potential impairment existed on the balance sheet date.

The maximum credit risk of all financial assets corresponds to their carrying amounts (see analysis on page 142).

Other disclosures

Contingent liabilities

In comparison to December 31, 2017, contingent liabilities decreased by €3.1 million to €21.3 million. As in the previous year, €9.0 million was attributable to total contingent liabilities for the former Electrical Systems business unit sold with effect from January 2017. Vossloh AG was given an irrevocable and unconditional guarantee for these contingent liabilities at first request by a first-class bank. The Group has incurred contingent liabilities under guarantees of €3.5 million (previous year: €5.7 million), (of which €3.2 million (previous year: €5.4 million) are attributed to nonconsolidated affiliated companies) and of €17.8 million (previous year: €18.7 million) for letters of comfort (including €9.1 million (previous year: €10.0 million) attributed to nonconsolidated affiliated companies). The risk of a claim is considered unlikely for all of the listed contingent liabilities.

Other financial obligations

Commitments arising from the acquisition of property, plant and equipment and intangible assets totaled €16.0 million (previous year: €21.0 million).

The minimum undiscounted future payments under operating leases and rental agreements respectively amounted to €36.9 million (previous year: €30.8 million). Commitments under operating leases fall due as follows:

Financial commitments under operating leases

€ mill.	2018	2017
Due up to 1 year	4.8	4.5
Due in 1 to 5 years	7.8	8.6
Due in more than 5 years	2.8	2.7
	15.4	**15.8**

Financial commitments under rental agreements

€ mill.	2018	2017
Due up to 1 year	5.5	5.9
Due in 1 to 5 years	11.5	6.9
Due in more than 5 years	4.5	2.2
	21.5	**15.0**

The obligations under operating leases have been incurred primarily for factory and office equipment. The following payments were recognized in profit or loss:

Lease payments recognized as an expense

€ mill.	2018	2017
thereof from minimum lease payments	4.6	2.0
thereof from contingent rental payments	1.1	1.0
thereof from subleases	0.1	0.1

Future minimum payments of €4.8 million are expected under noncancelable subleases (previous year: €0.8 million).

Significant Group companies with shareholders that have a noncontrolling interest are:
1. Vossloh Fastening Systems (China) Co. Ltd., Kunshan, China
2. Vossloh Cogifer Kihn SA, Rumelange, Luxembourg.

Re 1.: 32 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest. In the 2018 fiscal year, €4.1 million (previous year: €8.7 million) of the company's net income was attributable to these shareholders. As of December 31, 2018, the share of equity attributable to shareholders with a noncontrolling interest was €10.5 million (previous year: €14.9 million).

Significant financial information for Vossloh Fastening Systems (China) Co. Ltd., Kunshan, China

€ mill.	2018	2017
Noncurrent assets	12.1	13.8
Current assets	73.1	80.4
Noncurrent liabilities	0.9	2.7
Current liabilities	51.6	44.8
Sales revenues	57.1	128.8
Net income after taxes	12.9	27.3
Total comprehensive income	12.4	24.7
Cash flow	(0.9)	(3.0)
Dividends to shareholders	26.3	20.7

Re 2.: 10.79 percent of the shares of capital of this company are held by shareholders with a noncontrolling interest. In the 2018 fiscal year, €0.5 million (previous year: €(0.2) million) of the company's net income was attributable to these shareholders. As of December 31, 2018, the share of equity attributable to shareholders with a noncontrolling interest was €1.9 million (previous year: €1.4 million).

Significant financial information for Vossloh Cogifer Kihn, SA, Rumelange, Luxembourg

€ mill.	2018	2017
Noncurrent assets	16.0	16.3
Current assets	19.7	19.7
Noncurrent liabilities	0.8	0.6
Current liabilities	17.3	22.3
Sales revenues	49.6	45.2
Net income after taxes	4.4	(2.1)
Total comprehensive income	4.4	(2.1)
Cash flow	(0.5)	1.1
Dividends to shareholders	0.0	0.5

Where shareholders of other Group companies hold noncontrolling interests, these interests are insignificant both individually and cumulatively.

Related party transactions

As the ultimate controlling parent, Vossloh AG is at the helm of the Vossloh Group. The consolidated companies of the Vossloh Group regularly transact normal business with unconsolidated affiliated companies, joint ventures 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 152 et seq.

Individuals among the Vossloh Group's related parties are the members of the Executive and Supervisory Boards and certain other senior management staff.

Mr. Heinz Hermann Thiele, who was the largest single shareholder in the Annual General Meetings in recent years, indirectly controls the companies of the Knorr-Bremse Group. These companies are accordingly to be treated as related parties. Transactions with companies of the Knorr-Bremse Group in the fiscal year resulted in material purchases in the amount of €0.1 million (previous year: €0.0 million), sales in the amount of €0.0 million (previous year: €0.1 million) as well as open receivables and advance payments as of December 31, 2018, in the amount of €0.0 million (previous year: €0.0 million) and trade payables of €0.0 million (previous year: €0.0 million). Other securities were granted in the amount of €0.1 million in the previous year. There is also a financial asset worth €3.9 million resulting from the sale of shares of the former Vossloh Kiepe GmbH, Düsseldorf.

The table below breaks down the period's transactions with related parties (entities/individuals), 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. Transactions with associated companies are also taken into consideration. The volume of transactions with related individuals was negligible.

