

Consolidated Management Report 2016

Economic Environment

Global growth rates again fell short of expectations in the year 2016.

As in the past years, the global growth rates again fell short of expectations in 2016 and the International Monetary Fund (IMF) reduced its growth projections in the course of the year. While at the beginning of the year global economic growth of 3.4% was forecast for the year 2016, it only amounted to 3.1% according to preliminary estimates. The International Monetary Fund considers the slowdown of global business activities, which is attributable to several factors, the main reason of this development. For example, higher volatility in the financial markets, slower growth in the advanced economies, the recession in important emerging countries such as Russia and Brazil as well as slower growth in China dampen the global upswing. Moreover, political uncertainties and growing nationalism in some European countries and in the US pose a considerable threat to global economic stability. Due to the planned withdrawal of the United Kingdom from the European Union following the referendum held in June and the related economic and political uncertainties, negative effects on economic growth in Europe are expected. These effects will in turn depend on how smoothly the withdrawal of the United Kingdom from the European Union proceeds and to what degree consumer confidence and the investment climate are affected in the transition phase. In this context, the International Monetary Fund forecasts the greatest decline in growth primarily for the United Kingdom itself and for Germany. Unresolved legacy issues of the banking sector represent another risk to growth within the euro area. Especially Italian banks, with non-performing loans of roughly 350 billion euros, are considered to be at risk. The IMF has therefore been urging Italy to reorganize its financial sector as fast as possible. With respect to the recession-shaken economies of Russia and Brazil, the experts of the International Monetary Fund see a beginning recovery based on the macroeconomic data published in the past months and expect these countries to return to growth in the year 2017.

The economic development in the euro area picked up in the fourth quarter of 2016. The Markit Purchasing Manager Index for the euro area was at 54.4 points in December, thus recording the highest level in more than five years. Since July 2013 the index has continuously exceeded the growth-signaling 50-point mark. The unemployment rate was also reduced from 10.4% in the previous year to 9.8% in the past financial year, thus falling below the 10% mark for the first time in five years. Although unemployment continued to decline, there are enormous differences between the individual countries. While Germany recorded the lowest unemployment rate in the euro area at 4.1%, above all the southern European countries are still struggling with high unemployment.

In Europe, the economy benefited from the European Central Bank's monetary easing policy.

In Europe, the European Central Bank (ECB) continues to adhere to its monetary easing policy and adopted a package of measures to boost the growth inhibiting weak inflation in March. For the first time ever, the base rate was lowered to 0% and the deposit rate to (0.4)%. Consequently, banks that deposit money with the ECB overnight have to pay a higher penalty rate for the high security. Among other things, this is intended to encourage banks to expand lending rather than hoarding surplus liquidity. In addition, the monthly bond purchases were increased from € 60 billion to € 80 billion and extended to corporate bonds in the investment grade sector. In December, the ECB extended the bond purchasing program, which had originally been scheduled for one year, until the end of the year 2017, but reduced the monthly purchasing volume back to € 60 billion. While the base rate in Europe should stay at a very low level for a longer period of time, the US Federal Reserve raised the base rate by 0.25 percentage points for the first time in a year at its meeting in December. Consequently, the base rate is now in the range from 0.5% to 0.75%.

Despite strong consumer confidence, which is supported by a solid labor market – in December the unemployment rate was as low as 4.7% –, the US economy lost momentum in the first half of the year. The experts of the International Monetary Fund consider weak investments, especially in the energy sector, the effects of the strong dollar on investments in export-oriented industries and volatilities in the financial markets the main constraints on growth. There is also uncertainty regarding the future policies of President Donald Trump, who was elected in November.

Weak investments in the energy sector and the effects of the strong dollar burden the economy in the US.

The global stock markets recorded the weakest start to the year since 2009 as a result of the re-emerging concerns regarding economic growth in China and other emerging markets and the related fear of a global recession. In addition, investors were concerned about a further decline in the oil price and many metal and basic material prices at the beginning of the year, especially with a view to the credit quality in the bank balance sheets. Following positive economic data, many raw material prices and the important stock indices in Europe and the US saw a significant recovery in the second half of the year. The Dow Jones Industrial Average Index closed just under the 20,000-point mark at the end of the year, thus reaching a new all-time high. As inflation is expected to rise, bond yields also increased accordingly.

The International Monetary Fund forecasts economic growth of 3.4% for the year 2017.

In its forecast published in January 2017, the International Monetary fund expects global economic growth of 3.4% in the current year after 3.1% in the year 2016.

GDP growth in %	2014	2015	2016	2017e	2018e	IWF Outlook
World	3.4	3.2	3.1	3.4	3.6	
Developed economies	1.8	2.1	1.6	1.9	2.0	
USA	2.4	2.6	1.6	2.3	2.5	
Eurozone	0.9	2.0	1.7	1.6	1.6	
Germany	1.6	1.5	1.7	1.5	1.5	
France	0.2	1.3	1.3	1.3	1.6	
Italy	-0.4	0.7	0.9	0.7	0.8	
Spain	1.4	3.2	3.2	2.3	2.1	
Emerging markets	4.6	4.1	4.1	4.5	4.8	
Brazil	0.1	-3.8	-3.5	0.2	1.5	
Russia	0.6	-3.7	-0.6	1.1	1.2	
India	7.3	7.6	6.6	7.2	7.7	
China	7.3	6.9	6.7	6.5	6.0	
Middle East / North Africa	2.8	2.5	3.8	3.1	3.5	
Mexico	2.3	2.6	2.2	1.7	2.0	

Earnings Position

Statement of profit or loss

	2016	2015	Change
Sales volume (thousand tons)	1,979	1,892	4.6%
Steel Division	1,209	1,152	4.9%
Industrial Division	428	443	(3.4)%
Raw Materials Division	342	297	15.2%
in € million			
Revenue	1,651.2	1,752.5	(5.8)%
Steel Division	1,071.4	1,099.9	(2.6)%
Industrial Division	538.6	614.6	(12.4)%
Raw Materials Division			
external revenue	41.2	38.0	8.4%
internal revenue	224.8	234.6	(4.2)%
EBITDA	189.1	140.0	35.1%
EBITDA margin	11.5%	8.0%	3.5pp
Operating EBIT¹⁾	123.2	124.1	(0.7)%
Steel Division	76.2	64.3	18.5%
Industrial Division	44.5	65.0	(31.5)%
Raw Materials Division	2.5	(5.2)	148.1%
Operating EBIT margin	7.5%	7.1%	0.4pp
Steel Division	7.1%	5.8%	1.3pp
Industrial Division	8.3%	10.6%	(2.3)pp
Raw Materials Division ²⁾	0.9%	(1.9)%	2.8pp
EBIT	116.1	37.5	209.6%
Steel Division	76.3	63.4	20.3%
Industrial Division	32.0	58.9	(45.7)%
Raw Materials Division	7.8	(84.8)	109.2%
EBIT margin	7.0%	2.1%	4.9pp
Steel Division	7.1%	5.8%	1.3pp
Industrial Division	5.9%	9.6%	(3.7)pp
Raw Materials Division ²⁾	2.9%	(31.1)%	34.0pp
Net finance costs	(21.2)	(19.3)	(9.8)%
Share of profit of joint ventures	10.9	9.2	18.5%
Profit before income tax	105.8	27.4	286.1%
Income tax	(29.9)	(9.8)	(205.1)%
Income tax in %	28.3%	35.8%	(7.5)pp
Profit after income tax	75.9	17.6	331.3%
Earnings per share in € (basic and diluted)	1.86	0.40	

1) EBIT before expenses from derivatives from supply contracts, impairment and restructuring effects

2) based on external and internal revenue

Business Development

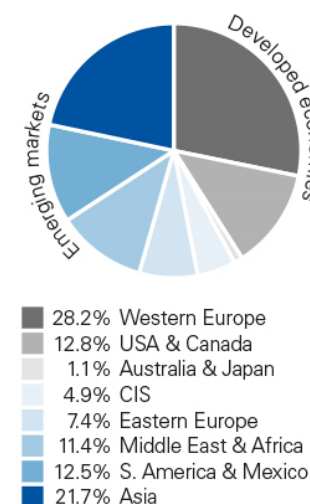
The RHI Group's sales volume increased from roughly 1,892,000 tons in the previous year to 1,979,000 tons in the past financial year. This increase is among other things due to stepping up the sale of raw dolomite in Italy, which makes a large contribution in terms of volume. However, due to the low price per ton, the contribution in terms of value is minor. Moreover, the Steel Division significantly expanded business with basic mixes, the most important segment in terms of volume. In addition to a major contract won in Ukraine, the improved utilization of electric steel plants also contributed to this development. Revenue of the RHI Group totaled € 1,651.2 million in the past financial year compared with € 1,752.5 million in the year 2015. The decline in revenue in the Steel Division results from a weaker business development in South America, Europe and China, and from the extension of the product portfolio by lower-performance products. Although these products support the development of sales volume and margins, they lead to lower revenues due to the lower price level. The decrease in revenue in the Industrial Division results primarily from lower project deliveries in the cement/lime, nonferrous metals, and environment, energy, chemicals business units.

The operating EBIT amounted to € 123.2 million in the past financial year compared with € 124.1 million in the previous year and includes external costs of roughly € 12 million related to the planned combination of RHI and Magnesita. These costs largely consisted of legal advisory costs and the fee of the accompanying investment bank. Adjusted for these expenses, the operating EBIT amounted to roughly € 135 million in the past financial year. This positive operating business development is primarily attributable to the positive earnings situation in the Steel Division in nearly all regions. Moreover, the operating EBIT of the Raw Materials Division improved as a result of good utilization at the Austrian raw material plants, which predominantly produce basic mixes for the steel industry, especially for the use in electric arc furnaces. In contrast, the operating EBIT of the Industrial Division was lower than in the previous year due to a decline in revenue.

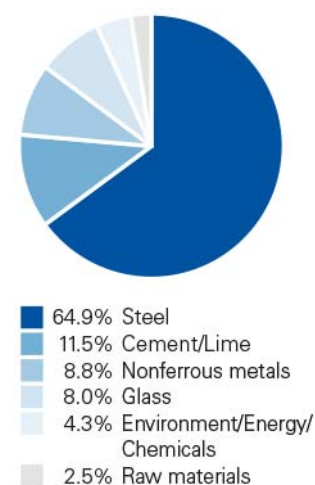
EBIT amounted to € 116.1 million in the past financial year and includes a full impairment of the assets of the San Vito plant in Italy and the Russian Podolsk plant totaling € 8.0 million. Both plants produce fused cast refractories for the glass industry. In addition, negative effects on earnings of € 4.6 million from the deconsolidation of the US subsidiary RHI Monofrax, LLC following the sale to the German Private Equity Fonds Callista and € 4.8 million related to the social plan for personnel cuts and the reorganization of the product portfolio at the Norwegian site in Porsgrunn are included. In contrast, a positive effect of € 10.1 million resulted from the measurement of the power supply contract in Norway. Moreover, a slightly positive income of € 0.2 million resulted from adjustments to the provisions made for the plants in Duisburg, Germany, and Clydebank, Scotland, which were closed in previous years.

Net finance costs totaled € (21.2) million in the year 2016. Profit from joint ventures results from the 50% share held in MAGNIFIN Magnesiaprodukte GmbH & Co KG, which predominantly produces flame retardants. The tax rate amounted to 28.3% in 2016. Profit after income tax amounted to € 75.9 million and earnings per share to € 1.86.

Revenue by region



Revenue by industry



Steel Division

Global crude production, at around 1.63 billion tons, is roughly at the level of the year 2013.

After a decline in the previous year, global steel production rose slightly by 0.8% in the past financial year. At about 1.63 billion tons, it is roughly at the level of the year 2013. While the strong growth of steel production until 2013 was primarily driven by the rapid capacity expansion in China and a positive development in the emerging markets, this development has stagnated in the past years at the level then reached. The increase compared with the previous year is primarily attributable to higher output volumes by Chinese and Indian producers. Despite a gradual economic recovery in Europe, steel production within the European Union decreased by 2.3% due to the closure of a steel plant in the United Kingdom. The development in the US does not reflect the progressing economic recovery.

After the slump in the first quarter of 2016, global steel production recovered in the course of the year as prices picked up significantly after having fallen dramatically in the year 2015, for example by roughly 40% for hot-rolled products. Especially in China it turned out that capacities which had allegedly been shut down are quickly restarted as soon as a certain price level has been reached. This was additionally supported by numerous stimulus measures taken by the Chinese government as well as steel exports of roughly 110 million tons, thus at the record level of the previous year. Likewise, important raw materials for steel production, such as iron ore and especially coking coal, saw a significant price increase. Since the price development of steel scrap was significantly less dynamic, the competitiveness of electric steel plants improved significantly compared with integrated steel plants. This is important for RHI, especially since refractory consumption is higher in electric arc furnaces than in basic oxygen converters. The volume sold thus amounted to roughly 420,000 tons in the electric arc furnace segment in the financial year 2016, compared with roughly 105,000 tons in the basic oxygen converter segment.

Steel production	in million tons	2011	2012	2013	2014	2015	2016
World		1,538	1,560	1,650	1,670	1,615	1,629
China		702	731	822	823	799	809
World ex China		836	829	828	847	816	820
Developed economies		368	362	361	364	345	342
Emerging Markets		1,170	1,198	1,289	1,306	1,270	1,287
<u>Regions</u>							
Africa & Middle East		39	40	43	45	43	45
European Union		178	169	166	169	166	162
Other European countries		39	40	39	38	36	38
CIS		113	111	108	106	102	102
North America		119	122	119	121	111	111
South America		48	46	46	45	44	39
Asia		1,002	1,032	1,129	1,146	1,113	1,132

Source: World Steel Association (January 2017)

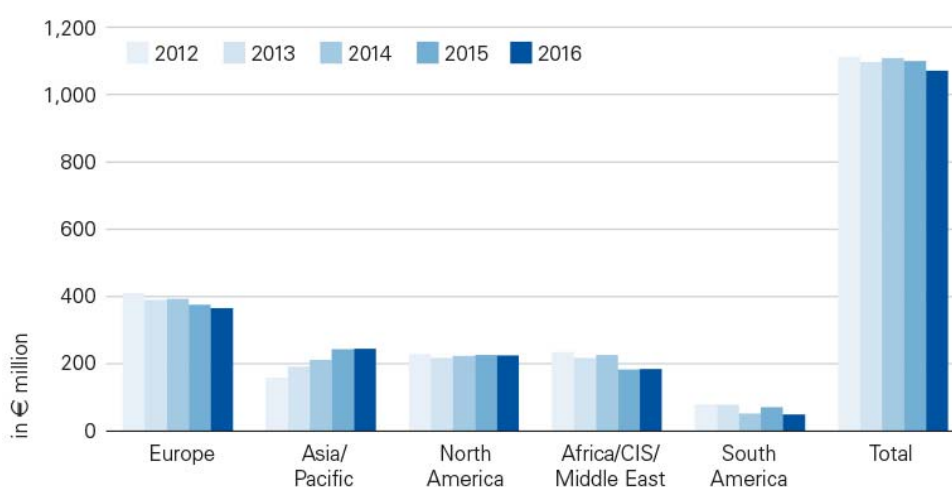
The Steel Division's sales volume rose by 4.9% from roughly 1,152,000 tons in the previous year to roughly 1,209,000 tons in the past financial year. This is primarily attributable to a significant expansion of business in the basic mixes segment, the most important segment in terms of volume. In addition to a major contract in the Ukraine, the improved utilization of electric steel plants also contributed to this development. Revenue declined by 2.6% from € 1,099.9 million in the previous year to € 1,071.4 million despite the increase in sales volume, among other things due to product mix effects. Also a weaker business development in South America, Europe and China as well as the extension of the product portfolio by lower-performance products contributed to this development. Although these products support the development of sales volume and margins, they lead to lower revenue because of the lower price level. The operating EBIT improved from € 64.3 million in the previous year to € 76.2 million in the past financial year due to improved utilization of the production capacities and a positive margin development in nearly all regions with the exception of South America. It includes external costs of roughly € 8 million for the financial year 2016, which are related to the planned combination of RHI und Magnesita. EBIT amounted to € 76.3 million in 2016 and includes income totaling € 0.1 million from the adjustment of provisions for the plants in Duisburg, Germany, and Clydebank, Scotland, which were closed in previous years.

The extension of the product portfolio by lower-performance products supported the development of sales volume and margins.

in € million	2016	2015	Change
Revenue	1,071.4	1,099.9	(2.6)%
Operating EBIT	76.2	64.3	18.5%
Operating EBIT margin	7.1%	5.8%	1.3pp
EBIT	76.3	63.4	20.3%
EBIT margin	7.1%	5.8%	1.3pp

Segment indicators

The development of revenue in the past five years is shown below:



Development of revenue

The decline in steel production in Europe is among other things due to the closure of a steel plant in the United Kingdom.

In the European Union, more trade defense measures against steel products imported under unfair conditions are in place than ever before.

Roughly 25% of the revenue in Europe is generated by full line supply and outsourcing contracts.