€ mill.	2018	2017
Sale or purchase of goods		
Sales revenues from the sale of finished goods or WIP	11.7	16.1
Cost of materials from the purchase of finished goods or WIP	0.7	7.3
Trade receivables	7.8	13.1
Trade payables	1.0	2.1
Sale or purchase of other assets		
Income from the sale of other assets	0.4	0.9
Receivables from the sale of other assets	4.9	0.4
Liabilities from the purchase of other assets	1.1	1.1
Services rendered or received		
Income from services rendered	1.1	1.5
Expenses for services received	0.8	1.6
Licenses		
License income	0.1	0.0
License expenses	0.6	1.2
Financing		
Interest income from financial loans granted	0.0	0.1
Receivables on financial loans granted	8.8	5.6
Provision of guarantees and collateral		
Provision of guarantees	3.2	5.4
Provision of other collateral	1.3	1.4

Supervisory Board members receive short-term benefits of €435.8 thousand for the reporting period (previous year: €420.0 thousand). For an itemized breakdown by member of this total, and further details of the remuneration system, see the remuneration report (an integral part of the Vossloh Group's combined management report).

Executive Board remuneration

€ mill.	2018	2017
Short-term total remuneration paid	2.5	4.0
Post-employment benefits	0.4	0.4

In the year under review, former Executive Board members received benefits in the form of pension payments totaling €1,172.9 thousand (previous year: €1,133.3 thousand). Pension obligations to former Executive Board and management members and their dependents amount to €24.8 million (previous year: €24.9 million). The full amount of these obligations is recognized in the consolidated financial statements, and the majority of them are covered by plan assets.

Auditor fees

The following fees for services rendered by the statutory auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, as well as by firms of KPMG AG's international network in the reporting year were recognized as an expense:

Auditor fees

€ mill.	2018	2017
Statutory audits	1.5	1.3
Other certification/verification services	0.1	0.1
Tax advisory services	0.0	0.0
Other services	0.0	0.1
	1.6	**1.5**

In the 2018 fiscal year, the Group auditor's fees include €0.6 million for statutory audits (previous year: €0.6 million), €0.1 million for other attestation services (previous year: €0.1 million) plus €0.0 million (previous year: €0.0 million) for tax advisory services and €0.0 million (previous year: €0.0 million) for other services.

The fees for statutory audits mainly include those paid for the mandatory Group audit and the statutory audits by KPMG AG of Vossloh AG and its German subsidiaries' financial statements. In addition, there were report reviews of the interim financial statements. The fees for other attestation services include fees for consulting in connection with the continued development of the compliance management system. The fees include €0.1 million (previous year: €0.1 million) for other attestation services plus €0.0 million (previous year: €0.0 million) for tax advisory services provided by KPMG firms based outside of Germany but invoiced through KPMG AG.

German Corporate Governance Code

In November 2018, 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 the stockholders on Vossloh's website.

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	Consoli-dation[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, Delaware, 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-Werke GmbH, Werdohl	3	100.00	(1)	(k)		
(6)	Vossloh Fastening Systems GmbH, Werdohl	3	100.00	(5)	(k)		
(7)	Vossloh Tehnica Feroviara SRL, Bucharest, Romania		100.00	(5)	(n)	0.1	0.0
(8)	Vossloh Drázni Technika s.r.o., Prague, Czech Republic		100.00	(5)	(n)	0.7	0.3
(9)	Vossloh Sistemi S.r.l., Cesena, Italy		100.00	(5)	(k)		
(10)	Vossloh Skamo Sp.z o.o., Nowe Skalmierzyce, Poland		100.00	(5)	(k)		
(11)	Vossloh Rail Technologies Ltd. Sti., Erzincan, Turkey		99.5/0.5	(5)/(6)	(k)		
(12)	FÉDER-7 Rugógyártó Kft., Sárkeresztes, Hungary		96.67/3.33	(5)/(6)	(n)	0.4	0.0
(13)	Vossloh Fastening Systems America Corp., Chicago, Illinois, USA		100.00	(3)	(k)		
(14)	Vossloh Fastening Systems (China) Co. Ltd., Kunshan, China		68.00	(5)	(k)		
(15)	Vossloh-Werke International GmbH, Werdohl		100.00	(5)	(k)		
(16)	Beijing China-Railway Vossloh Technology Co. Ltd., Beijing, China		49.00	(5)	(n)	2.1	0.6
(17)	Vossloh Fastening Systems Southern Africa Proprietary Limited, Cape Town, South Africa		100.00	(89)	(n)	0.0	0.0
(18)	TOO Vossloh Fastening Systems (Kazakhstan), Kapshagay, Kazakhstan		50.00	(15)	(e)		
(19)	Suzhou Vossloh Track Systems Co. Ltd., Suzhou, China		100.00	(15)	(k)		
(20)	AO Vossloh Fastening Systems RUS (formerly: OAO Vossloh Fastening Systems RUS), Engels, Russia	4	50.00	(5)	(e)		
(21)	Vossloh Fastening Systems Australia Pty Ltd., Sydney, Australia		100.00	(4)	(n)	1.0	0.0
(22)	OOO Vossloh Bahn- und Verkehrstechnik, Moscow, Russia	4	99.00/1.00	(88)/(2)	(k)		
(23)	Vossloh Maschinenfabrik Deutschland GmbH, Werdohl		100.00	(5)	(n)	(1.9)	(0.2)
(24)	Vossloh Fastening Systems India Private Limited, New Delhi, India		99.00/1.00	(5)/(15)	(n)	0.0	0.0
	Tie Technologies business unit						
(25)	Rocla International Holdings, Inc., Wilmington, Delaware, USA		100.00	(3)	(k)		
(26)	Rocla Concrete Tie, Inc., Lakewood, Colorado, 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)	RCTI Texas LLC, Dallas, Texas, USA		100.00	(26)	(k)		
(29)	RocBra Participacoes e Empreendimentos Ltda., São Paulo, Brazil		100.00	(25)	(n)	5.0	0.0
(30)	Cavan Rocbra Industria E Comercio De Pre Moldados De Concreto Ltda., São Paulo, Brazil		20.00	(29)	(n)	25.8	9.4
(31)	Austrak Pty Ltd., Brisbane, Australia	4	100.00	(4)	(k)		
(32)	Vossloh Tie Technologies Canada ULC, Vancouver, Canada		100.00	(26)	(n)	0.0	0.0
	Customized Modules division						
	Switch Systems business unit						
(33)	Vossloh France SAS, Rueil-Malmaison, France		100.00	(1)	(k)		
(34)	Vossloh Cogifer SA, Rueil-Malmaison, France		100.00	(33)	(k)		
(35)	Jacquemard AVR SA, St. Jean Bonnefonds, France		100.00	(34)	(k)		
(36)	Vossloh Cogifer Finland Oy, Teijo, Finland		90.00	(37)	(k)		
(37)	Vossloh Nordic Switch Systems AB, Ystad, Sweden		100.00	(34)	(k)		
(38)	Vossloh Cogifer KIHN SA, Rumelange, Luxembourg		89.21	(34)	(k)		
(39)	Vossloh Laeis GmbH, Trier		100.00	(38)	(k)		
(40)	Futrifer-Indústrias Ferroviárias, SA, Lisbon, Portugal		61.00	(34)	(e)		
(41)	Amurrio Ferrocarril y Equipos SA, Amurrio, Spain		50.00	(34)	(e)		
(42)	Montajes Ferroviarios, S. L., Amurrio, Spain		100.00	(41)	(n)	0.3	(0.1)
(43)	Burbiola SA, Amurrio, Spain		50.00	(41)	(n)	1.4	0.1
(44)	Vossloh Cogifer UK Limited, Scunthorpe, United Kingdom		100.00	(34)	(k)		
(45)	Vossloh Cogifer Italia S.r.l., Milan, Italy		100.00	(34)	(k)		
(46)	Vossloh Cogifer Polska Sp.z o.o., Bydgoszcz, Poland		96.87	(34)	(k)		
(47)	ATO-Asia Turnouts Limited, Bangkok, Thailand		51.00	(34)	(e)		
(48)	Vossloh Cogifer Malaysia Sdn. Bhd., Kuala Lumpur, Malaysia		100.00	(34)	(k)		
(49)	Siema Applications SAS, Villeurbanne, France		100.00	(34)	(k)		

€ mill.		Footnote	Shareholding in %	at	Consoli-dation[1]	Equity[2]	Result after taxes[2]
(50)	VOSSLOH MIN SKRETNICE DOO ZA Proizvodnjui Montazu Skretnica i Opreme Nis, Niš, Serbia		100.00	(34)	(k)		
(51)	Vossloh Beekay Castings Ltd., New Delhi, India	5	58.48	(34)	(e)		
(52)	Vossloh Cogifer Turnouts India Private Limited, Hyderabad, India	5	100.00	(34)	(k)		
(53)	Vossloh Cogifer Signalling India Private Limited, Bangalore, India	5	100.00	(34)	(k)		
(54)	Vossloh Track Material, Inc., Wilmington, Delaware, USA		100.00	(3)	(k)		
(55)	Cleveland Track Material Inc., Cleveland, Ohio, USA		100.00	(3)	(k)		
(56)	Vossloh Cogifer Australia Pty Ltd., Castlemaine, Australia		100.00	(4)	(k)		
(57)	Vossloh Cogifer Kloos BV, Nieuw-Lekkerland, Netherlands		100.00	(34)	(k)		
(58)	Wuhu China Railway Cogifer Track Co. Ltd., Wuhu, China		50.00	(34)	(e)		
(59)	Vossloh Signaling USA, Inc., Wilmington, Delaware, USA		100.00	(3)	(k)		
(60)	Vossloh Cogifer Argentina S. A., Buenos Aires, Argentina		90.00/10.00	(34)/(35)	(n)	(2.5)	(0.2)
(61)	Vossloh Cogifer Southern Africa Proprietary Limited, Cape Town, South Africa		100.00	(89)	(n)	0.0	0.0
(62)	Vossloh Cogifer do Brasil Administracao de Bens e Participacoes Ltda., Sorocaba, Brazil		99.99/0.01	(34)/(35)	(k)		
(63)	Vossloh Cogifer do Brasil Metalúrgica MBM SA, Sorocaba, Brazil		100.00	(62)	(k)		
(64)	Outreau Technologies SAS, Outreau, France		100.00	(34)	(k)		
	Lifecycle Solutions division						
	Rail Services business unit						
(65)	Vossloh Rail Services GmbH, Hamburg	3	100.00	(1)	(k)		
(66)	Vossloh Rail Center GmbH, Hamburg	3	100.00	(65)	(k)		
(67)	GTS Gesellschaft für Gleistechnik Süd mbH, Leipzig	3	100.00	(66)	(k)		
(68)	Alpha Rail Team GmbH & Co. KG, Berlin	3	100.00	(66)	(k)		
(69)	Alpha Rail Team Verwaltungs GmbH, Berlin		100.00	(66)	(k)		
(70)	Vossloh Logistics GmbH, Hanover	3	100.00	(65)	(k)		
(71)	Vossloh Ray Hizmetleri Limited Sirketi, Ankara, Turkey		100.00	(74)	(k)		
(72)	Vossloh High Speed Grinding GmbH, Hamburg	3	100.00	(65)	(k)		
(73)	Vossloh Mobile Rail Services GmbH, Leipzig	3	100.00	(66)	(k)		
(74)	Vossloh Rail Services International GmbH, Hamburg	3	100.00	(65)	(k)		
(75)	Vossloh MFL Rail Milling GmbH, Liezen, Austria		50.00	(74)	(e)		
(76)	Vossloh Rail Services Scandinavia AB, Örebro, Sweden		100.00	(74)	(k)		
(77)	Vossloh Rail Services North America Corporation, Chicago, Illinois, USA		100.00	(3)	(n)	0.0	(0.1)
(78)	Beijing CRM-Vossloh Track Maintenance Technology Co., Ltd., Beijing, China		47.00	(74)	(e)		
(79)	Vossloh Rail Services Kunshan Co., Ltd., Kunshan, China		100.00	(74)	(k)		
(80)	Vossloh Rail Services Finland Oy, Kouvola, Finland		90.00	(74)	(k)		
(81)	Rhomberg Sersa Vossloh GmbH, Longuich	4	50.00	(65)	(e)		
	Transportation division						
	Locomotives business unit						
(82)	Vossloh Locomotives GmbH, Kiel	3	100.00	(1)	(k)		
(83)	Locomotion Service GmbH, Kiel	3	100.00	(82)	(k)		
(84)	Vossloh Locomotives France SAS, Paris, France		100.00	(82)	(k)		
(85)	Vossloh Locomotives Scandinavia AB, Örebro, Sweden		100.00	(82)	(k)		
(86)	Imateq SAS, Saint Pierre des Corps, France		55.00	(84)	(e)		
(87)	Imateq Italia S.r.l., Tortona, Italy		100.00	(82)	(k)		
	Other companies						
(88)	Vossloh Track Systems GmbH, Werdohl		100.00	(1)	(n)	(0.2)	(0.1)
(89)	Vossloh Southern Africa Holdings Proprietary Ltd., Johannesburg, South Africa		100.00	(88)	(n)	0.5	0.0
(90)	Vossloh Zweite Beteiligungsgesellschaft mbH, Werdohl		100.00	(1)	(n)	0.0	0.0
(91)	Vossloh Dritte Beteiligungsgesellschaft mbH, Düsseldorf		100.00	(90)	(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 average exchange rate as of the balance sheet date and post-tax profits or losses are translated at the annual average 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