Europe

Steel production within the European Union decreased by 2.3% compared with the previous year and amounted to roughly 162 million tons. The decline in output volume took place on a broad scale. Especially the United Kingdom saw a massive drop of roughly 30% or roughly 3 million tons following the closure of the steel plant in Redcar. The volume produced in Spain, Germany and France also declined, while steel production in Italy recovered slightly from the significant reduction in the previous year. The automotive industry continues to be one of the main drivers of demand. According to the European Automobile Manufacturers' Association (ACEA), the number of new registrations of passenger vehicles in the European Union rose by 6.8% compared with the year 2015 to more than 14.6 million, thus recording significant growth for the third consecutive year. Likewise, the number of registrations of commercial vehicles also increased significantly compared with the previous year, up 11.6% to more than 2.3 million. This positive trend indicates that consumer confidence remained robust despite economic and political uncertainties in the wake of the United Kingdom's planned withdrawal from the European Union and the Italian constitutional referendum.

In response to the substantial increase in steel imports from China in the past years due to massive local excess capacities, the European Commission adopted duties ranging from 13.8% to 26.2% on cold-rolled flat steel products of Chinese and Russian producers in August 2016. Likewise, the European Commission adopted temporary anti-dumping duties ranging from 65.1% to 73.7% on imports of heavy plates and duties ranging from 13.2% to 22.6% on imports of hot-rolled flat steel from China in early October 2016. As a result, more trade defense measures against steel products imported under unfair conditions than ever before are in place in the European Union. In total, they comprise 37 anti-dumping and anti-subsidy measures, of which 15 affect goods originating in China. In addition, an investigation was initiated at the request of the European industry association Eurofer in mid-December regarding suspected dumping by Chinese manufacturers of hot dip galvanized steel sheet. If measures were introduced, the entire flat steel segment would be covered. In this context, Jean-Claude Juncker, President of the Commission, had already emphasized at the bilateral summit of the European Union and China held in mid-July that the European steel industry would be defended against cheap imports from China. In addition, he linked the reduction of excess capacity in the steel sector, which is roughly twice as high as steel production within the European Union, with the issue of granting the status of a market economy based on the rules of the World Trade Organization. This status would have an impact on the method of calculating the dumping margins.

For a key customer in Europe, the implementation of a new converter tapping system was realized to the customer's complete satisfaction. By replacing the old system, the performance was increased by more than 70% to 120 heats. The taphole design is optimally suited to the slag prevention system for converters with the highest standards in terms of service life. The market introduction of the latest generation of ladle slide gates started in the previous year was successfully continued in the past financial year, achieving important references with renowned key customers. A fully gas-tight version was developed especially for the profitable niche application in foundries and after a successful first reference is now also used in test operations by other customers.

The region's contribution to revenue in the past financial year decreased by roughly 2% compared with the previous year. This is, among other things, attributable to the decline in steel production. While a decrease in revenue was recorded in France, Germany and the United Kingdom, business was expanded significantly in Italy and Belgium as a result of higher deliveries. RHI expects a slight increase in revenue and earnings in the financial year 2017 as the economic recovery is slowly progressing in Europe.

The region's contribution to revenue decreased, among other things due to the decline in steel production in Europe.

Asia/Pacific

Steel production in the Asia/Pacific region rose by 1.6% in the past financial year compared with the previous year. India in particular recorded a significant increase by 7.4%. While steel production in China still showed a decline in the first half of 2016, it recovered in the second half of the year as a result of increasing steel prices and the economic measures taken by the government. However, high excess capacity in the basic industries and the resulting significant reduction of investment activities continued to burden the market environment. The restructuring initiated by the Chinese government provides for cutbacks in steel production capacities by 100 to 150 million tons. At the G20 summit, which was held in Hangzhou, China, in early September, the establishment of a world forum on steel capacity was therefore adopted with the aim to intensify the exchange of information and cooperation on a global level and to create a mechanism to monitor excess capacities. These excess capacities, which according to experts amount to 300 million tons, lead to a lower profitability level within the Chinese steel industry.

Steel production in China recovered in the second half of the year due to increasing steel prices and economic measures taken by the government.

In late September, the Chinese authorities approved the merger of the two state-controlled companies Baosteel Group and Wuhan Iron and Steel Group due to the cost pressure in the domestic market. The profit of the Baosteel Group had dropped by more than 80% in the financial year 2015 to roughly one billion yuan, while Wuhan Iron and Steel Group reported a loss of roughly 7.5 billion yuan after still recording a profit of roughly 1.3 billion yuan in the financial year 2014. Based on data of the year 2015, the joint group called Baowu Steel Group will produce roughly 61 million tons of steel annually and will thus be the world's second largest steel producer after ArcelorMittal, which produced roughly 97 million tons of steel in the previous year. The Chinese government plans to further consolidate the steel sector by the year 2025 so that the ten largest producers will account for roughly 60% of the local steel production – up from currently roughly 34%.

The region's contribution to revenue increased by roughly 1% in the past financial year. The significant drop in revenue in China was compensated especially by an expansion of business in Vietnam, Bangladesh and Indonesia. The region's contribution to earnings was increased further as a result of positive regional mix effects as well as adapted lining concepts. In India, RHI did not quite match the strong growth rates of the past years. This is primarily attributable to a weaker first half in the year 2016. Among other things, high steel imports from China burdened the market environment here. With revenue of roughly € 144 million, India is still by far the most important individual market for the Steel Division, ahead of the US and Mexico. The RHI Group's Indian subsidiary Orient Refractories Ltd. succeeded in winning the first comprehensive service contract within the scope of which a number of RHI products will be applied. Moreover, RHI won an outsourcing contract for the refractory management of the electric arc furnaces of India's largest stainless steel producer. It is the first con-

With revenue of roughly € 144 million, India is by far the most important individual market for the Steel Division, ahead of the US and Mexico.

tract of its kind for a refractory partnership in India's stainless steel industry. For the year 2017, RHI expects a slight increase in the region's contribution to revenue and earnings at the good level of last year.

North America

Steel production in North America totaled roughly 111 million tons in the past financial year and thus remained largely stable compared with the previous year. While demand by the automotive and construction industry was robust, business with the oil and gas industry continued its weak development. As a result, the number of active oil drilling rigs declined continuously after an all-time high of roughly 1,600 in October 2014 and only amounted to roughly 330 at mid-year 2016. This is equivalent to the level of 2009 and explains the plummeting demand for pipes, drill heads and other steel equipment for oil production. However, as the oil price increased in the course of the second half of the year, the number of active oil drilling rigs rose sharply and amounted to roughly 530 at the end of the year 2016. This should entail a gradual recovery of the demand for steel by the oil and gas industry.

The decline of business in the ladle segment in the US was nearly compensated by a positive development in the Mexican market.

The region's contribution to revenue decreased slightly in the past financial year and was roughly 1% lower than in the previous year. The decline of business in the ladle segment in the US was nearly compensated by a positive development in the Mexican market. RHI received significant orders for the electric arc furnace, the ladle and the vacuum degasser for a new steel plant in the south of the US, which started operations in December. Likewise, RHI was selected as the main supplier for a new electric steel plant in Oklahoma. RHI's business in the US is characterized by the volatile utilization of many steel producers' capacities and the related short order cycles. Consequently, short delivery times, flexible production and a high service level play a key role in the success of refractory producers. As RHI is lacking production capacities for linings products, this leads to high inventories. Due to the long lead time from European production consignment stocks are provided for customers. As a result of new approaches to optimize the supply chain, RHI managed to reduce inventories in North America by roughly 7% compared with the level at the end of 2015, which was among other things possible because of the excellent cross-departmental collaboration.

With the victory of Donald Trump in the US presidential election, the sentiment in the local steel industry improved considerably.

With the victory of Donald Trump in the US presidential election, the sentiment in the local steel industry has improved considerably. Manufacturers now hope to benefit from potential high investments in infrastructure, tax cuts and further protectionism. The US already has high anti-dumping duties in place, including duties on Chinese steel imports. For certain cold-rolled flat steel products they amount to roughly 266%. This could subsequently lead to a recommissioning of closed-down steel production capacities. RHI expects a slight increase in revenue for the financial year 2017 as a result of an increase in steel production.

Africa/CIS/Middle East

Steel production in Africa declined by 4.4% in the past financial year compared with the previous year. Despite the great economic potential, steel production is concentrated in two countries, Egypt and South Africa, which together account for roughly 85% of the steel output on the African continent. While production decreased by roughly 9% in Egypt and by roughly 4% in South Africa, it rose by more than 50% in Libya after having plummeted in the previous year. RHI benefited from this development among other things and increased this region's contribution to revenue by roughly 25%. In addition to the significant expansion of business in Libya, revenue also rose substantially in Egypt, especially in the electric arc furnace and ladle segments, after a weak previous year. For the year 2017, RHI expects revenue to exceed the level of the year 2016.

RHI benefited from a significant increase in steel production in Libya.

Steel production in the CIS region, at roughly 102 million tons in the past financial year, remained largely stable compared with the previous year. The decline in Belarus and Russia was compensated by the increase in output in Ukraine. The region's contribution to revenue declined slightly by roughly 1% compared with the previous year. While business in Russia, the most important market in the region, recorded a decline, revenue in Ukraine was significantly expanded after winning a major contract. Here, basic mixes of roughly 28,500 tons were delivered in the past financial year, which are used in open-hearth furnaces. The volume of this contract corresponds to an 18-kilometer-long line of trucks. In order to cope with this logistical challenge and to ensure timely delivery at the customer plant, RHI rented entire trains. For the year 2017, RHI expects a contribution to revenue at the level of the past financial year.

After winning a major contract in Ukraine, RHI delivered roughly 28,500 tons of basic mixes.

Steel production in the Middle East increased by 7.0% in the past financial year compared with the previous year. This was in particular due to the volume expansion in Iran after the trade embargo was lifted. The region's contribution to revenue was down 9% on the previous year primarily due to a weaker development in Saudi Arabia and the United Arab Emirates. Especially the linings business in the ladle and electric arc furnace segments recorded a significant drop in these countries. In contrast, revenue in Iran was expanded as a result of the increase in steel production. Another positive aspect was a new service life record of the eccentric bottom taphole realized with a customer in the Gulf States. Here, 308 heats were achieved without additional repairs as part of a trial series, thus surpassing competitors by more than 50%. This underlines the technical expertise of the RHI Group in the electric arc furnace segment. For the year 2017, RHI expects a contribution to revenue at the level of the past financial year.

The development of the linings business in the ladle and electric arc furnace segment in the Middle East was weak.

South America

In the past financial year, steel production in South America was down 10.6% on the previous year. The economies on the South American continent feel the impact of falling raw material prices, high inflation rates and low investment activities in many industries on economic growth. However, in the second half of the year, there were increasing signs of an economic recovery. For example, in July of the past financial year, the business climate in Brazil exceeded the 50-point mark, which signals an optimistic outlook, for the first time since March 2014, up from 36.8 points in April 2016. The International Monetary Fund also expects the economy in Brazil to recover in 2017. Accordingly, the gross domestic product is expected to grow slightly in the current year after a decline by 3.5% in the year 2016. Compared with the first half of the

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year, steel production in South America rose by 4.2% in the second half of 2016. This development was primarily attributable to the increase in Brazil, the most important steel market with a share of roughly 75%.

The region's contribution to revenue fell by roughly 31% compared with the previous year. This is primarily attributable to a weaker business development in Brazil as well as the loss of business in Venezuela as a result of the crisis-related decline of local steel production by roughly 60% year-on-year, and the closure of the steel plant in Trinidad and Tobago. In addition, the devaluation of South American currencies such as the Brazilian real against the euro burdened the competitiveness of the RHI Group. Fortunately at least the high inventories of the region were reduced in parallel to the decline in revenue. For the year 2017 RHI expects revenue at or slightly above the level of the past financial year.

Industrial Division

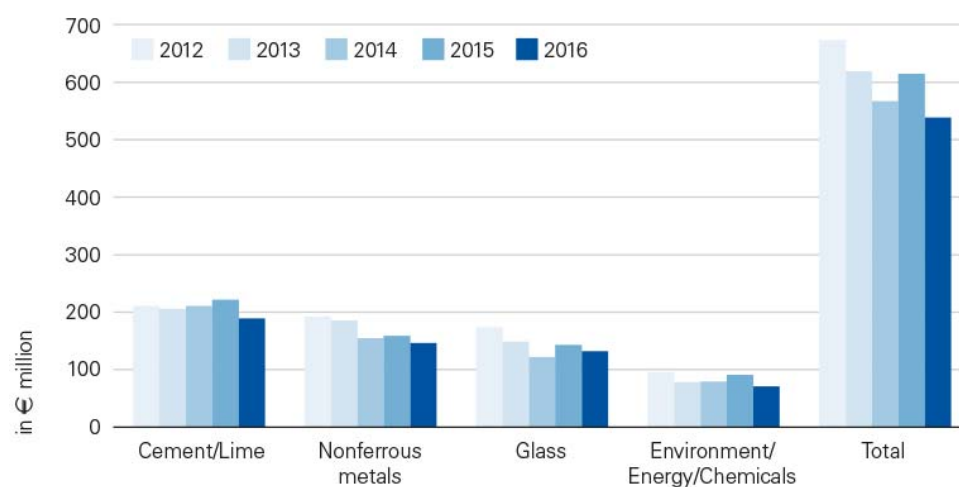
Sales volume of the Industrial Division fell by 3.4% from roughly 443,000 tons in the previous year to roughly 428,000 tons in the past financial year. This is attributable to a decrease in deliveries in the cement/lime, nonferrous metals and environment, energy, chemicals business units. Revenue dropped by 12.4%, from € 614.6 million in the previous year to € 538.6 million. Weaker demand in the cement/lime business unit resulted from lower deliveries for new construction projects and a declining building industry in China, while in the glass business unit the US subsidiary RHI Monofrax, LLC was sold in June of the past financial year. In the environment, energy, chemicals business unit, a major contract in the coal and petroleum coke gasifier segment in India delivered in the previous year was not compensated by several smaller contracts. In turn, the decline in revenue in the nonferrous metals business unit is based on weaker demand in the important copper and nickel segment. The operating EBIT dropped from € 65.0 million in 2015 to € 44.5 million in the past financial year due to lower deliveries and the resulting weaker utilization of production capacities. It includes external expenses of roughly € 4 million in the year 2016, which are related to the planned combination of RHI and Magnesita. EBIT amounted to € 32.0 million in the year 2016 and includes impairments of existing assets of € 8.0 million in the glass business unit and negative earnings effects of € 4.6 million from the deconsolidation of RHI Monofrax, LLC following the sale to a private equity fund. This is offset by positive effects of € 0.1 million resulting from the adjustment of provisions for the plant in Duisburg, Germany, which was closed down in 2014.

The operating EBIT decreased due to lower project deliveries and the resulting weaker utilization of production capacities.

in € million	2016	2015	Change
Revenue	538.6	614.6	(12.4)%
Operating EBIT	44.5	65.0	(31.5)%
Operating EBIT margin	8.3%	10.6%	(2.3)pp
EBIT	32.0	58.9	(45.7)%
EBIT margin	5.9%	9.6%	(3.7)pp

Segment indicators

The development of revenue in the past five years is shown below:



Development of revenue

Revenue declined by roughly 15% due to a weak development of new installation and repair business.

In the Middle East, persisting political uncertainties burdened the business development.

Prices of the relevant nonferrous metals marked new multi-year lows at the beginning of the year, but saw a substantial recovery in the course of the year.

Cement/Lime

The contribution to revenue of the cement/lime business unit in the past financial year was down roughly 15% on the previous year, with all regions except Africa recording a decline in business. While the significant decrease in revenue in Canada is attributable to deliveries for a new construction project in the previous year, business in China – with an annual production of roughly 2.5 billion tons the world's largest cement market – declined as a result of weaker construction activities. Likewise, the revenue generated in Indonesia dropped due to lower investments in infrastructure and housing projects and the resulting decrease in demand for cement. In general, weak global economic growth and regional excess capacities led to a lower repair volume for refractories producers in the cement industry. This had an impact on the demand for high-grade refractory materials. Moreover, the new installations business, which is important for the utilization of production capacities, only developed at a low level. RHI responded to this strained environment by offering a cost-optimized product line in China and continues to focus on service packages, which customers appreciate. Despite the initiatives taken, the contribution to earnings of the cement/lime business unit decreased significantly compared with the previous year.

In addition, political uncertainties in some regions had a negative effect on the development of the cement industry. The contribution to revenue of the Middle East region, for example, dropped significantly. In the CIS region, the massive devaluation of the Russian ruble additionally burdened the RHI Group's competitiveness compared with local suppliers. Despite the difficult political situation in some countries of North Africa, the African continent has become an important customer market in the past years. In Algeria, for example, the largest cement market in North Africa, the deliveries in straight-line business were significantly expanded. Moreover, a major contract for the refractory lining of a new plant was won in the past financial year and will be delivered in the current year. Business in Nigeria, Egypt and South Africa also recorded a positive development.

In Europe, cement production stabilized at the prior-year level and trended upwards. In Germany, for example, RHI was awarded a contract to supply refractories for a new cement line. For the financial year 2017, RHI expects an increase in revenue in the cement/lime business unit and significantly better earnings than in the previous year, among other things due to the contracts won for new construction projects and the related improved utilization of production capacities.

Nonferrous metals

At the beginning of the year, prices of the relevant nonferrous metals marked new multi-year lows as a result of the market turbulences caused by concerns regarding economic growth in China, but recovered in the course of the year. At the end of the year 2016, zinc recorded the largest year-on-year increase on the London Metal Exchange at roughly 60%, followed by tin at roughly 45%, copper at roughly 18%, nickel at roughly 14%, and lead and aluminum at roughly 12% each. However, these significant increases were not enough to get the weak new installation business back on track. As a result of massive price drops from mid-2014 to early 2016, uncertainty prevails regarding the further development of demand. Therefore, the prices of all of the above-mentioned metals with the exception of zinc and tin were below the average of the past ten years at the end of 2016, with nickel recording the biggest decline of roughly 47%, and lead the smallest with roughly 4%.

The contribution to revenue of the nonferrous metals business unit was down 8% on the previous year. Among other things, this is due to a major delivery in the ferrochrome segment in Kazakhstan in the previous year and a decline in deliveries in the important copper and nickel segment. Consequently, its share in the business unit's total revenue dropped from roughly 50% in the year 2015 to roughly 46% in the year 2016. In contrast, business in the lead and zinc segment was significantly expanded, especially in Mexico and in the Asian region. Business also saw a positive development in South America, where two major repairs in Bolivia and Peru were carried out and straight-line business with long-standing customers in Chile was expanded further. Winning a major contract in the aluminum sector in China was equally positive. Here, a total of seven furnaces, into which three purging systems were also integrated, were lined with refractory materials in the past financial year and an important part of the metallurgical process technology was supplied by RHI. In South Korea, RHI supplied two customers with all materials for major repairs of the respective key aggregates in the copper and zinc segments. Long-standing core customers again trusted in RHI materials. Consequently, RHI delivered large parts of the annual supply of repair materials for many different aggregates for example to customers in the copper segment in Canada, China, Germany, Zambia and Australia. In Kazakhstan, special materials for the repair of tapholes and ceilings in ferrochrome direct current furnaces were used. In addition, unplanned deliveries on short notice, for example in the ferrochrome and titanium oxide segments, supported the revenue development. In the latter, a considerable contract in Saudi Arabia contributed to an expansion of business in the Middle East. It turned out that in difficult situations operators trust in the engineering expertise and not least the logistical capabilities of RHI, which allow performing major contracts promptly, even under unfavorable conditions with little scope for planning.

Unplanned deliveries on short notice, for example in the ferrochrome and titanium oxide segments, supported the revenue development.

As a result of the increase in the relevant nonferrous metal prices, the economic situation of most major mining companies stabilized, providing scope for future projects. However, in the light of reduced growth in China, companies are likely to be hesitant to resume capacity expansions. Another obstacle in this context are the worldwide excess capacities, which were planned on the basis of substantially more optimistic demand scenarios and for which there is no sufficient market in the medium term. For the financial year 2017, RHI expects the contribution to revenue and earnings of this business unit to slightly exceed that of the previous year, among other things due to a 19% increase in the order level at year-end 2016 compared with the end of the year 2015.

As a result of the increase in the relevant nonferrous metal prices, the economic situation of most major mining companies stabilized.

The decline in revenue of the glass business unit is attributable to the sale of the US subsidiary RHI Monofrax, LLC.

As part of the plant concept, the Management Board is evaluating if the production of fused cast bricks will be given up and a structured selling process initiated.

Glass

The contribution to revenue of the glass business unit was roughly 8% lower than in the previous financial year. This is attributable to the sale of the US subsidiary RHI Monofrax, LLC, which was confronted with utilization difficulties, in June. The company, which specializes in the production of fused cast refractories, generated revenue of roughly USD 30 million in the financial year 2015. The buyer is the German private equity fund Callista. The deconsolidation resulted in a negative effect on earnings of roughly € 4.6 million for RHI. In the years to come, RHI expects the transaction to result in an improvement of earnings in the glass business unit. Adjusted for the contribution to revenue of RHI Monofrax, LLC, revenue of the glass business unit rose slightly by roughly 1%. Especially in Thailand, the CIS region and Germany, the volume of business was significantly expanded. In contrast, a lower project level in the Middle East and Africa caused a decline in revenue. While business developed positively in the area of fired products, demand for fused cast products remains subdued. High excess capacities also burden the market environment in this segment.

The production of fused cast products for the glass industry is associated with high fixed costs, which in combination with low capacity utilization weigh on the margins. This required a complete write-down of assets for the Italian San Vito plant and the Russian Podolsk plant totaling € 8.0 million. As part of the plant concept, the Management Board of the RHI Group is evaluating whether a structured selling process will be initiated for the two companies or they will continue to be operated within the Group.

The global demand for glass products stabilized in the past financial year. Consequently, no further major capacities were taken off the market and repair activities for existing furnaces were stepped up. However, since the trend for longer furnace service lives also continued in the year 2016, these positive signals were not yet reflected in a significant improvement of the situation of refractories producers. RHI responds to these developments among other things by providing adjusted lining concepts and increased service offers, in order to compensate for the declining material requirements. In the flat glass segment, further capacities entered the market as new plants, for example in the CIS region and the US, started operations. In Europe, a plant that had been closed down resumed operation. In contrast, the economic downturn exacerbates the difficult situation of glass manufacturers in China and leads to high excess capacities due to weaker demand. In the container glass segment, repair activities also increased, especially in Thailand, Mexico and Europe. In the special glass segment, demand is expected to decline in parts of this segment in the medium term due to the development of new technologies which require less glass such as organic light-emitting diodes (OLED) for flat screens and the fact that no new large-volume glass products are in the pipeline. For the financial year 2017, RHI expects capacity utilization at the production facilities of the RHI Group to improve compared with the year 2016 as glass manufacturers step up their activities. In addition, the measures initiated to secure competitiveness in the area of ceramically bonded bricks and the expansion of the product portfolio of RHI Clasil in India should support the business development.

Environment, energy, chemicals

The contribution to revenue of the environment, energy, chemicals business unit fell by roughly 22 % compared with the strong previous year. This is primarily attributable to a major contract in the coal and petroleum coke gasifier segment in India, which was delivered in the financial year 2015. In addition, the persisting low oil prices cause a challenging market environment in the oil and gas industry. Especially customers operating with process costs clearly exceeding the current oil price, in particular the oil sand industry in the west of Canada, are confronted with high cost pressure. Moreover, demand by the most important customer market, the US, dropped significantly as local shale oil production increased. This development caused losses for the oil production industry in Canada of more than CAD 10 billion for each of the last two years. Against this backdrop, the business unit's revenue in Canada dropped by roughly 37 % compared with the previous year. In other regions which also heavily depend on the oil price such as Russia and Mexico, many energy companies are faced with the problem that a lack of investments increases dependence on imports in the medium term. Mexico, for example, is currently forced to export oil to the US and in turn import petrol to cover its own requirements. As a result, demand for refractory products by the oil processing industry has plummeted in Mexico. The low oil price level and weaker demand were also the main reasons why investments and contracts for new construction projects were held off. Investment programs which had already been reduced in the previous year were cut further in the past financial year, and planned projects were either postponed again or canceled completely.

In contrast, business in Middle East developed positively, especially in the area of pelletizing plants. This was among other things related to the good business development in Saudi Arabia and Iran. When the trade embargo with Iran was lifted, a significant increase in enquiries by the iron ore processing segment and the oil and gas industry was recorded. Subsequently, revenue more than doubled in comparison with the previous year. Many customers want to update their obsolete plants to the state of the art. Likewise, business also developed positively in Europe. Demand was solid especially in the maintenance business, which was among other things due to the expansion of services offered. As a result, revenue in this area also increased significantly.

Globally growing political influence and the resulting volatility of investment decisions make planning more difficult in the energy industry. The oil price, which has recently increased, and the investment backlog should have a positive impact on the business development in the medium term. For the financial year 2017, contribution to revenue is expected to slightly exceed that of the year 2016.

The business unit's decline in revenue is primarily attributable to a major contract in the coal and petroleum coke gasifier segment in India, which was delivered in the previous year.

The business segment with hardening plants for iron enrichment, so-called pelletizing plants, recorded a very satisfactory development.

Raw Materials Division

The operating EBIT improved primarily due to good capacity utilization at the Austrian raw material plants, which predominantly produce basic mixes for the steel industry.

The Raw Materials Division's external sales volume rose significantly from roughly 297,000 tons in the previous year to roughly 342,000 tons in the past financial year. The increase by 15.2% is above all attributable to the increase in the sale of raw dolomite in Italy, which makes a large contribution in terms of volume. However, due to the low price per ton, the contribution in terms of value is minor. Revenue decreased by 2.4% from € 272.6 million in the previous year to € 266.0 million in the past financial year. The decline in internal demand, especially by the Industrial Division, was partially compensated by an increase in external sales. The operating EBIT turned around from € (5.2) million to € 2.5 million in the past financial year, mainly because of the good capacity utilization at the two Austrian raw material plants in Breitenau and Hochfilzen, which predominantly produce basic mixes for the steel industry, especially for the use in electric arc furnaces. This is an immediate effect of the Steel Division's increase in sales volume in this product segment by more than 9% compared with the previous year to more than 500,000 tons. EBIT amounted to € 7.8 million in the year 2016 and includes costs amounting to € 4.8 million related to a social plan for the staff reduction and a reorganization of the product portfolio at the site in Porsgrunn, Norway. In contrast, a positive effect was realized from the measurement of the power supply contract in Norway. Based on own consumption, the sale at market prices and increased electricity future prices, financial liabilities of roughly € 10.1 million were reversed and recognized through profit or loss.

Segment indicators	in € million	2016	2015	Change
Revenue		266.0	272.6	(2.4)%
external revenue		41.2	38.0	8.4%
internal revenue		224.8	234.6	(4.2)%
Operating EBIT		2.5	(5.2)	148.1%
Operating EBIT margin		0.9%	(1.9)%	2.8pp
EBIT		7.8	(84.8)	109.2%
EBIT margin		2.9%	(31.1)%	34.0pp

In China, the government terminated its system of export quotas for and export duties on magnesite raw materials.

Slowing economic growth in the emerging markets, along with weaker industrial production, led to a slightly lower price level of important refractory raw materials such as sintered and fused magnesia, bauxite, andalusite and fused corundum in the year 2016. In addition, at the end of the year 2016 the Chinese government terminated its system of export quotas for magnesite raw materials, which had been in force since 1994, thus causing uncertainty among the market participants regarding the further price development. Moreover, the Chinese government abolished the export tax previously levied on sintered and fused magnesia at the end of December. However, experts assume that the Chinese government will quickly adopt alternative measures such as production controls and stricter environmental legislation, similar as for rare earths, and will drive ahead consolidation within the industry. Increasing production costs and stricter environmental laws indicate increasing raw material prices in China, the largest production country, in the medium term. At the end of the year 2016, a rising price level was already observed for non-basic raw materials and chrome ore.

Raw material mining [G4-EN1]

Raw material costs account for more than 50% of the total production costs in the RHI Group. The two most important raw materials are sintered magnesia and fused magnesia. Access to and the availability of high-quality raw materials are decisive for refractory products because they have a significant influence on their performance characteristics. Roughly 70% of the global magnesite deposits are located in China, North Korea and Russia. Therefore, RHI considers access to its own raw materials a strategic advantage.

Raw material costs account for more than 50% of the RHI Group's total production costs.

RHI mines magnesite and dolomite at five locations. Underground mining is used at the Austrian sites in Radenthein and Breitenau, while raw materials are extracted in surface mining operations in Marone, Italy, Eskisehir, Turkey, and Hochfilzen, Austria. In addition, part of the raw material supply of the site in Hochfilzen, Austria, is secured by the recovery of production waste, so-called fine tailings. Up to 30,000 tons of raw materials can thus be returned to the production process per year. Long-term mining licenses secure the access to the deposits. Core drilling activities are performed continuously in order to categorize deposits. Sustainable mining plans taking into account the lower mining districts are predominantly prepared within the Group, analyzing where in the rock the resources are located and which mining options are available to develop rock strata that are located even lower in the future.

RHI also pursues an alternative method of extracting raw materials from seawater. In this production method, the magnesium chloride contained in seawater is converted into magnesium hydroxide and calcium chloride in a reactor using hydrated lime. The magnesium hydroxide settles in a sedimentation basin and is then dehydrated in filter systems. It is heat-treated to turn it into caustic magnesia, which is then fired to become sintered magnesia or charged to the fusion process. This process requires more energy than the treatment of magnesite ore due to the two-stage procedure, but enables higher raw material qualities.

RHI mines magnesite and dolomite at five sites and pursues an alternative method of extracting raw materials from seawater.

Reforestation and recultivation [G4-EN13]

The mining of raw materials involves interference with nature. RHI takes comprehensive measures to restore natural habitats, especially in the surface mines, but also in the surroundings of production sites. In many cases, the activities go beyond national regulations and nature conservation requirements; they are considered to be a process that takes several years and requires sustainable commitment. In Eskisehir, Turkey, for example, 6,000 trees were planted in cooperation with the Osmangazi University and the local forestry office in the year 2016. With this campaign, the population of young trees now totals 166,000 in the main mining area of Dutluca and the area planted with trees has grown to roughly 145 hectares. In addition, 16,650 trees were planted in the smaller mining sites on an area totaling 27.5 hectares. At the site in Hochfilzen, Austria, the Schmerlhalde West mine dump, which is located at a sea level of 1,820 meters in the Weißenstein magnesite mine, was also recultivated. As is appropriate for the high Alpine environment, plants and trees such as mountain pines, larches and willow cuttings were planted. At the site in Marone, Italy, the shut-down terraces in the Calarusso mine are gradually being restored. In the year 2016, trees and bushes were replanted and lower lying areas of the surface mine were also recultivated for the first time.

RHI often goes beyond national regulations and nature protection requirements regarding reforestation and renaturation.

The recovery of refractory materials has several advantages.

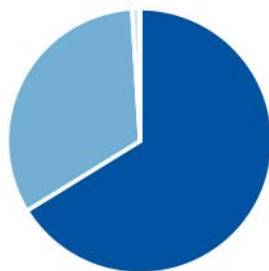
Use of secondary raw materials

RHI attaches great importance to the sustainable and intelligent use of resources. The objective is to reuse a large part of the refractory products used by customers as high-grade recycling materials. Due to chemical changes of the refractory materials during use in customer aggregates, only a certain portion of the scrap material has been recovered directly for the production of refractory materials so far. RHI intends to tap this unused potential to a much greater extent by applying alternative treatment methods – this also represents a strategic focus in research. The recovery of refractory materials has several advantages. On the one hand, it serves to secure the supply with raw materials in the long term and to reduce cost-intensive raw material procurement; on the other hand, it also enables a significant reduction of CO₂ emissions and energy consumption. Moreover, the recycling of scrap materials reduces the volume of waste and cuts disposal costs.

The volume of recycling materials used increased by 7% to roughly 61,000 tons.

In the reporting period, the volume of externally purchased secondary raw materials decreased by 15% to roughly 51,000 tons compared with roughly 60,000 tons in the previous year. The volume of recycling materials used increased by 7% from roughly 57,000 tons to roughly 61,000 tons. Hence, roughly three quarters of all products sold contain a certain amount of secondary raw materials. In relation to the annual production volume, this corresponds to a recycling share of 4.1% after 4.0% in the year 2015. At roughly 18%, the recycling share for magnesia carbon bricks remained at a constant level. In the Industrial Division, initiatives were launched to further increase the quantity of secondary raw materials used. [G4-EN2, G4-EN28]

Direct CO₂ emissions



CO₂ emissions [G4-EN15, G4-EN16]

The production of raw materials for refractories is energy-intensive and associated with emissions. On the one hand, the materials only obtain the necessary refractory properties at temperatures of 1,800 degrees Celsius and above; on the other hand, carbon dioxide is released in the treatment of raw materials. This is inevitable as carbon dioxide is already contained in the raw material. RHI uses two processes for the production of raw materials. Magnesia is produced by firing magnesite from mines ("dry route"), or extracted from seawater ("wet route"). In both processes the CO₂ emissions are largely raw-material-related; therefore, the options to lower emissions are limited.

For example, in the production of one ton of magnesia using the dry route, roughly 1.4 tons of carbon dioxide are created, which consist of roughly 1.0 tons of CO₂ contained in the raw material and roughly 0.4 tons from the use of the fuel. Consequently, carbon dioxide bound in the raw material accounts for more than 70% of the emissions and cannot be avoided in the production process. Less than 20% of the emissions come from the thermal energy required to separate the magnesium oxide from carbon dioxide and the fusion energy for crystal formation. Roughly 10% is related to energy losses of the plant such as heat losses and waste gas temperature. Theoretically, a third of this could be reduced, which corresponds to about 0.05 tons of carbon dioxide. As RHI continuously takes measures to enhance energy efficiency, the physical and thermal possibilities have been nearly exhausted. [G4-EN19]

In the year 2016, the Group's total CO₂ emissions added up to 1.65 million tons and were thus nearly unchanged compared with the previous year. The main part of CO₂ emissions, roughly 88%, was accounted for by direct carbon dioxide emissions, i.e., emissions related to the company's own production processes. Indirect CO₂ emissions, which are derived from power consumption, accounted for roughly 12% of the total CO₂ emissions. Shown in a simplified manner, the carbon dioxide emissions created in electricity production are integrated based on a European primary energy mix. Raw material production accounted for roughly 89% of the direct CO₂ emissions, and the production of finished products for roughly 11%. The production option "dry route" was responsible for roughly four fifths of raw-material-production-related carbon dioxide emissions, while the "wet route" option accounted for approximately one fifth of the emissions. Roughly two thirds of the direct CO₂ emissions come from the European sites. They are subject to the emissions trading system of the European Union and are externally audited. At the sites outside the European Union comparable methods are used to record CO₂ emissions. As of the Annual Report 2016, the emissions of the Turkish site in Eskisehir are shown under the region Asia since they are not subject to the emissions trading system of the European Union. Applying this allocation, direct CO₂ emissions in the previous year totaled 971,000 tons in Europe and 406,000 tons in Asia.