Executive Board of Vossloh AG

Andreas Busemann, born 1966, Frankfurt am Main,
Chairman of the Executive Board
First appointment: 4/1/2017, appointed until: 3/31/2020

Volker Schenk, born 1964, Düsseldorf
First appointment: 5/1/2014, appointed until: 4/30/2020
External mandates:
- Institut für Bahntechnik GmbH: Member of the Supervisory Board

Group mandates:
- Vossloh Cogifer SA: Chairman of the Administrative Board (until 6/26/2018)
- Vossloh Cogifer SA: Chairman of the Supervisory Board (since 6/26/2018)
- Vossloh Australia Pty Ltd.: Member of the Administrative Board
- Vossloh Fastening Systems Australia Pty Ltd.: Member of the Administrative Board
- Vossloh Track Systems GmbH: Managing Director
- Vossloh International GmbH: Managing Director
- Vossloh Southern Africa Holdings Pty Ltd.: Managing Director
- Wuhu China Railway Cogifer Track Co. Ltd.: Member of the Administrative Board
- Vossloh Fastening Systems (China) Co. Ltd.: Chairman of the Administrative Board
- Beijing China-Railway Vossloh Technology Co. Ltd.: Member of the Administrative Board
- Beijing CRM-Vossloh Track Maintenance Technology Co. Ltd.: Chairman of the Supervisory Board
- Suzhou Vossloh Track Systems Co. Ltd.: Chairman of the Administrative Board

Oliver Schuster, born 1964, Kierspe
First appointment: 3/1/2014, appointed until: 2/29/2020
External mandates:
- Wohnungsgesellschaft Werdohl GmbH: Member of the Supervisory Board

Group mandates:
- Vossloh Cogifer SA: Member of the Administrative Board (until 6/26/2018)
- Vossloh Cogifer SA: Member of the Supervisory Board (since 6/26/2018)
- Vossloh France SAS: President

Supervisory Board of Vossloh AG

Dr.-Ing. Volker Kefer[2,4], Chairman, Erlangen,
former Deputy CEO of Deutsche Bahn AG
- Bombardier Transportation (Global Holding) UK Limited (Board Member) (until May 31, 2018)

Ulrich M. Harnacke[2,3,4], Deputy Chairman, Mönchengladbach,
Auditor and Tax Advisor
- Member of the Shareholders' Committee of Thüga Holding GmbH & Co. KGaA
- Member of the Supervisory Board and Chairman of the Audit Committee of Brenntag AG
- Member of the Advisory Board of Zentis GmbH & Co. KG, Aachen, Germany (since May 3, 2018)

Prof. Dr. Anne-Christine d'Arcy[3,4], (since 5/9/2018), Vienna, Austria,
University Professor for Corporate Governance and Management Control

Dr. Bernhard Düttmann[4] (since 5/9/2018),
Diplom-Kaufmann (MBA), Meerbusch, independent management consultant and
interim Member of the Executive Board of CECONOMY AG
- Member of the Supervisory Board of CECONOMY AG (mandate suspended due to appointment to the Executive Board)
- Member of the Supervisory Board of alstria office REIT-AG

Andreas Kretschmann[1], Neuenrade, social security employee

Dr.-Ing. Wolfgang Schlosser[4], (until 5/9/2018), Puchheim,
consultant and former Managing Director of Knorr-Bremse Systeme für Schienenfahrzeuge GmbH

Michael Ulrich[1,2,3], Kiel, Machinist

Ursus Zinsli[3,4], (until 5/9/2018), Saint-Sulpice (Canton of Vaud, Switzerland),
former Managing Director of Scheuchzer SA
- Vice-President of the Administrative Board of FURRER + FREY AG

[1]Employee representative
[2]Member of the Staff Committee
[3]Member of the Audit Committee
[4]Member of the Nomination Committee

In accordance with German GAAP, the financial statements for the 2018 fiscal year show a net loss of €3,549,815.47 and, after including the profit carryforward of €114,202,179.24, net profit retained of €110,652,363.77.