In the production of magnesia, carbon dioxide bound in the raw material accounts for more than 70% of the emissions, which cannot be avoided in the production process.

Financial and Asset Position

The largest investment in 2016, at roughly € 4 million, was the modification of the fusion in Radenthein, Austria.

Investments

In the year 2016 the RHI Group's investments amounted to € 70.8 million. Of this total, environmental investments and public authority requirements accounted for roughly € 13 million, the expansion of production capacities for roughly € 2 million, and maintenance, repair and rationalization measures as well as other investments such as gunning machines for application at the customer sites, IT systems, other intangible assets and prepayments added up to roughly € 56 million. The largest investment project of the past financial year was the modification of the fusion in Radenthein, Austria, which totaled roughly € 4 million.

The regional distribution of investments is shown in the table below:

Investments	in € million	2016	2015	Change
EMEA		59.0	61.2	(3.6)%
Asia		8.0	13.4	(40.3)%
NAFTA		3.3	5.3	(37.7)%
South America		0.5	0.9	(44.4)%
Investments		70.8	80.8	(12.4)%

Cash flow and liquidity

Net cash flow from operating activities declined from € 175.4 million in the previous year to € 162.7 million in the past financial year. This development is among other things due to higher income taxes paid less refunds. Net cash flow from investing activities amounted to € (52.9) million in the past financial year compared with € (47.2) million in the previous year and includes payments related to the sale of securities due to surplus coverage of the legally required provisions for pensions of two companies amounting to roughly € 6 million. The included dividend income of € 9.5 million (previous year: € 8.2 million) results from the 50% share held in MAGNIFIN Magnesiaprodukte GmbH & Co KG, which primarily produces flame retardants based on magnesium hydroxide.

Free cash flow amounted to € 109.8 million after € 128.2 million in the previous year.

Free cash flow, which is defined as the sum of net cash flow from operating activities plus net cash flow from investing activities, amounted to € 109.8 million in the past financial year after € 128.2 million in the year 2015. Net cash flow from financing activities amounted to € (80.7) million in the year 2016 after € (124.4) million in the previous years and includes, among other things, the dividend payment to shareholders of RHI AG of € 29.9 million. Cash and cash equivalents increased from € 149.7 million at December 31, 2015 to € 182.9 million at the end of the year 2016 due to the strong cash flow generation.

Cash flow	in € million	2016	2015	Change
Net cash flow from operating activities		162.7	175.4	(7.2)%
Net cash flow from investing activities		(52.9)	(47.2)	(12.1)%
Net cash flow from financing activities		(80.7)	(124.4)	35.1%
Cash flow		29.1	3.8	665.8%

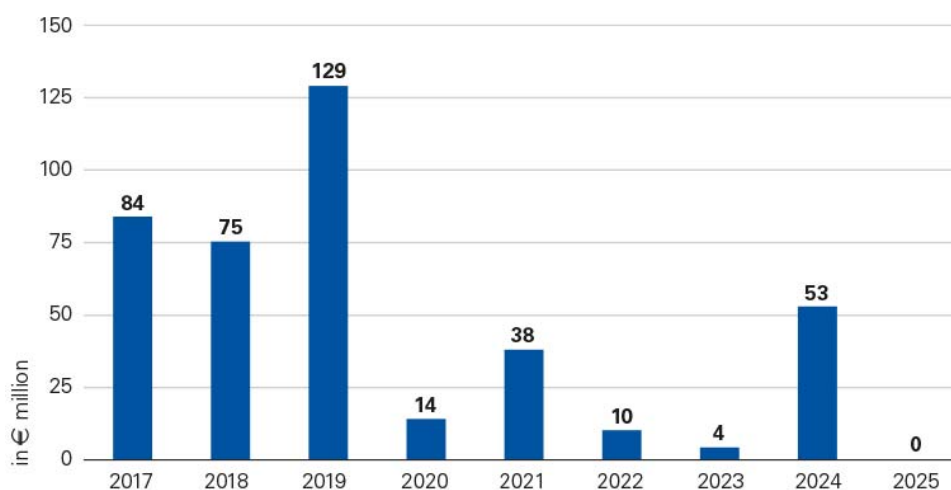
Net financial debt and financing

The consolidated statement of financial position as of December 31, 2016 shows financial liabilities amounting to € 515.7 million (previous year: € 547.6 million). After deducting cash and cash equivalents, net financial liabilities amount to € 332.8 million (previous year: € 397.9 million). Net financial liabilities correspond to roughly 1.8 times the EBITDA of the year 2016. This key figure also corresponds to the covenants in the most important loan agreements of the RHI Group and will lead to renegotiations of the loan conditions if the value of 3.8 is exceeded. Compliance with the covenants is reviewed quarterly, calculated on the basis of the EBITDA of the four preceding quarters.

Due to the strong free cash flow generation, net debt dropped sharply by roughly € 65 million to € 332.8 million.

Taking into account interest rate hedges, 38.9% (December 31, 2015: 38.0%) of the liabilities to financial institutions including the *Schuldscheindarlehen* carried a variable average interest rate of 1.6%, and 61.1% (December 31, 2015: 62.0%) a fixed average interest rate of 2.7%. The average interest rate thus amounts to less than 2.3% at December 31, 2016. A term to maturity of more than five years applies to 17.3% of the financial liabilities, while 50.7% have a term to maturity between one and five years and 32.0% have a term to maturity of less than one year. The repayment structure of liabilities to financial institutions (*Schuldscheindarlehen*, export loans and one-off financing) of € 408.0 million (previous year: € 437.0 million) as of December 31, 2016 is shown in the table below:

The average interest rate on liabilities to financial institutions including the *Schuldscheindarlehen* amounts to less than 2.3% at December 31, 2016.



Repayment structure

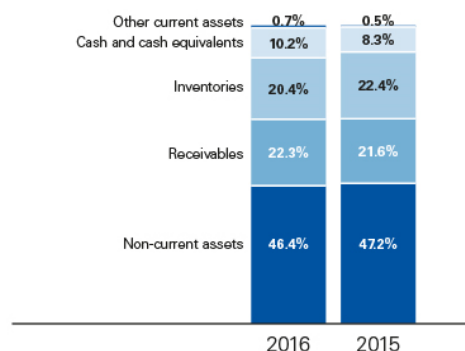
At December 31, 2016, the RHI Group had credit facilities of € 364.5 million (not taking into account the sale of receivables) with Austrian and foreign banks, compared with € 401.2 million at December 31, 2015 (not taking into account the sale of receivables). Of this total, € 310.8 million were unused at the end of December (previous year: € 339.1 million). In addition, liabilities to financial institutions from payments received on the sale of receivables amounted to € 11.9 million at December 31, 2016 (previous year: € 9.5 million).

Balance sheet structure and equity development

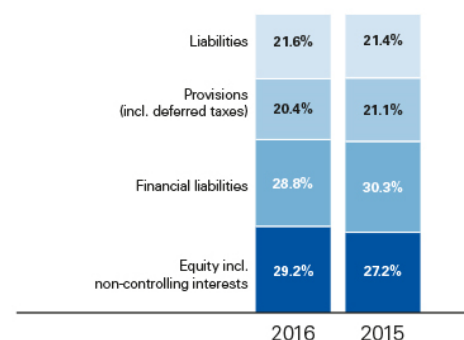
The balance sheet total of the RHI Group decreased slightly from € 1,804.5 million at December 31, 2015 to € 1,792.2 million at December 31, 2016.

Balance sheet structure

ASSETS



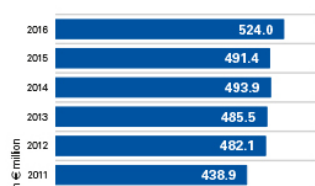
EQUITY AND LIABILITIES



Working capital once again decreased significantly by roughly € 68 million compared with the previous year.

Working capital, which consists of inventories and trade receivables less trade payables and prepayments received, decreased by 12.7% and amounted to € 465.1 million at the end of the financial year compared with € 532.6 million in the previous year. As a result, the working capital ratio (working capital in relation to revenue) improved from 30.4% to 28.2% at the end of the year 2016. The reduction of inventories by roughly € 39 million is primarily attributable to the Steel and Raw Materials Divisions. Compared with the level at the end of 2014, a reduction by roughly € 64 million or roughly 15% was accomplished within two years. RHI is working on a further optimization of the supply chain with the objective to further reduce inventories on a sustained basis. Receivables less prepayments from customers declined by roughly € 4 million compared with the end of the year 2015. There was a positive development in the amount of overdue receivables, which were significantly reduced. In order to counteract default risks, receivables are hedged as far as possible through credit insurance or bank securities such as guarantees and letters of credit. At December 31, 2016, the net credit risk amounted to € 127.5 million after € 120.0 million at the end of 2015 and is related to uninsured receivables from roughly 170 customers as well as deductibles from credit insurance. Trade payables rose by roughly € 25 million compared with the previous year. This is among other things due to the fact that purchases of fused magnesia from China were resumed after the adjustment of the production volume at the site in Porsgrunn, Norway.

Equity development



The RHI Group's equity amounted to € 524.0 million at December 31, 2016 after € 491.4 million in the previous year. The equity ratio improved from 27.2% to 29.2% in the year 2016. The gearing ratio, which is defined as net financial liabilities divided by equity, dropped from 81.0% to 63.5% in the past financial year. ROACE (Return on Average Capital Employed) is calculated by dividing EBIT less tax by the average capital employed (property, plant and equipment, goodwill, other intangible assets and working capital) and measures how effectively and profitably a company uses its invested capital. The figure, which was burdened by one-off effects included in EBIT in the previous year, rose from 2.3% in the year 2015 to 7.6% in the past financial year, also as a result of a decrease in capital employed.

Non-financial Performance Indicators

Non-financial performance indicators are important value drivers in a company which are not directly reflected in the statement of profit or loss, the statement of financial position or the statement of cash flows, but account for a substantial part of the company's success. An outstanding market position as well as a competitive advantage and a leading edge in innovation are generated by the interaction of a variety of intangible factors and are reflected in the financial indicators.

This combined report meets the requirements of the G4 Guidelines of the Global Reporting Initiative (GRI) in the Core option and covers all sustainability activities of the RHI Group in the financial year 2016. In cases where certain data and key figures cannot be assessed throughout the Group, country-specific information is provided. An overview of the information to be published in accordance with GRI G4 including the respective page number can be found at the end of this annual report. [G4-28, G4-32]

The RHI Group's sustainability activities are fully covered in the annual report.

Sustainability strategy

The sustainability strategy of the RHI Group defines the following four focal points: customer benefits, innovation, responsible employer and diversity as well as efficient use of resources. In the financial year 2015 the areas of activity were analyzed. The results showed that the topics customer benefits, innovation and efficient use of resources are already covered to a high extent. Therefore, the focus was placed on potential initiatives in the area of diversity in a first step. Further information regarding the sustainability strategy and the sustainability program including all measures and timelines can be found on the company website.

Key sustainability topics [G4-18, G4-19, G4-24, G4-25, G4-26, G4-27]

Based on the GRI principle of materiality, the focus of this report is placed on the key sustainability topics of the RHI Group. In the previous year, RHI reviewed and reprioritized the materiality of the sustainability topics. An online survey was conducted to integrate stakeholders worldwide. Internal stakeholders were chosen by their function in the Group and their relation to sustainability topics. The selection of external stakeholders such as customers, suppliers, authorities, associations as well as education and research institutions was based on their contact points with RHI. The questions were related to topics that should be at the center of sustainability management and of reporting, and to the evaluation of the Group's sustainability performance.

Based on a materiality analysis, twelve topics were defined as particularly relevant for RHI.

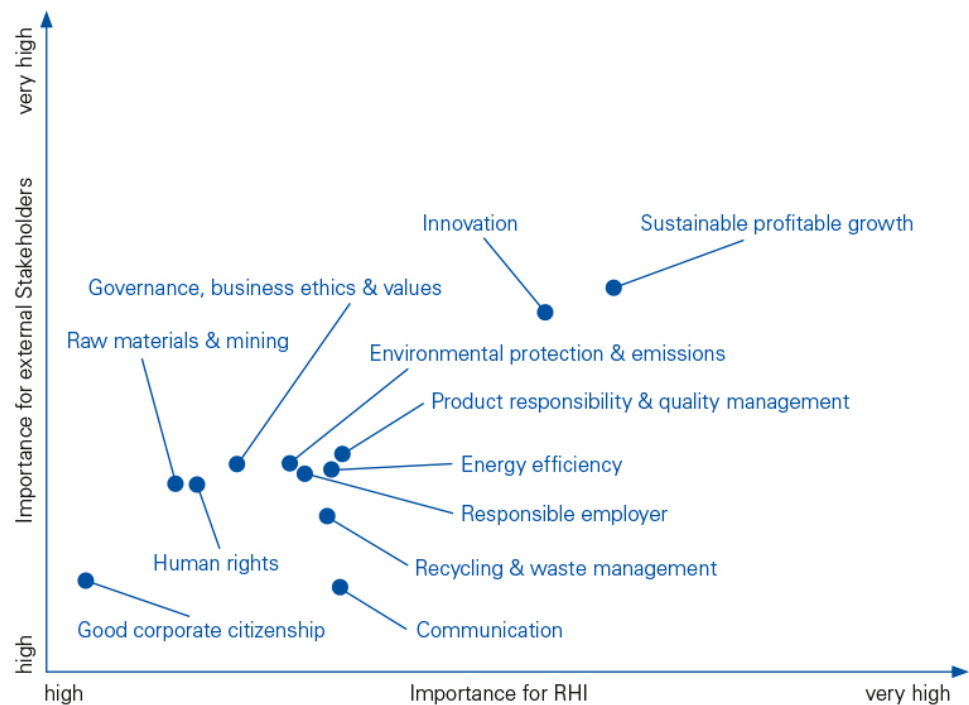
The following twelve topics are considered to be material, and within the organization are relevant to all companies included in the consolidated financial statements 2016: [G4-20]

- Sustainable profitable growth
- Innovation
- Governance, business ethics and values
- Communication
- Product responsibility and quality management
- Raw materials and mining
- Environmental protection and emissions
- Recycling and waste management
- Energy efficiency
- Responsible employer
- Human rights
- Good corporate citizenship

The stakeholders defined “sustainable profitable growth” and “innovation” as the most important topics.

All of these topics are of “high” or “very high” importance, with “profitable growth” and “innovation” clearly rated as most important both from an internal and external perspective. The external stakeholders rated the Group’s sustainability performance in the twelve areas either equally high or higher than the employees of the RHI Group. The performance in environmental protection and emissions was rated highest by both internal and external stakeholders.

Materiality matrix



Employees

The employees' comprehensive knowledge, their competence, ideas and their high commitment and motivation are indispensable for the success of the RHI Group. Only as an attractive employer for existing employees and for potential job applicants will RHI be able to win the best qualified people, to develop them, use their potential in the long term and consequently also stay competitive as a company. With subsidiaries on four continents and employees in 31 countries, RHI is faced with a variety of challenges including filling key positions with the right people, reacting to a threatening shortage of skilled labor, the ageing of personnel due to demographic changes, succession management and thus enabling a transfer of knowledge between generations, creating equal opportunities and development opportunities as well as responding to individual needs regarding work-life balance.

Personnel management within the RHI Group has a decentralized structure. The central function Human Resources defines group-wide guidelines and is responsible for the strategic management of supra-regional processes. Eight regional shared service centers are accountable for local implementation. In the reporting year, an evaluation was started regarding the competences and performance potential of employees of the second management level with a view to the company's strategic success.

In the financial year 2016 the number of employees decreased from 7,898 to 7,385. The decline by 6.5% was primarily due to the sale of the US subsidiary RHI Monofrax, LLC and the continuous expansion of automation processes in production and administration. In the past financial year, 53.6% of the employees in fully consolidated companies of the RHI Group worked in Western Europe, 29.8% in Asia/Pacific, 8.1% in North America, 3.0% in the Middle East, 2.7% in Eastern Europe and 1.4% in Africa and South America respectively. At the end of 2016, RHI employed 1,780 people in Austria. [G4-9, G4-10]

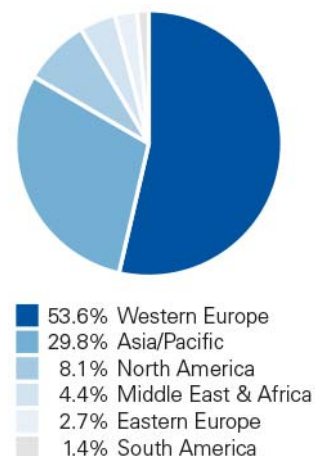
Key personnel figures in the RHI Group are shown in the following table:

	2016	2015	Change
Annual average number of employees ¹⁾	7,678	8,035	(4.4)%
Number of employees at 12/31	7,385	7,898	(6.5)%
Revenue in € million	1,651.2	1,752.5	(5.8)%
Revenue per employee in € 1,000	215.1	218.1	(1.4)%
EBIT in € million	116.1	37.5	209.6%
EBIT per employee in € 1,000	15.1	4.7	221.3%
Value added in € million ²⁾	514.8	446.0	15.4%
Value added per employee in € 1,000	67.0	55.5	20.7%
Personnel expenses in € million	398.7	408.5	(2.4)%
Personnel expenses per employee in € 1,000	51.9	50.8	2.2%
Personnel expenses in % of revenue	24.1%	23.3%	0.8pp

1) weighted by level of employment

2) Value added: EBIT + personnel expenses (excl. interest expenses for personnel provisions)

Employees by region



The employees' comprehensive knowledge and their high level of commitment are key success factors for RHI.

Personnel indicators

RHI generally concludes permanent contracts with employees. Currently 82 % of the employees have a permanent employment contract. Temporary workers are hired to cover order peaks in production. Only the Turkish raw material and production site in Eskisehir employs seasonal workers for climate reasons. [G4-10]

The turnover rate amounted to roughly 9% in the past financial year.

The turnover rate, defined as all exits (including retirements, excluding seasonal workers and temporary workers) divided by the average number of employees of the year, amounted to roughly 9% in the past financial year and is thus identical with the previous year. This indicator was higher for women, at 13.7%, than for men, at 9.0%, in the reporting year. Within the age groups, the turnover rate was highest among employees less than 30 years old at roughly 15%, followed by employees aged 50 and older at roughly 14% and the 30 to 50 age group at roughly 7%. From a regional perspective, the rate is highest in North America, at roughly 20%, followed by Africa at roughly 16%, South America and Eastern Europe at roughly 15% each and Western Europe and the Middle East, each at roughly 9%. The Asia/Pacific region recorded the lowest turnover rate, at roughly 7%. The average affiliation with the company was 11.9 years. [G4-LA1]

Health and safety at work

The accident rate is a bonus-relevant indicator.

RHI attaches great importance to its employees' health and safety at work. Safe business and production processes and measures to improve conduct serve to minimize risks. RHI collects parameters on accident development as well as reported near accidents for the purpose of accident prevention. The accident rate, defined as the number of accidents resulting in lost time of more than eight hours per 200,000 working hours, is determined on a monthly basis and reported to the Management Board. In addition, this figure was a bonus-relevant indicator for the Management Board and managers in the operations area in the year 2016. [G4-43]

After the accident rate was initially significantly reduced, only a slight improvement was achieved in the year 2016. Roughly 84% of time lost due to accidents at work is due to personal misconduct. RHI therefore places the focus on measures to improve conduct, in which executives play a special role. In the year 2011 RHI set the target to be accident-free by the year 2017, thus lowering the accident rate to less than 1.0. This ambitious goal will not be met in the current financial year. In order to further push the necessary culture change in the work processes, the target has been postponed to the year 2020. Occupational health and safety are part of the integrated management system at RHI. The RHI Group has been certified as a group according to the Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 since 2013. At the end of the year 2016, 23 sites were covered by OHSAS.

The accident rate and days lost were reduced in comparison with the previous year.

The accident rate was lowered from 1.85 in the previous year to 1.74 in the year 2016. The strongest decrease was achieved in America, with the rate falling below 1.0 for the first time in this region. The highest accident rate was recorded in Europe. The number of days lost based on an eight-hour working day per 200,000 working hours amounted to 33.5 compared with 46.0 in the previous year. Days lost decreased in all regions, but especially in America and Asia. The calculation takes into account employees of the RHI Group and leased personnel. After an extension of the internal soft-

ware, the accident data of subcontractors and external service providers will also be recorded as of the current financial year 2017. [G4-LA6]

Number	Year	Europe	America	Asia	Total
Accidents	2016	2.58	0.56	0.69	1.74
Accidents	2015	2.75	1.01	0.66	1.85
Lost days	2016	43.50	14.75	23.25	33.50
Lost days	2015	47.25	62.25	38.25	46.00
Fatal accidents	2016	0	0	0	0
Fatal accidents	2015	0	0	0	0

Accident rate and lost days

In 2016 the group-wide program regarding working in confined spaces was continued and uniform minimum standards for wearing personal protective equipment were introduced. At the production sites, a global information campaign on topics such as correct behavior on hot summer days was launched in order to counteract stresses and to reduce the increased accident rate during the summer months.

The involvement of employees is a key factor in preventing accidents and occupational illnesses. At regularly held Safety Minutes at the OHSAS-certified locations, safety-relevant topics are discussed with a focus on employees' own behavior. In addition, formal employer-employee committees for occupational health and safety were installed, in which currently 83% of the employees are represented. In production, roughly 96% of the staff are involved. There are no plans for a further expansion as part of additional OHSAS certifications. Numerous local company agreements regarding health and safety are in place at the RHI Group, for example regarding non-smoker protection, alcohol at the workplace or data protection relating to accident reports and their processing. In Austria, impulse tests have been used since 2006 to assess psychological stresses, which are then discussed at workshops in order to minimize them. [G4-LA5, G4-LA8]

In the financial year 2016, no work-related diseases were reported. Workers with a high incidence or risk of disease associated with their job are not specifically recorded. This aspect is covered by local reporting requirements. [G4-LA6, G4-LA7]

Diversity

Staff diversity contributes to an innovative climate in the company, so it is important to use diversity to maintain the Group's competitiveness and economic success. Since 2014, diversity has also been one of the focal points of RHI's sustainability strategy. RHI's staff consists of people from a total of 69 countries. People from 18 countries work at the company's headquarters in Vienna, Austria. The average age of the employees amounts to roughly 41 years, with 61.7% of the employees falling into the age group of 30 to 50 years. The under-30 age group includes 15.1% of the employees and 23.2% are over 50 years old. The worldwide share of women remained at a similar level as in the previous year, at 12.6%. The share of women in the Management Board was 20% at the end of the financial year. The share of women in

In the year 2016, people of 69 different nationalities worked for the RHI Group.

the first three management levels amounted to 0%, 6.3% and 8.9% at the end of the financial year. [G4-10, G4-LA12]

Employee groups by gender

At 12/31/2016 Employee Group	Number women	Percentage by gender	Number men	Percentage by gender	Total
Salaried employees	814	23.7%	2,614	76.3%	3,428
Waged workers	88	2.4%	3,650	97.6%	3,738
Commercial apprentices	14	45.2%	17	54.8%	31
Technical apprentices	13	6.9%	175	93.1%	188
Total	929	12.6%	6,456	87.4%	7,385

Staff diversity is essential to maintain the RHI Group's competitiveness and to create an innovative climate in the company.

The topics of diversity and equal opportunities are continuously promoted through different initiatives. The focus is placed on optimally using the potential of both genders and all age groups. Management levels for the creation of transparency in leadership positions have thus been implemented and the network for the promotion of an inter-departmental exchange of female engineers at the location in Vienna was further boosted. RHI attaches great importance to getting girls and women interested in a technical career in industry. Making female role models in technical professions visible has now become an integral part of the company's profile at career fairs. As a partner of the initiative of OMV AG "Austria is looking for the Technikqueens," RHI strives to inspire girls at an early stage to pursue a technical profession. The activities of the initiative are supported internally by women working in technical departments and accompanied as part of a mentoring program. RHI has also supported "Future.Women," an initiative of the Austrian Federal Ministry of Science, Research and Economy, the Austrian Economic Chamber and the Federation of Austrian Industries, since 2012. The objective of this program is to make management positions more attractive for women and thus increase the share of women in these positions. As part of a demography project launched in Germany and Austria in the previous year, possibilities for age-appropriate work were evaluated in order to sustainably secure employees' ability to work at an older age. In a next step, the defined fields of activities and the derived measures will be gradually implemented in subprojects. Internationalization is promoted through international career opportunities and training courses on intercultural competence. [G4-15]

The salary of new employees in the RHI Group is based on training, professional experience and the management level of the respective position. No difference is made between men and women. Roughly 80% of the management functions at the RHI Group's production sites worldwide were held by local employees at the end of the financial year 2016. [G4-LA13, G4-EC6]

Training, advanced education and personnel development [G4-LA10]

RHI takes account of demographic changes in society and the related shortage of skilled labor by offering apprentice training that goes far beyond the legally required level. In the financial year 2016, 219 apprentices were trained in Austria, Germany, Ireland, Italy, Norway and Switzerland, with roughly 86% of them working in technical apprenticeships. Similar to the previous year, the share of women was roughly 12%. About 36% of the female apprentices in the RHI Group work in a technical apprenticeship. Additional offers such as language courses or stays at locations abroad as part of apprentice exchange programs promote the mobility of young people and con-

In the year 2016, 219 apprentices were trained in Austria, Germany, Ireland, Italy, Norway and Switzerland, with roughly 86% of them working in technical apprenticeships.

sequently enhance their job opportunities. Other training measures include social and digital competence, energy efficiency, methods of modern production technology, occupational safety and general business administration. The target is to cover the demand for skilled professionals with apprentices who have been trained to meet these specific requirements.

The RHI Group offers its employees a wide range of development opportunities, which are aligned to the abilities, knowledge and needs of the respective person. In advanced training, RHI distinguishes between open training, development programs and "Future Circles." In open training, there is a strong focus on conveying knowledge internally, i.e. training courses for employees held by employees. In the past financial year, the offer of e-learning content was extended to complement conventional seminars.

Knowledge building and personal development for defined functions are promoted in customized development programs, which extend over a longer period of time and several modules. In the year 2016, the new operations programs which had been started in the previous years, the Shopfloor Leadership Program with a group in China and the Management of Production Units Program were successfully completed. In addition to continuing these programs which prepare managers in production for their tasks in a structured manner, a stronger focus was placed on quality assurance and learning transfer. In the past financial year, 138 employees from Austria, Germany, Italy, Spain, the United Kingdom, China, Mexico, Canada and the USA participated in a development program.

The second round of the "Future Circles," RHI's two-year talent program for employees with especially high potential, was successfully carried out with 83 participants. The share of women in the "Future Circles" amounted to roughly 16%, thus exceeding the global share of women in the RHI Group of 12.6%. As part of the talent program, the participants are promoted individually, work in teams on strategically relevant tasks and projects and exchange ideas and thoughts with top management in the course of the project. Furthermore, the participants are given special consideration and support when internal positions are filled and as part of succession planning. The objective is to fill the majority of the RHI Group's key positions internally.

The annual appraisal interview represents a central starting point for the definition of further development opportunities within the Group. In Austria, the rate of interviews conducted amounted to roughly 91%, in Germany to roughly 85%, and worldwide to roughly 70%. In the past financial year, employees in Austria completed an average of 26 hours of further training per person. [G4-LA9, G4-LA11]

Corporate benefits [G4-LA2]

In general, all employees are entitled to corporate benefits. The individual benefits exceed the legally required level and vary according to region. Based on a company agreement concluded in the year 2013, all employees without a separate bonus agreement participate in the economic success of the RHI Group and receive a bonus linked to the EBIT margin.

RHI offers its employees a wide range of development opportunities.

The share of women in RHI's internal talent program "Future Circles" is roughly 16%, thus exceeding the global share of women in the RHI Group of 12.6%.

All employees receive a bonus linked to the EBIT margin to allow them to participate in the economic success of the RHI Group.

No defined benefit pension plans have been granted to employees joining the company since January 1, 1984; instead, a defined contribution model is in place.

No defined benefit pension plans have been granted to employees joining the company since January 1, 1984; instead, a defined contribution model is in place. Where it is legally possible, the company supports pension plans with deferred compensation models. In such models, employees use part of their monthly remuneration for pension provisions. Moreover, RHI provides collective accident insurance and health insurance for business travel abroad for all employees worldwide. Medical or safety-related emergencies are especially challenging when they occur during a business trip. Therefore, a 24/7 RHI emergency hotline for medical and safety-relevant questions has been available to RHI employees since the reporting year. The assistance provided ranges from preventive advice to concrete support on site. A country information portal offering up-to-date information about the destination country, potential health and safety risks, natural hazards and political events supports employees in optimally planning business trips. [G4-EC3]

Furthermore, RHI provides local benefits such as meal allowances, special shopping conditions, private health insurance as well as cultural and sports offers.

Models for returning to work after parental leave facilitate the compatibility of professional and private life.

Work-life balance [G4-LA3]

RHI is convinced that the best performance is achieved when it is easy for employees to combine their professional and private life. Flexible working hours, home office solutions, part time models, advanced education and models for returning to work after parental leave facilitate a reconciliation of professional and private life. Currently, roughly 15.6% of the female employees worldwide and roughly 1% of the male employees work part time. In the year 2016, 24 persons were on parental leave in Austria, of whom 18 women and six men started their parental leave in the reporting year. [G4-10]

According to an internal analysis, 94.4% of all employees on parental leave in Austria return to the company. Roughly 18% of the women and roughly 90% of the men then work full time. Only about 6% leave the company within one year of their return; half of them are women. The childcare options provided by RHI range from kindergarten places to childcare vouchers and daycare.

The employees of the RHI Group work at roughly 100 locations on four continents.

Internal communication

The employees of the RHI Group work at roughly 100 locations on four continents. This results in a need for reliable and prompt information within the Group, while different languages, time zones and cultures impose great challenges. Especially two group-wide channels serve to inform employees: the intranet and the employee magazine. On the intranet, news and events as well as projects in research and development or sales are reported regularly and promptly. In addition, the employee magazine is published twice a year, translated into nine languages and distributed to all sites. Modern means of online communication such as VoIP telephony (Voice over Internet Protocol), chat functions and online conferences based on "Skype for Business" enable a fast and inexpensive exchange of information.

Employee representation

RHI AG considers its employee representatives worldwide business partners. The Management Board of RHI AG sought active exchange, for example through participation in works council conferences. Dealing with each other is characterized by mutual respect and openness, which allows solving difficult problems together and to the best possible satisfaction of all parties involved. Worldwide, 60.3% of the employees are covered by collective bargaining agreements. In countries where such agreements exist, 100% of the employees are covered. [G4-11]

RHI AG considers its employee representatives worldwide business partners.

At 12/31/2016 Region	Employees covered		Employees not covered		Total
	Number	Share	Number	Share	
Western Europe	3,664	92.6%	295	7.4%	3,959
Eastern Europe	118	59.6%	80	40.4%	198
Middle East	0	0.0%	223	100.0%	223
Africa	104	100.0%	0	0.0%	104
North America	486	81.1%	113	18.9%	599
South America	84	84.8%	15	15.2%	99
Asia/Pacific	0	0.0%	2,203	100.0%	2,203
Total	4,456	60.3%	2,929	39.7%	7,385

Collective bargaining agreements

Social responsibility

As a good corporate citizen, RHI assumes social responsibility in the regions where its sites are located and supports initiatives and projects which contribute to social commitment. In the past financial year, a guideline applicable throughout the Group was introduced in order to ensure targeted donations and support payments. In accordance with the new regulations, thematic priorities and the maximum volume of contributions for the Group as a whole are determined by the Management Board. For the year 2017, the Management Board defined education and social cohesion as the focal points for donations and sponsoring activities. In the year 2016, RHI provided roughly € 0.4 million for charitable projects. This total comprises all donations made throughout the Group. Roughly € 0.2 million were accounted for by Orient Refractories Ltd. in India in accordance with local legal requirements. [G4-EC1]

RHI supports several initiatives which contribute to social commitment at the Group's locations.

In the year 2013, RHI started a global program focusing on an improvement in the technical vocational training of young people in Mexico and Turkey. The three-year project was 50% co-financed by the Austrian Development Cooperation. In Ramos Arizpe, Mexico, a dual training program for industrial mechanics, industrial electricians and toolmakers was initiated in cooperation with local partners. On the one hand, this program helps young people increase their chances in the job market, and on the other hand, it meets the demand of industry for well qualified skilled workers. Overall, 248 apprentices and 23 companies participated in the program during the project duration, which by now has become a part of the local technical vocational training offer and, after the end of the project has been continued independently by local stakeholders. In Eskisehir, Turkey, RHI cooperated with schools and companies to improve internships and adapt the curricula to the requirements of industry. In December 2015, a first pilot course started with 82 students. [G4-SO1]

Innovation / Research & Development

Innovative power is one of the key prerequisites for RHI to remain competitive in the contested global refractories market and to secure sustainable profitable growth. Addressing ideas systematically and turning them into marketable products, processes and services is a decisive lever for RHI to generate growth. The RHI Group builds on the innovative power of its employees to live up to its claim of technology leadership. Innovation management gives creativity a structure and ensures that ideas are converted to marketable products, services and new business models.

Innovation management focuses on the development of new service products to the benefit of the customer.

Innovation management

The "Innovation & IP Management" department was established in the year 2013. Its main tasks include identifying and substantiating innovation potential, preparing the decision-making basis for implementation and supporting all organizational units involved in its realization. A systematic process ensures efficient and effective procedures in the Group. At workshops and as part of the continuous improvement process, ideas were generated and processed in a structured manner based on the innovation process. Innovation management makes an important contribution to realizing the corporate strategy, with several of its initiatives being considered strategic measures. In the coming years, the focus will be placed on the development of new service products to the benefit of the customer. In order to respond to innovative market trends, the department initiated the Industry 4.0 initiative SMART (systematic measurement and analysis through result-driven technology), which spans a global network across the entire company as part of digitalization. Trends such as big data, connectivity, artificial intelligence and predictive maintenance are only a few aspects which open up new opportunities for RHI through this initiative. The objective is to align the RHI Group to new trends and to realize new business and service models.

The patent portfolio of the RHI Group comprises roughly 140 patent families. In 2016, eleven applications for new patents were filed.