Proposed profit appropriation

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 €45,325,167.47 and that the remaining amount of €94,684,926.77 be carried forward. The total dividend amount is €15,967,437.00.

Werdohl, Germany, February 28, 2019,

Vossloh AG
The Executive Board

Andreas Busemann, Volker Schenk, Oliver Schuster

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 Vossloh 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, February 28, 2019,

Vossloh AG
The Executive Board

Andreas Busemann, Volker Schenk, Oliver Schuster

Independent auditor’s report

To Vossloh Aktiengesellschaft, Werdohl

Report on the audit of the consolidated financial statements and the Group management report

Auditor’s opinion

We have audited the consolidated financial statements of Vossloh AG, Werdohl, and its subsidiaries (the Group) – which comprise the consolidated balance sheet as of December 31, 2018, the income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the fiscal year from January 1 to December 31, 2018, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report (hereafter: the Group management report) of Vossloh AG for the fiscal year from January 1 to December 31, 2018. In accordance with the requirements of the German commercial code, we have not audited the nonfinancial Group statement, or the Declaration on Corporate Governance presented in the “Nonfinancial Group statement,” section and the “Reference to the corporate governance report pursuant to Section 289f HGB” section of the Group Management report.

In our opinion, based on our knowledge obtained in the audit,

- the accompanying consolidated financial statements comply in all material respects with IFRS as adopted by the EU and the supplementary requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code [HGB], and give a true and fair view of the net assets and financial position of the Group as of December 31, 2018, as well as the results of operations for the fiscal year from January 1 to December 31, 2018, and
- the attached Group management report, as a whole, provides an accurate view of the Group’s position. In all material respects, this Group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the Group management report does not cover the statements made in the nonfinancial Group statement, and the Declaration on Corporate Governance described above.

Pursuant to Section 322 (3) Sent. 1 HGB, we state that our audit of the consolidated financial statements has not led to any reservations with respect to the propriety of the consolidated financial statements and the Group management report.

Basis for these opinions

We conducted our audit in accordance with Section 317 HGB and the EU-auditor’s regulation [EU-Abschlussprüferverordnung] (No. 537/2014; hereafter: “EU-APrVO”) and in compliance with German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors [IDW]. Our responsibilities under those standards and additional guidelines are further described in the “Auditor’s responsibilities for the audit of the consolidated financial statements” section of our report. We are independent of the Group companies in accordance with the requirements of European and German commercial law and the rules of professional conduct, and we have fulfilled our other professional responsibilities applicable in Germany in accordance with these requirements. In accordance with Article 10 (2f) EU-APrVO, we declare that we have not provided prohibited nonaudit services as referred to in Article 5 (1) EU-APrVO. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the consolidated financial statements and the Group management report.

Key audit matters addressed in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance for our audit of the consolidated financial statements for the fiscal year from January 1 to December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, but we do not provide a separate opinion on these matters.

Measurement and presentation of the Locomotives business unit in accordance with IFRS 5

We refer to Note (7) in the notes to the consolidated financial statements for details of the accounting and measurement policies applied.

THE FINANCIAL STATEMENT RISK

Assets held for sale (the Locomotives business unit) totaled €104.5 million (previous year: €137.9 million) as of the balance sheet date. Liabilities held for sale totaled €70.6 million (previous year: €87.0 million) as of the balance sheet date. The result from discontinued operations amounted to €(2.1) million (previous year: €(35.8) million) in the 2018 fiscal year.

The measurements made in accordance with IFRS 5 resulted in an impairment write-down of €2.7 million (previous year: €26.0 million), which is included in the result from discontinued operations. The intention to sell has existed since the 2017 fiscal year.

In order for a business activity to be classified as held for sale, it must be available for sale in its present condition, the sale must be highly probable, and it must be expected that the sale will be completed within one year. If these three conditions are still deemed to be fulfilled as of the balance sheet date of December 31, 2018, the specific presentation and measurement requirements of IFRS 5 are applied. The measurement of assets held for sale is carried out at the lower of their carrying value or fair value less costs to sell.

There is a risk of incorrect reporting and a risk of an unrecorded impairment write-down as of December 31, 2018. In addition, there is also a risk that the disclosures in the notes are not correct.

OUR AUDIT APPROACH

We are satisfied that the conditions for classifying the Locomotives business unit as available for sale remained fulfilled as of the balance sheet date of December 31, 2018. For this purpose, we have interviewed the Executive Board and examined minutes of Executive Board and Supervisory Board meetings. In addition, our audit procedures included examining offers made by potential buyers and assessing the impairment calculation.

We have also performed audit procedures by examining the accounting records and the offers to determine whether the offers only relate to those assets and liabilities which are held for sale. Based on these audit procedures, we have assessed whether the balance sheet and income statement items are appropriately classified as assets and liabilities held for sale and as results from discontinued operations, respectively.