Patents & intellectual property

RHI continuously examines the patentability of newly developed products, systems and technologies in order to provide targeted protection for the Group's innovations based on industrial property rights, thus strategically securing the company's market position. In the past financial year, eleven applications for new patents were filed. They included patent applications regarding the geometry of refractory components, improved lining technologies for customer aggregates and new compositions of refractory products. At the end of the year 2016, the patent portfolio comprised roughly 140 patent families. Based on patents and trademarks, the new products, systems and technologies are internationally protected in the market and their abuse is prevented.

RHI employs more than 170 people in research and development.

Organization and strategic approaches of research and development

The research and development division consists of the centralized Technology Center in Leoben, Austria, and local departments and employees, who work on specific tasks in coordination with the central unit. At the end of the year 2016, more than 170 people worked in research and development; the share of women is slightly higher than 30%. The R&D team in Leoben consists of colleagues from twelve different countries, with more than 40% of them holding a university degree. Great importance is attached to central knowledge management and the training of personnel resources required in the future. In 2016, seven apprentices – three women and four men – were trained in six different technical and commercial professions. [G4-LA12]

In line with the corporate strategy, targeted research and development activities were continued in the reporting period. The most important R&D focal points included:

- the further development of special ceramics such as isostatically pressed components, complex cast products and slide gate plates, among other things in view of the optimization of clean steel applications
- the development of methods for nondestructive material testing in line with quality assurance and the optimization of production processes through big data analyses of the production parameters
- the use of recycled raw materials and research of new methods for the treatment and reuse of refractory materials changed during operation
- the use of new raw materials and combination of materials
- the research of high-temperature insulation materials for more efficient energy use in high-temperature aggregates
- the development of environmentally friendly binder systems.

The most important scientific cooperation partners in the past financial year included the University of Leoben, Johannes Kepler University in Linz, Joanneum Research, the University of Graz and the Graz University of Technology, the Vienna University of Technology, the Slovak Academy of Sciences, McGill University in Canada and Fraunhofer-Gesellschaft in Germany. RHI also worked closely with technology leaders in the steel industry such as voestalpine Stahl Donawitz, voestalpine Stahl Linz, Böhler Edelstahl and Primetals Technologies at competence centers promoted by the Austrian Research Promotion Agency.

Research and development costs before subsidies and capitalization amounted to € 23.9 million in the past financial year. Basic research accounts for roughly 15% of these costs, the development of new products and production processes for roughly 40%, the optimization of existing products, production processes and process improvements for roughly 20%, and environmental protection and energy efficiency for roughly 25%.

Basic research

In basic research, which is often conducted in collaboration with scientific cooperation partners and within the framework of subsidized competence centers, an important focus lies on gaining an understanding of corrosion and erosion mechanisms of RHI products in different customer processes. The further development of the models for the simulation systems used at RHI also takes place as part of scientific collaborations.

The simulation and modeling methods used include the finite element method (FEM), computational fluid dynamics (CFD), the discrete element method (DEM), thermochemical simulations and water modeling. These methods enable the analysis of the flow conditions of liquid steel from the steel ladle through the tundish to solidification

Research and development expenses totaled roughly € 24 million in the year 2016.

One focus of basic research is on corrosion and erosion mechanisms of RHI products in different customer processes.

in the mold. Based on the models, customer-specific design and refractory solutions are offered. In the reporting year, the understanding of flow-relevant parameters in the casting channel of the slide gate system was improved using the new water model for the simulation of slide gate valves.

Development of new products and production methods

Innovative raw materials and production processes provide the basis for new products. New fused raw materials are developed based on phase-theory considerations and thermochemical calculations at the test plants of the Technology Center Leoben and developed further until ready for series production at the production facilities in Radenthein, Austria. In addition to classic oxidic raw materials, research also deals with non-oxidic raw materials, which have turned out to be promising.

Sol mixes are a young and highly successful product group in the non-basic mixes segment.

Sol mixes are a young and highly successful product group in the non-basic mixes segment. Due to their outstanding properties, they have set new standards in many areas of application. However, until recently, the liquid binder used for sol mixes had the disadvantage that it was irreversibly destroyed when it froze. This required seamless and costly temperature control of the entire logistics chain and therefore stood in the way of a more wide-spread use of sol mixes. In the reporting year, a frost-resistant sol binder was developed. It is not destroyed when it freezes and can be used without any limitations once it has defrosted. The pioneering role in this new product family can thus be secured and the market share can be further expanded.

Optimization of existing products and production methods as well as process improvements

In order to optimize products and adapt them to customer requirements, used refractory materials taken from a variety of customer aggregates are thoroughly studied.

To enhance existing production processes, the process data and data from the automatic product test facilities are interlinked and analyzed on the basis of big data approaches. In the area of mass data analysis, a project was launched with VRVis, a leading Austrian research institution in visual computing. The objective of the project is to develop a customized software tool for the rapid processing of complex mass data in order to be able to derive proposals for optimization. In order to optimize products and adapt them to customer requirements, used refractory materials taken from a variety of customer aggregates are thoroughly studied. The proposals for optimization derived from the analyses lead to a longer service life of refractory linings and to improvements of the customer's specific process costs. The results of these analyses often serve as a basis for product innovations. The close interdisciplinary cooperation between material development, design development in the simulation department and production development enables further improvements of the properties of existing products and optimal adaptation to customer needs. Examining raw material alternatives to existing products in order to secure raw material availability and to optimize the customer's total cost of ownership is also one of the fundamental activities of research and development.

Knowledge transfer to customers is an important cornerstone in R&D. At the Training Center Cement in Leoben, customers are familiarized with RHI's refractory products and lining techniques in seminars lasting several days. The participants can learn and practice handling refractory products on a full-scale model of a cement rotary kiln using modern lining machinery.

Environmental protection and energy efficiency [G4-EN6, G4-EN27]

Together with specialists at the production sites, processes and process data are documented, analyzed and measures are derived to stabilize processes and save resources. The main focus is on energy-intensive processes such as drying, curing and sintering. The processes are also examined using modeling and simulation. The objective is to further develop the environmental standards and to lower the energy consumption of the RHI Group.

The area of material development looks for alternatives for substances, which may no longer be used within the EU after the implementation of the REACH Regulation (EC No 1907/2006, "Registration, Evaluation, Authorisation and Restriction of Chemicals") or are considered to cause concern. New developments with reduced emissions have already been successfully placed in the market.

New refractory insulating materials are developed in order to support customers in reducing their energy consumption. Process data for serial production can be derived from the production at the pilot plant. In comparison with previously used insulating materials, the new materials feature improved density, porosity, strength, thermal conductivity and thermal capacity, allowing a reduction of the use of ceramic fibers in some sub-segments.

New refractory insulating materials are developed in order to support customers in reducing their energy consumption.

Environment and Energy

RHI's global environmental management is certified according to the international standard ISO 14001:2004 at 20 production sites.

For many years, RHI has been working on making production as resource-friendly and energy-efficient as possible, especially in terms of raw material and energy consumption, while administrative obligations by local authorities have been permanently increasing. Specialists from research, development and production work in a global network to reduce the impact on the environment to the greatest possible extent. A central competence center for environmental protection, energy, health and occupational safety coordinates RHI's activities and defines corporate environmental guidelines, for example with respect to uniform measuring methods, in order to ensure comparable data. The global environmental management system of RHI is certified according to the international standard ISO 14001:2004 at 20 production sites at the end of the year 2016. The certified locations are at the same time among the sites with the highest production capacities. In addition, the production sites without a certification also have the key elements of the environmental management system, which is in place throughout the Group. Moreover, RHI's products and services also contribute to more energy-efficient production and reduced emissions at customers' sites.

In the year 2016, the RHI Group invested roughly € 15 million in environmental measures, which comprise environmental investments, waste disposal costs and services such as certifications and consulting. For example, the first stage of the modification of the smelter at the Radenthein plant, Austria, was completed. The focus of this first phase was on redesigning the crushing and loading processes, with a special emphasis on reducing diffuse dust emissions at the site. The entire project is scheduled to be finished by the year 2018. The replacement of the wet dust removal plant at the raw material production facility in Trieben, Austria, was another environmental project. [G4-EN31]

An integrated management system ensures uniform control in the areas of quality, environment, and occupational health and safety.

Integrated management system

The integrated management system (IMS) of RHI in the areas of quality (ISO 9001), environment (ISO 14001), and occupational health and safety (OHSAS 18001) serves as an instrument to continuously improve performance and processes throughout the Group. Potential for improvement is continuously identified through internal and external audits and implemented as part of the continuous improvement process. RHI is externally certified according to ISO 9001:2008 at 25 of 30 production sites.

Based on the customer complaint process, which was rolled out group-wide in the financial year 2016, all deficits with respect to meeting customer requirements can be mapped in a system and systematically subjected to an improvement process. In the area of supplier complaints a software tool was developed to be able to track measures better. RHI attaches great importance to systematically working on potential for improvement and an even stronger focus will be placed on this topic in the future, also in line with the revisions of the international standards ISO 9001 and ISO 14001. Accordingly, a system tool to process and track process improvements and improvement measures in the areas of environment, occupational safety, audit and maintenance will be introduced throughout the Group in 2017. This is another step to network the knowledge gained through group-wide improvement initiatives.

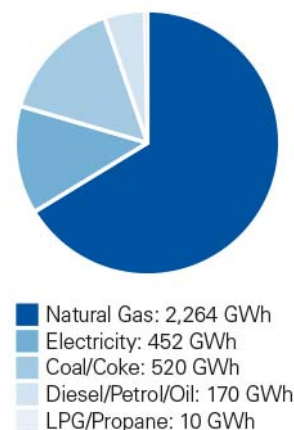
Energy efficiency [G4-EN3, G4-EN6]

As a company operating in an energy-intensive industry, RHI attaches great importance to the concept of “energy efficiency” for economic and ecological reasons. To ensure competitive production of refractory materials, a highly energy-efficient process along the entire value chain is necessary due to the energy intensity in particular in the area of raw material production. Moreover, the efficient use of energy contributes to the reduction of CO₂ emissions. In the past financial year, the RHI Group’s absolute energy consumption totaled roughly 3,420 gigawatt hours compared with 3,470 gigawatt hours in the previous year. The 1.5% decline in energy consumption compared with the previous year is among other things attributable to the reduced production of fused magnesia at the plant in Porsgrunn, Norway.

The energy mix in the RHI Group consists of natural gas, electricity, diesel, petrol, oil, liquid petroleum gas (LPG), propane, coal and coke. Renewable energy cannot be used at RHI for reasons related to production technology, as the required firing temperatures cannot be achieved with these fuels. In the past years, the energy management system according to ISO 50001 was introduced at all German and Austrian production sites. Worldwide, energy savings of roughly 0.7% of the RHI Group’s total energy consumption were realized at the production sites in the past financial year. In the reporting year, energy days were held at the sites in Radenthein, Austria, and Mainzlar, Germany, in order to raise awareness and inform employees about energy efficiency, among other things. RHI has set the target to reduce specific energy consumption, i.e., energy consumption in relation to production volume, by 0.5% per year. This target is highly ambitious as the Group’s specific energy requirements strongly depend on the product mix and the utilization of the plants. If a larger volume of products of an energy-intensive product group is produced, specific energy consumption will increase. In addition, customers’ growing quality demands often lead to higher firing temperatures, longer firing times or more demanding after-treatment, which causes higher energy consumption in the manufacturing process. Fired refractories are predominantly produced in tunnel kilns, which are among the most energy-efficient firing aggregates if utilization is consistent and high and firing temperatures are stable. If utilization fluctuates and batch sizes decrease, these advantages cannot be used. Moreover, the demands placed on flue gas purification are increasing. However, additional energy is required to ensure a clean thermal afterburning process at a minimum temperature of 750 degrees Celsius.

The production of refractories is energy-intensive, especially in the area of raw material treatment.

Energy consumption



Energy consumption	in GWh			in 1,000 GJ		
	2014	2015	2016	2014	2015	2016
Natural gas	2,278	2,067	2,264	8,201	7,440	8,151
Electricity	556	529	452	2,004	1,905	1,626
Coal/coke	470	476	520	1,691	1,713	1,873
Diesel/petrol/oil	307	267	170	1,105	961	613
LPG/propane	49	134	10	176	483	36
Total	3,660	3,473	3,416	13,177	12,502	12,299

Development of energy consumption

The search for substitute materials is a central part of the product responsibility at RHI.

Due to the process improvements successfully implemented in the past, the possibilities for further improvements in rotary kilns are only marginal. On the one hand, a minimum amount of dissociation energy is required to produce sinter; on the other hand, there are also mechanical limits to further insulation.

Use of substitute materials to protect health and the environment [G4-PR1]

In order to reduce the effects of hazardous substances on the health of employees and customers as well as on the environment, research and development strongly focuses on the search for substitute materials. Any new substance is tested for potential dangers before it is used, and provided that appropriate alternatives are available, hazardous materials are replaced by less hazardous or non-hazardous substances. The classification in accordance with chemical legislation and an evaluation of the impact of the substances on health and the environment guarantee a safe production process and the safe use of the products at the customer's site. As a result of the ongoing search for substitute materials, hydrated lime and aluminum sulfate have been reduced in many products and products with lower emissions from organic binders were launched on the market.

For the classification of chemicals and their labeling on packaging and in safety data sheets, the "Globally Harmonized System" (GHS) of the United Nations is applied in the Group. Within the European Union, the GHS is implemented through the CLP Regulation (EC No. 1272/2008, "Classification, Labeling and Packaging of Chemicals").

The RHI Group only uses raw materials registered in accordance with the REACH Regulation.

The RHI Group only uses raw materials registered in accordance with the REACH Regulation (EC No 1907/2006, "Registration, Evaluation, Authorisation and Restriction of Chemicals"). Beyond the requirements of the REACH Regulation, safety data sheets are prepared not only for unshaped products containing hazardous substances, but for all products. They are provided to all customers, even outside the European Union. Customers are thus informed about safe storage, transport, use and disposal of the products. [G4-PR3]

By using non-hazardous raw materials, the amount of hazardous waste is reduced when refractory products are disposed of. Another advantage is the fact that products not containing hazardous substances can be reused more easily as no test of substitute substances is required. [G4-EN27]

RHI continuously reduces ceramic scrap and returns it to the production process in order to prevent waste.

Waste management [G4-EN23, G4-EN27]

RHI continuously reduces ceramic scrap and returns it to the production process in order to minimize the quantity of waste. Residual materials that cannot be avoided are handled by licensed waste companies. In the past financial year, RHI reported roughly 44,000 tons of non-hazardous waste and roughly 2,500 tons of hazardous waste. The decline in non-hazardous waste is on the one hand attributable to the sale of the US subsidiary RHI Monofrax, LLC; on the other hand, a larger portion was sold as by-products to other industries in Europe. The increase in the quantity of hazardous waste is among other things due to more efficient after-treatments and cleaning technologies.

Roughly 75% of the non-hazardous waste consisted of ceramic scrap and mineral waste, which could not be returned to production so far due to mixing with other materials or because of insufficient grain size. Internal residues can only be reused to a limited extent. This primarily depends on the product mix as only defined residues can be used for high-grade products. In the reporting year, the RHI Group placed a strong focus in its environmental program on the efforts to avoid creating ceramic waste through the help of technical and organizational measures.

Waste in tons	Hazardous waste			Non-hazardous waste		
	2014	2015	2016	2014	2015	2016
Europe	2,420	2,160	2,450	31,000	38,000	30,000
America	60	60	40	13,000	11,000	3,000
Asia	60	100	30	10,000	9,000	11,000
Total	2,540	2,320	2,520	54,000	58,000	44,000

Development of waste volume

The innovative packaging solution for refractories developed by RHI was in use at 13 sites in the past financial year. The intelligent film to secure the load offers high protection during transport and reduces packaging waste at the customer site. In addition, the replacement of conventional shrink packaging leads to savings of roughly 280,000 cubic meters of gas per year for the Group according to calculations of the pilot plants. Of a total of roughly 1,107,000 packaging units shipped in the year 2016, roughly 927,000 or roughly 84% were packaged using this method. The target of 85% was thus nearly reached. In addition, a six-layer or seven-layer palletizing method provides for higher filling weight and thus a reduction of packaging material.

Reduction of dust emissions [G4-EN21]

Dust is primarily generated in firing and treatment processes. RHI continuously works on maintaining both collected and diffuse dust emissions at a low level. This is achieved among other things through preventive and systematic maintenance and service. In the reporting year, the program focusing on a reduction of diffuse dust was continued as an essential part of the environmental program. Major projects at the Austrian sites in Radenthein and Trieben as well as structural adaptations of material conveyor belts at handover points produced remarkable successes. In addition to positive effects on the environment, there is also an economic benefit as the material is maintained in the production cycle.

RHI continuously strives to keep the collected dust emissions from firing and treatment processes at a low level.

Sustainable transport concepts [G4-EN30]

The RHI Group strives to optimize transport costs and transport routes through efficient logistics concepts and to reduce any negative impacts on the environment. Measures including the minimization of empty trips, optimal utilization of the means of transport, an increase in the share of purely rail-based transport or a reduction of traffic on roads through combined transport contribute to realizing these requirements. The accomplishment of the targets linked with these measures is regularly reviewed internally and externally as part of the integrated management system. In the past financial year, RHI successfully completed the "Distribution Network Study" project, which had been launched in the previous year. Based on comprehensive anal-

RHI continuously works on optimizing transport costs and transport routes through efficient logistics processes.

yses using state-of-the-art optimization tools and discussions with logistics experts, a number of new concepts has been developed and largely implemented. In this context, it is important to mention the new transport concept for sea freight pre-carriages from the Austrian plants to the North Sea ports using alternative means of transport, taking into account new network hubs and utilizing innovative cargo handling technologies as well as the implementation of supra-regional round trips for raw material and finished good flows within the Group. Both economic and ecological benefits are generated through the new concepts.

Water consumption [G4-EN8]

Water is primarily used for cooling purposes in the RHI Group, but also to wash raw materials. A very low percentage of the water is used for briquetting and in production as part of the recipe. In the financial year 2016, RHI used roughly 5.2 million cubic meters of water, compared with roughly 5.8 cubic meters in the previous year. The Austrian sites accounted for roughly 80% and primarily utilized ground water. At these sites, the use of water is the most environmentally friendly type of cooling since no cooling circuits or energy have to be employed for alternative air cooling. At locations where water is scarcer, for example in Mexico and India, air cooling systems, among other things, and process water for irrigation are used.

Risk Management, Accounting & Internal Control System

Risk management process [G4-14]

Since its introduction in the year 2009, RHI's risk management process has been developed continuously with the objective of making a contribution to the Group's strategic and operational management. Uncertainties, risks and opportunities related to existing operating activities and future development areas as well as project activities are systematically recorded, assessed and controlled. The responsibility for the implementation and further development of the risk management process lies with central risk management, a staff function in the Finance department. The main elements of this process are the establishment of a formally adopted risk policy, the direct and full integration of all responsible managers, uniform structures and methods as well as the use of professional software. The definition of a risk policy which specifies the nature and extent of the risks acceptable to the Group is of central importance for this purpose. According to this policy, compliance, health and safety risks must be prevented through appropriate measures. In contrast, it is indispensable to take controlled entrepreneurial risks in the implementation of the strategy. Non-tolerable risks must be avoided, reduced or transferred based on appropriate strategies. In the year 2015, the functionality of the risk management was evaluated by the auditor for the second time. Based on the reference model chosen by RHI (ISO 31.000:2009), this risk management was deemed to be functional as of June 30, 2015. This audit is performed every other year and will thus take place again in the year 2017. In the past financial year, the development focus of the risk management system was on the systematic evaluation of risks related to production downtimes and the connection with medium-term investment planning. By combining local risk identification at the production sites on the one hand and viewing the global production network on the other hand, the most important production-relevant risks for the Group and its customers can be determined. After applying the relevant risk policy, necessary measures such as investments can be defined and prioritized.

In its risk reporting, the RHI Group distinguishes between planning uncertainties, unexpected events, and structural risks and opportunities. Recording and evaluating planning uncertainties serves to determine risk-adjusted target figures which reflect possible fluctuations regarding revenue and EBIT due to economic, political and financial developments. Unexpected events are events that are not planned and cannot be planned due to their low probability of occurrence. However, if these events do occur, they may have a positive or negative influence on the Group. Structural risks and opportunities are those risks and opportunities inherent to groups like RHI without any specific event causing these circumstances and which can be controlled by best practices.

Planning uncertainties

The economic development and the related demand by customer industries represent the main uncertainty for the RHI Group. The demand for refractory products is significantly influenced by steel production, the investment climate, and metal and energy prices. Although the Steel Division expects the global markets to be stable in the year 2017, the competitive pressure from China remains strong and competition for the market is still fierce. The Industrial Division, which is strongly dependent on project business, is still confronted with low metal and energy prices and repair activities that are difficult to forecast. Economic developments and policies such as in the CIS region, China or Turkey also represent significant uncertainties for the business development or exacerbate the competitive situation. However, the successful con-

clusion of single, unexpected projects may also lead to higher revenue and earnings. Possible fluctuations in sales volume have an impact on the utilization of the production capacities, which have a significant influence on the Group's profitability due to the structure of fixed costs. Consequently, optimizing the production network and making it more flexible are important measures to control risks. Finally, noticeable shifts in revenue and profitability may result from currency fluctuations due to the RHI Group's global sales and production activities.

Unexpected events

In this area, production-related risks are the most significant risks. The potential effects of production downtimes were systematically analyzed and aligned to the comprehensive maintenance and logistics concepts, which have been in place for years, and with the risk control programs. The investment policy derived from the risk analysis additionally secures RHI's current and future ability to produce and deliver. Potential risks for people and the environment arising from production activities have an important place in this risk analysis and the control policy. Unexpected events also include financial and organizational risks as well as risks related to tax proceedings and company audits, although these are of subordinated significance.

Structural risks and opportunities

This area includes compliance and cyber risks for example. Full compliance with laws and regulations is a matter of course for RHI. However, like many other internationally operating corporations, RHI is confronted with increasing regulatory complexity. In order to counter these growing risks, employees and partners are made aware of these risks in accordance with the best practices through a code of conduct, compliance guidelines and training. RHI is also aware of the possible effects of risks regarding information technology such as the non-availability of communication networks and data, as well as all forms of cyber attacks, and has taken appropriate measures.

Transaction risks

RHI's Management Board agreed on October 5, 2016 to sign a share purchase agreement regarding the acquisition of a controlling stake of at least 46%, but no more than 50% plus one share of the total share capital in Magnesita (the "Transaction"). There are risks regarding the completion of the transaction, which is among other things subject to (i) approvals by the relevant competition authorities, (ii) the migration of RHI to the Netherlands, (iii) the listing of RHI Magnesita's shares in the premium segment of the Official List on the Main Market of the London Stock Exchange and (iv) RHI's shareholders not having exceeded statutory withdrawal rights in an amount of more than € 70 million in connection with organizational changes preceding RHI's migration from Austria. The migration and the preceding organizational changes in Austria require qualified approval by RHI's shareholders' meeting. If the Transaction is terminated for reasons not under the control of Magnesita's Controlling Shareholders, an aggregate break fee of up to € 20 million is payable by RHI to Magnesita's Controlling Shareholders.

Financial risks

Financial risks are incorporated in RHI Group's corporate risk management and are centrally controlled by Group Treasury. None of the following risks represent a significant risk for the RHI Group:

Credit risk in the RHI Group is primarily related to operating receivables due from customers. In order to counteract the default risk related, receivables are hedged as far as possible through credit insurance or banking securities (guarantees, letters of credit), even if the contractual partner has an outstanding credit rating. Credit and default risks are monitored continuously, and the corresponding impairments and provisions are made for risks that have occurred and for identifiable risks.

The Group's financial policy is based on long-term financial planning and is centrally controlled and monitored continuously at RHI. The liquidity requirements resulting from budget and medium-term planning are secured by concluding appropriate financing agreements. These lines of credit were concluded with different Austrian and international banks in order to ensure independence of banks. The companies of the RHI Group are integrated into a clearing process managed by Central Treasury and provided with financing limits in order to minimize the need of borrowings for the Group as a whole.

Foreign exchange risks arise especially where business transactions (operating activities, investments, financing) are conducted in a currency other than the functional currency of a company. They are monitored at the group level and analyzed with respect to hedging options. The net position of the Group in the respective currency serves as the basis for decisions regarding the use of hedging instruments.

Hedges were in place for the following currencies in the past financial year ("hedging currency" to "domestic currency"):

- EUR to CNY (surplus of liabilities from intercompany financing)
- EUR to INR (surplus of liabilities from operating activities and from intercompany financing)
- EUR to NOK (surplus of receivables from operating activities)
- CAD to EUR (surplus of receivables from intercompany financing)
- USD to EUR (surplus of receivables from operating activities and from intercompany financing)
- USD to MXN (surplus of receivables from operating activities)
- USD to INR (surplus of receivables from operating activities)
- ZAR to EUR (surplus of receivables from intercompany business and from intercompany financing)

At December 31, 2016 the following open hedge positions existed:

- EUR to CNY (volume: € 21.7 million, surplus of liabilities from intercompany financing)
- EUR to INR (volume: € 8.9 million, surplus of liabilities from operating activities and from intercompany financing)
- CAD to EUR (volume: CAD 10.0 million, surplus of receivables of RHI AG from intercompany financing)

- USD to EUR (volume: USD 90.0 million, surplus of receivables of RHI AG from operating activities and intercompany financing in USD)
- USD to MXN (volume: USD 10.0 million, surplus of receivables from operating activities of the Mexican subsidiaries)
- ZAR to EUR (volume: ZAR 100.0 million, surplus of receivables of RHI AG from intercompany business and intercompany financing in ZAR)

The interest risk in the RHI Group is primarily related to financial instruments carrying variable interest rates, which may lead to fluctuations in results and cash flows. The RHI Group is predominantly exposed to interest risks in the euro area. In the year 2013, interest hedges totaling € 100 million were concluded for loans with a maturity beyond 2016, with a variable interest rate being converted into a fixed interest rate through an interest rate swap. Part of these loans has already been repaid, so that the liabilities of the interest hedges amounted € 75.7 million at December 31, 2016.

Financial reporting process

At the aggregated level, the financial reporting process at RHI consists of preparation, consolidation, audit and publication. The Group companies prepare individual financial statements according to IFRS at the company level based on the rules and provisions set out in the RHI Group manual for financial reporting. The Group manual defines, among other things, a uniform chart of accounts and rules regarding measurement and recognition. The individual IFRS financial statements of the Group companies, which are predominantly prepared using SAP, provide the basis for further processing in central group accounting. The consolidation department, whose tasks and responsibilities essentially comprise the support of the Group companies' data reports, the execution of consolidation measures, the analysis of the consolidated financial statements and the preparation of financial reports, is responsible for the preparation of the consolidated financial statements. The consolidation process is described in a guideline, which provides an overview of the sequence of the preparation of the consolidated financial statements by means of Hyperion Financial Management and quality assurance measures. In addition to the comprehensive and automated controls in the form of validations, extensive manual checks regarding plausibility and completeness of the financial information are performed. The information of internal and external accounting is based on the same data base and is reconciled for reporting on a monthly basis. In the assessment of risks involved in the financial reporting process and the determination of controls, special attention is paid to those items of the statement of financial position, the statement of profit or loss and the statement of cash flows which may have the most sustainable effects on the financial reporting of the RHI Group. These are in particular non-current assets, inventories, trade receivables and payables as well as personnel provisions. The internal financial reports prepared by Corporate Controlling are primarily addressed to the Management Board and executives on a monthly basis and the Supervisory Board of RHI AG. As part of mandatory external reporting, interim reports and half-year financial reports in accordance with IAS 34 as well as annual financial reports/annual reports are prepared and published.

Internal control system

RHI has guidelines regarding the internal control system (ICS), which address the risks of the Group and define preventive measures. The guidelines were established by the Management Board and have been introduced throughout the Group. The respective competent central and local management is responsible for implementing and monitoring the ICS. In addition, these internal controls are audited regularly at the group level. The risk portfolio is reviewed annually for necessary adjustments. The implementation of and compliance with the guidelines is audited by the staff unit Internal Audit, which reports to the Management Board. The annual audit plan is derived from the risk assessment of all company activities in the Group, approved by the Management Board and reported to the audit committee of the Supervisory Board. The results of the audits of the effectiveness of the ICS are reported to the Management Board on a regular basis. In the year 2016, one report on the effectiveness of the ICS was made to the audit committee. The RHI Group's guidelines pertaining to the ICS follow the basic structures of the internationally recognized standards for internal control systems (COSO – Internal Control and Enterprise Risk Managing Frameworks of the Committee of Sponsoring Organizations of the Treadway Commission). Central elements of the ICS include regular audits of compliance with the institutionalized four-eye principle, the separation of duties and defined control steps for the monitoring and control of effectiveness and efficiency of the operating activity (e.g. assets against loss and damage caused by malversation), the reliability of financial reporting and compliance with the legal provisions applicable to the company.

Notes in accordance with § 243a UGB

Composition of RHI share capital, class of shares, limitations and rights

At December 31, 2016, the share capital of RHI AG amounted to € 289,376,212.84 (12/31/2015: € 289,376,212.84) and consisted of 39,819,039 (12/31/2015: 39,819,039) no-par bearer shares. Only shares of this class are issued. Each RHI share generally has one vote. There are no RHI shares with special control rights.

With the exception of the voting rights of the MSP Foundation due to the provisions of the Austrian Takeover Act, no limitations regarding the voting rights of RHI shares, including from agreements between shareholders, are known to the company.

Direct and indirect shares in RHI capital

At March 10, 2017, the following investors with significant shareholdings were known to RHI: MSP Foundation, Liechtenstein, with a share of more than 25%, Chestnut Beteiligungsgesellschaft mbH with more than 5% and Silver Beteiligungsgesellschaft mbH with more than 5%. Regarding MSP Foundation, Liechtenstein, a limitation of voting rights of 26% applies pursuant to the stipulations of the Austrian Takeover Act. The voting rights of Chestnut Beteiligungsgesellschaft mbH and Silver Beteiligungsgesellschaft mbH are jointly exercised; consequently, the joint share in voting rights held by the two companies exceeds 10%.

Authorization of the members of the Management Board to issue shares

The Management Board was authorized by resolution of the Annual General Meeting of RHI AG on May 8, 2015, in accordance with § 169 of the Stock Corporation Act (AktG), to increase share capital with the consent of the Supervisory Board until May 7, 2020 by up to another € 57,875,236.75 by issuing up to 7,963,807 new ordinary bearer shares (no par shares) for a cash contribution – also in several tranches – and to determine the issue price, the issue conditions and further details regarding the execution of the capital increase in agreement with the Supervisory Board.

Employee stock ownership plan “4 plus 1”

With a resolution of the 37th Annual General Meeting of RHI AG on May 4, 2016, the Management Board of the company was authorized to acquire treasury shares in accordance with § 65 para. 1 (4) AktG in the amount of up to 12,000 no-par shares at the share price of the day on which this authorization to issue shares to employees and executives of the company as well as to members of the management, executives and employees of Group companies is exercised as part of the continuation of the employee stock ownership plan “4 plus 1”. The authorization to acquire shares is valid for 30 months, while the related authorization to sell in accordance with § 65 para. 1b AktG is valid for five years from the day of the resolution.

Significant agreements taking effect in the case of a change of control

Part of the contracts regarding non-current liabilities to financial institutions includes not only reasons for termination ensuing from legislation, but also a reason to terminate in the event that a person or a group of persons acting in concert acquires direct or indirect control of more than 50% of the shares or the voting rights in the borrower. In this context, control refers to the right to appoint the majority of the Management Board members of the borrower, or to hold the majority of the voting rights at the Annual General Meeting, or to have the contractual right to determine the business policy of the borrower. In the event that this reason of termination exists, the lenders may declare the loan due with immediate effect and demand immediate repayment of

the principal including interest, as well as the payment of other amounts payable that may have been incurred. This so-called “Change of control” clause represents a termination option for the lender for non-current liabilities to financial institutions with a volume of roughly € 383 million.

Provisions regarding the appointment and removal of members of the Management and Supervisory Boards

The appointment and removal of members of the Management Board are governed by § 75 of the Stock Corporation Act (AktG). In addition to that, the articles of association stipulate in § 8 that the Management Board shall consist of two, three, four or five persons.

The Supervisory Board consists of a minimum of three members.

Outlook

In its forecast published in January 2017, the International Monetary Fund expects global economic growth of 3.4% in the current year after 3.1% in 2016. However, there is considerable uncertainty regarding the effects of the policies of the newly elected US government. Although the environment in the advanced economies improved in the second half of 2016, the pace of growth in the emerging countries will continue to exercise a significant influence on the global economic situation. Based on a study of mid-November 2016, the research institute CRU expects steel production in China to decline by roughly 2% in the year 2017 and steel production outside China to grow by an ambitious 6%. The emerging markets are also among the main drivers in this area. Based on these estimates, RHI expects a more positive market environment in 2017. The focus will stay on the generation of free cash flow in the current financial year in order to reduce net debt further. RHI is currently working on meeting the conditions precedent to the successful closing of the planned combination with Magnesita and is preparing the integration of the two companies. In the context of these activities, external costs will be incurred. The Management Board of RHI AG intends to propose a dividend of € 0.75 per share to the Annual General Meeting on May 5, 2017, the same as in the previous year.

Planned combination with Magnesita

RHI AG ("RHI") and the controlling shareholders of Magnesita Refratários S.A. ("Magnesita"), investment vehicles affiliated with GP Investments ("GP") and Rhône Capital ("Rhône"; and together with GP, "Magnesita's Controlling Shareholders") reached an agreement on October 5, 2016 to combine the operations of RHI and Magnesita to create a leading refractory company to be named RHI Magnesita. Accordingly, RHI's Management Board agreed on October 5, 2016 to sign a share purchase agreement ("SPA") with Magnesita's Controlling Shareholders regarding the acquisition of a controlling stake of at least 46%, but no more than 50% plus one share of the total share capital in Magnesita (the "Transaction") pending RHI's Supervisory Board approval. At its meeting on October 13, 2016, the Supervisory Board of RHI AG gave its approval to the resolutions proposed by the Management Board regarding this Transaction. The purchase price for the 46% stake will be paid in cash amounting to € 118 million and 4.6 million new shares to be issued by RHI Magnesita, a new RHI entity to be established in the Netherlands and listed in London. The exchange ratio applied in the Transaction is 0.19 newly issued RHI Magnesita shares for 1 Magnesita share. Based on RHI's six-month volume weighted average price of € 19.52 as of October 4, 2016, the implied value of the 46% stake amounts to € 208 million, implying a value for Magnesita's entire share capital of € 451 million. The calculation is based on 10 million newly issued RHI Magnesita shares and 52,631,881 Magnesita shares.