We have made an evaluation of the measurement as of the balance sheet date in accordance with IFRS 5 that the Group's assessments are appropriate and reasonable. In doing so, we have obtained and critically evaluated information from discussions with the Executive Board and the specialist departments at Vossloh AG. Further, we have verified the further expected selling costs with the relevant contracts and the arithmetic calculation of the resulting impairment write-down and its allocation to the noncurrent assets in the Locomotives business unit.

We have also made an assessment as to whether the disclosures presented in the notes are appropriate.

OUR CONCLUSIONS

The classification of the Locomotives business unit as a discontinued operation in accordance with IFRS 5 is appropriate. The measurement in accordance with IFRS 5 is reasonable and judgments made relevant to the measurement were applied in a reasonable manner. The necessary disclosures in the notes are appropriate.

Recognition and measurement of assets and liabilities included in the consolidated financial statements for the first time resulting from the acquisition of the rail milling division of STRABAG Rail GmbH

Please refer to the section "Consolidation" in the notes to the consolidated financial statements regarding the acquisition of the rail milling division of STRABAG Rail GmbH, Lauda-Königshofen.

THE FINANCIAL STATEMENT RISK

With the purchase agreement dated October 31, 2018, Alpha Rail Team GmbH & Co. KG acquired the rail milling division of STRABAG Rail GmbH, Lauda-Königshofen, effective as of December 21, 2018, for a purchase price of €15 million as part of an asset deal. The acquisition encompassed part of a business consisting of tangible and intangible assets as well as employees. In consideration of the acquired net equity of €20.5 million, a negative difference amounting to €5.5 million was incurred which was recognized in profit and loss.

In accordance with IFRS 3, a purchase price allocation is used to recognize the acquired assets and liabilities assumed at their fair values in the consolidated financial statements as of December 31, 2018. Vossloh engaged a third-party evaluator in order to classify and measure the identifiable assets and liabilities assumed.

For the purposes of the presentation of the acquisition in the consolidated financial statements, the acquired assets and liabilities first need to be identified. After identification, the individual assets and liabilities are then measured at their fair values, taking account of planning and other assumptions. Both steps are complex processes and require the Executive Board to make discretionary assumptions.

Since the value of the acquired assets and liabilities and the identified intangible assets exceeded the purchase price, the Company carried out a repeated assessment of the fair values of the acquired assets and liabilities and the identified intangible assets in accordance with the provisions of IFRS 3 and confirmed the previous assessment.

The risk for the financial statements is that the acquired assets and liabilities are not identified correctly or that the values ascribed to them are not correct. In addition, there is a risk that the disclosures made in the notes are not correct.

OUR AUDIT APPROACH

Our audit of the recognition and measurement of the acquired assets and liabilities recognized in the context of the acquisition of the rail milling division of Strabag was supported by our own valuation experts and included, among others, the following procedures:

– Audit of the existence of the transfer of control from December 21, 2018, by examination of the fulfillment of the closing conditions set out in the purchase agreement

– Audit of the existence of a company acquisition in accordance with IFRS 3

– Performing plausibility tests and critical assessment of the assumptions made in the purchase price allocation and the identification and valuation processes, including
  - Plausibility testing of the sales and results planned for the rail milling division, taking into account general and sector-specific market expectations
  - Assessments of whether the acquired assets and liabilities meet the IFRS 3 recognition criteria
  - Assessment of the appropriateness of the valuation methodology and its application in the valuation model
  - Assessment of the significant valuation inputs such as the cost of capital, diminution rates and licensing rates, using external sources

– Audit of the arithmetical accuracy of the fair value models used to determine the fair values

– Assessment of the competence, abilities and objectivity of the third-party evaluator employed by Vossloh AG

– Evaluation of the deferred taxes calculated as a result of the revaluations and the associated differences in the carrying value of the assets and liabilities

– Examination of the accounting entries recorded for the transaction in the consolidated financial statements including the associated disclosures made in the notes

OUR CONCLUSIONS

The acquired assets and liabilities are appropriately identified and valued and comply with the applicable accounting and measurement policies. The significant assumptions and parameters used are appropriate and the presentation in the notes is appropriate.

Recognition of sales revenues in the correct reporting periods

We refer to Note (1) in the notes to the consolidated financial statements for details of the accounting and measurement policies applied.

THE FINANCIAL STATEMENT RISK

Sales revenues totaled €865.0 million in the 2018 fiscal year (previous year: €918.3 million).

Vossloh recognizes sales when they fulfill a service obligation to a customer by transferring a promised asset. An asset is deemed transferred when the customer obtains the power of disposal over this asset. In accordance with the transfer of the power of disposal, IFRS 15 stipulates that sales revenues must be recorded at the amount to which the company is entitled in accordance with expectations, either in relation to a point in time or a period of time. On the basis of the fulfillment of the following indicators, Vossloh has determined that the service obligations are essentially (approx. 90 percent of sales revenues) fulfilled as of the time of transfer of the products to the customer and the sales recognition thus takes place in relation to a point in time:

– Vossloh has a current claim to the receipt of payment for the asset,

– The customer holds a right of ownership to the asset,

– Vossloh has transferred the physical possession of the asset,

– The significant risks and opportunities associated with ownership of the asset have been transferred to the customer,

– The customer has accepted the asset.

As a rule, the contract parties agree to the transfer of risks and, as a result, also the revenue recognition date, by the use of Incoterms. These govern when the significant risks and opportunities are transferred to the customer.

Recognition of sales revenues in relation to a time period (approx. 10 percent of sales revenues) is carried out in accordance with the provisions of IFRS 15.35(c) at the Vossloh Group in terms of performance.

As sales revenues are an important key performance indicator for the Group and given the direct and indirect importance of sales revenues for other primary key performance indicators used by the Group (for example EBIT), we have, in performing our audit, identified the correct appropriation of revenue between reporting periods as a significant error risk.

The Group has a focus on markets in China, North America, Western Europe and Russia. Worldwide deliveries of rail fastening systems and switch systems are made by the Group’s companies based on a number of different Incoterms. Vossloh AG has an accounting guideline that describes the approach to be followed by Group companies when recognizing sales revenues. The different Incoterms, various transport routes and transport times result in the risk to the financial statements that sales revenues recognized in relation to a certain point in time may inadvertently be incorrectly allocated between reporting periods at the balance sheet date.

OUR AUDIT APPROACH

We evaluated the Group-wide provisions of the accounting guideline and the corresponding adjustments to this which have become necessary as a consequence of the application of IFRS 15 for the first time. In order to audit the correct appropriation of revenue between reporting periods, we have made assessments of the internal control covering order acceptance, delivery of goods and invoicing in order to determine whether they are appropriately designed and effective. We are satisfied concerning the appropriateness of the correct appropriation (cut-off) at the balance sheet date. For this purpose, we examined documentation for the companies of relevance to the consolidated financial statements – particularly invoices, delivery documents and payment receipts – based on sales procedures selected on a risk-oriented basis which were selected for a specified period of time around the balance sheet date. The correct allocation between periods was verified by reference to the transfer of risk as defined in the Incoterms, using the invoices selected in this way together with evidence of external delivery. In addition, we obtained third-party confirmations from debtors or – as an alternative audit procedure – verified the selected invoices against delivery documents and payment receipts.

OUR CONCLUSIONS

Vossloh AG has an appropriate accounting policy guideline governing the process of recognizing sales revenues, which is applied by the companies in the Group. The process used by Vossloh AG to recognize sales revenues in the correct periods is appropriate.

Other information

The legal representatives are responsible for the other information. The other information consists of the following:

– The nonfinancial Group statement, the Declaration on Corporate Governance, and

– the other components of the annual report, with the exception of the audited consolidated financial statements, the Group management report and our auditor's report.

Our opinions on the consolidated financial statements and on the Group management report do not cover the other information, and we consequently do not express an opinion or provide any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

– is materially inconsistent with the consolidated financial statements, with the Group management report or our knowledge obtained in the audit or

– appears to be otherwise materially misstated.

Responsibilities of the legal representatives and the Supervisory Board for the consolidated financial statements and the Group management report

The legal representatives are responsible for the preparation of the consolidated financial statements which are in compliance, in all material aspects, with IFRS as adopted by the EU and the supplementary requirements of German commercial law pursuant to Section 315e (1) HGB, and which give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, the legal representatives are responsible for such internal control as it determines necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether intentional or otherwise.

In preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

The legal representatives are responsible for preparation of the Group management's 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 legal representatives are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a Group management report that is in accordance with the applicable German legal requirements and to be able to provide sufficient appropriate evidence for the assertions in the Group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the Group management report.

Auditor’s responsibilities for the audit of the consolidated financial statements and the Group management report

Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement – whether intentional or otherwise – and whether the Group management report as a whole provides an appropriate view of the Group’s position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor’s report that includes our opinions on the consolidated financial statements and on the Group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and EU-APrVO and German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors (IDW) will always detect a material misstatement when it exists. 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.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

– Identify and assess the risks of material misstatement of the consolidated financial statements and of the Group management report – whether intentional or otherwise – and design and perform audit procedures in response to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one 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 (systems) relevant to the audit of the Group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

– Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the legal representatives.

– Conclude on the appropriateness of the legal representatives’ use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor’s report to the related disclosures in the consolidated financial statements and in the Group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

– Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRS as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and full IFRS.

– Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the Group management report. We are responsible for the direction, supervision and performance of the audit of the consolidated financial statements. We have sole responsibility for our opinions.

– Evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with law, and the view of the Group’s position it provides.

– Perform audit procedures on the prospective information presented by the legal representatives in the Group management report. On the basis of sufficient appropriate audit evidence, we evaluate, in particular, the significant assumptions used by the legal representatives as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information or on the assumptions used as a basis. There is a substantial unavoidable risk that future results will differ substantially from the disclosures regarding future events.

We communicate with those responsible for supervision regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those responsible for supervision 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 related safeguards.

Of the matters communicated with those responsible for supervision, we determine the matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Further information pursuant to Article 10 EU-APrVO

We were elected as the Group's auditor by the annual general meeting on May 09, 2018. We were commissioned by the Supervisory Board on November 15, 2018. We have been the Group auditor of Vossloh AG without interruption since the 2015 fiscal year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 EU-APrVO (long-form audit report).

Responsible auditor

The auditor responsible for the audit is Michael Jessen.

Düsseldorf, 28 February 2019

KPMG AG
Wirtschaftsprüfungsgesellschaft

Rodemer	Jessen
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

Financial calendar 2019/2020

Financial calendar 2019

Annual General Meeting	May 22, 2019
Publication of interim report/interim financial statements	
as of March 31	April 25, 2019
as of June 30	July 25, 2019
as of September 30	October 24, 2019

For further dates, go to www.vossloh.com

Financial calendar 2020

Publication of 2019 financial data	March 2020
Press conference	March 2020
Investor and analyst conference	March 2020
Annual General Meeting	May 2020

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Information on the Vossloh share

ISIN	DE0007667107
Trading locations	Xetra, Düsseldorf, Frankfurt, Berlin-Bremen, Hanover, Hamburg, Stuttgart, Munich
Index	SDAX
Number of shares outstanding as of 12/31/2018	15,967,437
Annual average number of shares outstanding	15,967,437
Share price (12/31/2018)	42.45 €
2018 high/low price	50.40 €/36.55 €
Reuters code	VOSG.DE
Bloomberg code	VOS GR
Dividend proposed	€ 1.00

Glossary

Capital employed	Working capital plus fixed assets
Cash pooling	Balance transfer procedure for pooling liquidity
Class I operators	Class I operators are the major freight rail companies in North America
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
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 – cash and cash equivalents – short-term securities
Operating lease	Type of lease contract that requires the lessor to account for the leased asset
Personnel expenses per employee	Personnel expenses/ annual average headcount
Return on capital employed	EBIT/average capital employed
Return on capital	See return on 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*

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Income statement data											
Sales revenues	€ mill.	865.0	918.3	822.5	952.9	1,100.8	1,300.7	1,243.0	1,197.2	1,351.3	1,173.7
EBIT	€ mill.	54.2	70.3	57.5	42.3	(183.4)	52.7	97.5	97.2	152.1	137.9
Net interest result	€ mill.	(13.4)	(12.5)	(10.6)	(11.1)	(24.2)	(21.4)	(21.4)	(12.3)	(11.7)	(9.4)
EBT	€ mill.	40.8	57.8	46.9	31.2	(207.6)	31.3	76.1	84.9	140.4	128.5
Net income	€ mill.	22.7	0.3	10.1	77.8	(205.7)	23.6	64.8	60.5	111.1	96.7
Earnings per share	€	1.14	(0.50)	0.22	5.42	(16.46)	1.25	4.94	4.32	7.32	6.57
Return on capital employed[1]	%	6.8	8.9	8.8	5.8	(21.7)	5.9	11.5	12.0	17.2	20.5
Value added	€ mill.	(5.8)	11.1	(1.5)	(31.1)	(267.8)	(22.8)	13.0	16.1	54.8	63.7
Balance sheet data											
Fixed assets	€ mill.	646.1	568.7	467.8	486.7	548.8	714.5	662.7	625.6	590.7	458.2
Investments[2]	€ mill.	60.5	39.5	30.3	34.2	50.7	64.4	61.1	65.6	57.9	41.9
Depreciation[2]	€ mill.	35.5	33.6	31.5	35.7	123.2	40.7	41.4	38.2	39.5	24.6
Closing working capital[3]	€ mill.	216.0	190.0	159.2	213.8	226.5	94.5	166.0	200.3	258.0	245.1
Closing capital employed	€ mill.	862.0	758.7	627.0	700.5	775.3	809.0	828.7	825.9	848.6	703.2
Equity	€ mill.	523.3	532.4	550.8	428.7	349.6	481.1	505.7	480.1	580.0	492.6
thereof: Noncontrolling interests	€ mill.	10.8	15.0	18.0	17.0	19.7	18.6	15.9	14.0	27.9	20.4
Net financial debt[4]	€ mill.	307.3	207.7	85.0	218.6	283.0	204.1	200.8	238.8	136.6	70.2
Total assets	€ mill.	1,265.4	1,252.9	1,367.2	1,389.9	1,604.4	1,562.4	1,500.0	1,495.9	1,405.8	1,338.4
Equity ratio	%	41.4	42.5	40.3	30.8	21.8	30.8	33.7	32.3	41.3	36.8
Cash flow statement data											
Cash flow from operating activities	€ mill.	37.6	24.5	65.8	107.8	(42.2)	130.5	162.6	138.5	139.1	44.9
Cash flow from investing activities	€ mill.	(95.0)	(124.2)	(43.2)	(11.6)	(58.3)	(75.4)	(72.9)	(90.6)	(151.1)	(52.3)
Cash flow from financing activities	€ mill.	10.9	20.7	79.3	(77.0)	103.7	(63.1)	(109.9)	(47.3)	(71.8)	(84.1)
Net cash inflow/outflow	€ mill.	(46.5)	(79.0)	101.9	19.2	3.2	(8.0)	(20.2)	0.6	(83.8)	(91.5)
Employees											
Annual average headcount	No.	3,773	3,934	3,682	4,069	4,883	5.247	5,078	5,000	4,984	4,717
thereof: In Germany	No.	883	854	840	1,244	1,853	1,759	1,756	1,747	1,667	1,312
Abroad	No.	2,890	3,080	2,842	2,825	3.,030	3,487	3,322	3,253	3,317	3,405
Personnel expenses	€ mill.	214.9	214.8	197.1	218.1	283.0	284.0	271.0	259.0	249.5	229.6
Personnel expenses per employee	€ thous.	57.0	54.6	53.5	53.6	58.0	54.1	53.4	51.8	50.1	48.7

Ten-year overview of Vossloh AG

		2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Capital stock	€ mill.	45.3	45.3	45.3	37.8	37.8	37.8	37.8	37.8	37.8	37.8
Dividends per share	€	1.00[5]	1.00	0.00	0.00	0.00	0.50	2.00	2.50	2.50	2.00
Share price as of December 31	€	42.45	46.80	59.61	57.74	53.50	72.50	74.47	74.07	95.50	69.52
Market capitalization as of December 31	€ mill.	677.8	747.3	951.8	793.1	712.9	870.3	893.5	888.3	1,272.6	926.0

*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 From 2009, based on average capital employed

2 Excluding noncurrent financial instruments, depreciation/amortization plus impairment losses and write-downs

3 From 2009, the other current provisions, being noninterest, are also deducted

4 In brackets: net financial assets

5 Subject to the approval of the Annual General Meeting

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