As a result of the Transaction, GP will become a relevant shareholder of RHI Magnesita. The combined company's corporate governance will be constituted on a one-tier board structure while GP will be represented on the board of directors. All RHI Magnesita shares issued to the controlling shareholders of Magnesita will be subject to a minimum 12-month lock-up period.

The completion of the Transaction is amongst others subject to (i) approvals by the relevant competition authorities, (ii) the migration of RHI to the Netherlands, (iii) the listing of RHI Magnesita's shares in the premium segment of the Official List on the Main Market of the London Stock Exchange and (iv) RHI's shareholders not having exceeded statutory withdrawal rights in an amount of more than € 70 million in

connection with organizational changes preceding RHI's migration from Austria. The migration and the preceding organizational changes in Austria require qualified approval by RHI's shareholders' meeting. As a consequence of the Transaction, RHI Magnesita will become the ultimate holding company of RHI Group while the shareholders of RHI will cease to hold shares in RHI and instead hold RHI Magnesita shares. Following registration of the corporate restructurings, RHI's shares cease to be listed on the Vienna Stock Exchange. The place of effective management of RHI Magnesita will be Austria. If the Transaction is terminated for reasons not under the control of Magnesita's Controlling Shareholders, an aggregate break fee of up to € 20 million is payable by RHI to Magnesita's Controlling Shareholders.

Following completion of the Transaction, which is expected for 2017, a mandatory tender offer will be launched by RHI Magnesita or one of its affiliates for the remaining shares in Magnesita ("Offer"). As part of the Offer, a maximum number of 5.0 to 5.4 million RHI Magnesita shares will be issued, depending on the stake acquired within the Transaction, thereby resulting in an aggregate number of no more than 10.0 million newly issued shares to finance the acquisition. The Offer will include the option to sell shares on the same payment terms as the Transaction as well as a cash-only alternative amounting to € 8.19 per Magnesita share (subject to certain adjustments according to the SPA). If some or all of Magnesita's other shareholders elect not to receive RHI Magnesita shares in the Offer, Magnesita's Controlling Shareholders have committed to purchase at least 1.5 to 1.9 million and at most 3.4 million additional new RHI Magnesita shares, thereby increasing their total number of RHI Magnesita shares to a maximum of 8.0 million. RHI Magnesita may decide to combine the Offer with a delisting offer and/or a voluntary offer to exit Magnesita from the "Novo Mercado" listing segment. The Offer will follow applicable Brazilian laws and regulations. Any RHI Magnesita shares that are not taken up in the Offer by Magnesita's shareholders may be either placed into the market or with institutional investors.

The Transaction will be financed by additional debt and the issuance of 4.6 to 5.0 million RHI Magnesita shares to Magnesita's Controlling Shareholders. At the same time, Magnesita will continue to finance itself on a standalone basis without credit support from RHI Group. Before or at completion of the Transaction, Magnesita is expected to adopt RHI's accounting practices, which could lead to significant, however substantially non-cash adjustments in Magnesita's book equity value.

The planned combination of RHI and Magnesita was submitted in the US and approved by the Federal Trade Commission in November. Currently, further applications with antitrust authorities, among others in Europe and Brazil, are being prepared or implemented.

Material Events after the Reporting Date

The Management Board of RHI AG is not aware of any events after the reporting date which may have a material effect on the assets, financial and earnings position of the Group.

Vienna, March 10, 2017

Management Board



Stetan Borgas
CEO



Barbara Potisk-Eibensteiner
CFO



Gerd Schubert
COO
CTO R&D



Thomas Jakowiak
CSO Industrial Division



Reinhold Steiner
CSO Steel Division

Consolidated financial statements 2016

Consolidated statement of financial position

as of 12/31/2016

in € million	Notes	12/31/2016	12/31/2015
ASSETS			
Non-current assets			
Property, plant and equipment	(10)	521.8	532.2
Goodwill	(11)	37.8	37.5
Other intangible assets	(12)	71.1	74.2
Investments in joint ventures	(13)	20.5	19.3
Other non-current financial assets	(14)	18.9	23.7
Other non-current assets	(15)	17.7	18.0
Deferred tax assets	(16)	144.8	146.1
		832.6	851.0
Current assets			
Inventories	(17)	365.3	403.9
Trade and other current receivables	(18)	399.1	390.0
Income tax receivables	(19)	9.3	5.9
Other current financial assets	(20)	3.0	4.0
Cash and cash equivalents	(21)	182.9	149.7
		959.6	953.5
		1,792.2	1,804.5
EQUITY AND LIABILITIES			
Equity			
Share capital	(22)	289.4	289.4
Group reserves	(23)	219.3	188.2
Equity attributable to shareholders of RHI AG		508.7	477.6
Non-controlling interests	(24)	15.3	13.8
		524.0	491.4
Non-current liabilities			
Non-current financial liabilities	(25)	350.6	438.0
Other non-current financial liabilities	(26)	43.5	51.3
Deferred tax liabilities	(16)	13.5	15.3
Personnel provisions	(27)	317.4	326.3
Other non-current provisions	(28)	4.5	4.3
Other non-current liabilities	(29)	6.9	7.9
		736.4	843.1
Current liabilities			
Current financial liabilities	(25)	165.1	109.6
Other current financial liabilities	(26)	6.5	8.5
Trade payables and other current liabilities	(30)	312.7	293.6
Income tax liabilities	(31)	18.4	25.3
Current provisions	(32)	29.1	33.0
		531.8	470.0
		1,792.2	1,804.5

Consolidated statement of profit or loss

from 01/01/2016 to 12/31/2016

in € million	Notes	2016	2015
Revenue	(33)	1,651.2	1,752.5
Cost of sales	(34)	(1,294.8)	(1,389.1)
Gross profit		356.4	363.4
Selling and marketing expenses	(35)	(105.2)	(112.1)
General and administrative expenses	(36)	(134.5)	(122.3)
Other income	(37)	92.3	76.0
Other expenses	(38)	(85.8)	(80.9)
Operating EBIT		123.2	124.1
Gain from derivatives from supply contracts	(57)	10.1	0.0
Loss from derivatives from supply contracts	(57)	0.0	(58.0)
Impairment losses	(39)	(8.6)	(31.2)
Income from restructuring	(40)	0.3	5.9
Restructuring costs	(41)	(8.9)	(3.3)
EBIT		116.1	37.5
Interest income	(42)	4.1	5.8
Interest expenses	(43)	(17.5)	(20.5)
Other net financial expenses	(44)	(7.8)	(4.6)
Net finance costs		(21.2)	(19.3)
Share of profit of joint ventures	(13)	10.9	9.2
Profit before income tax		105.8	27.4
Income tax	(45)	(29.9)	(9.8)
Profit after income tax		75.9	17.6
attributable to shareholders of RHI AG		74.0	16.0
attributable to non-controlling interests	(24)	1.9	1.6
in €			
Earnings per share (basic and diluted)	(54)	1.86	0.40

All items up to and including the operating EBIT do not include results from derivatives from supply contracts, impairment losses for cash-generating units and restructuring effects.

Consolidated statement of comprehensive income

from 01/01/2016 to 12/31/2016

in € million	Notes	2016	2015
Profit after income tax		75.9	17.6
Currency translation differences			
Unrealized results from currency translation	(6)	(1.9)	5.0
Deferred taxes thereon	(16)	(0.6)	(0.5)
Current taxes thereon		(1.9)	2.6
Reclassification reserves to profit or loss		(2.0)	(1.2)
Deferred taxes thereon	(16)	(0.1)	0.3
Current taxes thereon		(0.4)	0.0
Market valuation of cash flow hedges			
Unrealized results from fair value change	(57)	0.4	0.1
Deferred taxes thereon	(16)	(0.2)	0.0
Market valuation of available-for-sale financial instruments			
Unrealized results from fair value change	(56)	0.1	(1.0)
Deferred taxes thereon	(16)	0.0	0.4
Reclassification reserves to profit or loss	(56)	(0.1)	(4.2)
Deferred taxes thereon	(16)	0.0	0.3
Items that will be reclassified subsequently to profit or loss, if necessary		(6.7)	1.8
Remeasurement of defined benefit plans			
Remeasurement of defined benefit plans	(27)	(10.2)	13.1
Deferred taxes thereon	(16)	3.8	(4.4)
Share of other comprehensive income of joint ventures	(13)	(0.1)	0.0
Items that will not be reclassified to profit or loss		(6.5)	8.7
Other comprehensive income after income tax		(13.2)	10.5
Total comprehensive income		62.7	28.1
attributable to shareholders of RHI AG		60.5	25.8
attributable to non-controlling interests	(24)	2.2	2.3

Consolidated statement of cash flows

from 01/01/2016 to 12/31/2016

in € million	Notes	2016	2015
Profit after income tax		75.9	17.6
Adjustments for			
income tax		29.9	9.8
depreciation and amortization charges		65.1	69.3
impairment losses of property, plant and equipment and intangible assets		8.9	34.1
income from the reversal of investment subsidies		(1.0)	(0.9)
(reversals of impairment losses)/impairment losses on securities		(0.5)	0.6
losses/(gains) from the disposal of property, plant and equipment		0.3	(3.4)
gains from the disposal of securities and shares		(0.9)	(4.6)
losses from the disposal of subsidiaries		4.1	0.0
interest result		13.4	14.7
share of profit of joint ventures		(10.9)	(9.2)
other non-cash changes		(8.9)	63.7
Changes in			
inventories		29.0	24.5
trade receivables and receivables from long-term construction contracts		4.3	21.1
other receivables and assets		(10.0)	0.0
provisions		(25.2)	(24.4)
trade payables		26.9	0.2
prepayments received on orders ¹⁾		1.4	(7.1)
other liabilities ¹⁾		(1.5)	(2.2)
Cash flow from operating activities		200.3	203.8
Income tax paid less refunds		(37.6)	(28.4)
Net cash flow from operating activities	(48)	162.7	175.4
Cash inflows from the sale of subsidiaries net of cash		(4.6)	0.0
Investments in property, plant and equipment and intangible assets		(70.8)	(80.8)
Cash inflows from the sale of property, plant and equipment		3.5	4.8
Cash inflows from the sale of securities and shares		6.1	14.1
Dividends received from joint ventures		9.5	8.2
Investment subsidies received		0.4	0.7
Interest received		3.0	5.8
Net cash flow from investing activities	(49)	(52.9)	(47.2)
Dividend payments to shareholders of RHI AG		(29.9)	(29.9)
Dividend payments to non-controlling interests		(0.6)	(0.6)
Proceeds from non-current borrowings and loans		1.6	48.4
Repayments of non-current borrowings and loans		(29.0)	(118.6)
Changes in current borrowings		(5.8)	(3.4)
Interest payments		(17.0)	(20.3)
Net cash flow from financing activities	(50)	(80.7)	(124.4)
Total cash flow		29.1	3.8
Change in cash and cash equivalents		29.1	3.8
Cash and cash equivalents at beginning of year		149.7	151.1
Changes due to currency translation		4.1	(5.2)
Cash and cash equivalents at year-end	(52)	182.9	149.7
Total interest paid	(51)	17.5	20.8
Total interest received	(51)	3.2	5.8

1) Prior-year values adjusted to current presentation.

Consolidated statement of changes in equity

from 01/01/2016 to 12/31/2016

in € million	Share capital	Additional paid-in capital	Retained earnings
Notes	(22)	(23)	(23)
12/31/2015	289.4	38.3	284.5
Profit after income tax	-	-	74.0
Currency translation differences	-	-	-
Market valuation of cash flow hedges	-	-	-
Market valuation of available-for-sale financial instruments	-	-	-
Remeasurement of defined benefit plans	-	-	-
Share of other comprehensive income of joint ventures	-	-	-
Other comprehensive income after income tax	-	-	-
Total comprehensive income	-	-	74.0
Dividends	-	-	(29.9)
Other changes in equity	-	-	0.5
Transactions with shareholders	-	-	(29.4)
Reclassification due to disposal of defined benefit plans	-	-	1.9
12/31/2016	289.4	38.3	331.0

in € million	Share capital	Additional paid-in capital	Retained earnings
Notes	(22)	(23)	(23)
12/31/2014	289.4	38.3	307.9
Profit after income tax	-	-	16.0
Currency translation differences	-	-	-
Market valuation of cash flow hedges	-	-	-
Market valuation of available-for-sale financial instruments	-	-	-
Remeasurement of defined benefit plans	-	-	-
Other comprehensive income after income tax	-	-	-
Total comprehensive income	-	-	16.0
Dividends	-	-	(29.9)
Transactions with shareholders	-	-	(29.9)
Settlement of defined benefit plans after income tax	-	-	(5.5)
Income taxes on currency translation differences from net investments in foreign operations	-	-	(4.0)
Reclassifications	-	-	(9.5)
12/31/2015	289.4	38.3	284.5

Group reserves						
Accumulated other comprehensive income				Equity attributable to shareholders of RHI AG	Non- controlling interests	Total equity
Cash flow hedges	Available-for-sale financial instruments	Defined benefit plans	Currency translation			
(23)	(23)	(23)	(23)		(24)	
(0.9)	-	(91.9)	(41.8)	477.6	13.8	491.4
-	-	-	-	74.0	1.9	75.9
-	-	-	(7.2)	(7.2)	0.3	(6.9)
0.2	-	-	-	0.2	-	0.2
-	-	-	-	0.0	-	0.0
-	-	(6.4)	-	(6.4)	-	(6.4)
-	-	(0.1)	-	(0.1)	-	(0.1)
0.2	-	(6.5)	(7.2)	(13.5)	0.3	(13.2)
0.2	-	(6.5)	(7.2)	60.5	2.2	62.7
-	-	-	-	(29.9)	(0.7)	(30.6)
-	-	-	-	0.5	-	0.5
-	-	-	-	(29.4)	(0.7)	(30.1)
-	-	(1.9)	-	0.0	-	0.0
(0.7)	0.0	(100.3)	(49.0)	508.7	15.3	524.0

Group reserves						
Accumulated other comprehensive income				Equity attributable to shareholders of RHI AG	Non- controlling interests	Total equity
Cash flow hedges	Available-for-sale financial instruments	Defined benefit plans	Currency translation			
(23)	(23)	(23)	(23)		(24)	
(1.0)	4.5	(106.1)	(51.3)	481.7	12.2	493.9
-	-	-	-	16.0	1.6	17.6
-	-	-	5.5	5.5	0.7	6.2
0.1	-	-	-	0.1	-	0.1
-	(4.5)	-	-	(4.5)	-	(4.5)
-	-	8.7	-	8.7	-	8.7
0.1	(4.5)	8.7	5.5	9.8	0.7	10.5
0.1	(4.5)	8.7	5.5	25.8	2.3	28.1
-	-	-	-	(29.9)	(0.7)	(30.6)
-	-	-	-	(29.9)	(0.7)	(30.6)
-	-	5.5	-	0.0	-	0.0
-	-	-	4.0	0.0	-	0.0
-	-	5.5	4.0	0.0	-	0.0
(0.9)	0.0	(91.9)	(41.8)	477.6	13.8	491.4

Notes

to the consolidated financial statements 2016

PRINCIPLES AND METHODS

(1) General

RHI is a globally operating Austrian industrial group. The core activities of the RHI Group comprise the development and production as well as the sale, installation and maintenance of high-grade refractory products and systems which are used in industrial high-temperature processes exceeding 1,200 °C. RHI supplies customers in the steel, cement, lime, glass and nonferrous metals industries. In addition, RHI products are employed in the environment (waste incineration), energy (refractory construction) and chemicals (petrochemicals) sectors.

The ultimate parent undertaking of the Group is RHI AG, a stock corporation under Austrian law. The company is registered in the commercial register under the number FN 103123b at the Commercial Court of Vienna and has its legal domicile and head office in Wienerbergstraße 9, 1100 Vienna, Austria.

The shares of RHI AG are listed on the Prime Market and the lead index ATX of the Vienna Stock Exchange.

The consolidated financial statements are prepared as of the reporting date of the annual financial statements of RHI AG. The financial year of RHI AG corresponds to the calendar year. Insofar as financial years of companies included in the consolidated financial statements do not end on the reporting date of RHI AG on December 31 due to local legal requirements, interim financial statements are prepared for the purpose of consolidation. The reporting date of the Indian subsidiaries Orient Refractories Ltd., RHI Clasil Private Limited and RHI India Private Limited is March 31.

The consolidated financial statements for the period from January 1 to December 31, 2016 were drawn up pursuant to § 245a of the Austrian Commercial Code (UGB) in accordance with all International Financial Reporting Standards (IFRSs) mandatory at the time of preparation as adopted by the European Union (EU). The additional requirements of § 245a para. 1 UGB were taken into account.

The presentation in the consolidated statement of financial position distinguishes between current and non-current assets and liabilities. Assets and liabilities are classified as current if they are due within one year or within a longer normal business cycle. Inventories as well as trade receivables and trade payables are generally presented as current items. Deferred tax assets and liabilities as well as assets and provisions for pensions and termination benefits are generally presented as non-current items.

The consolidated statement of profit or loss is drawn up in accordance with the cost of sales method. Under this method, revenue is offset against the expenses incurred to generate it, which are allocated to the functions production, sales and administration.

The EBIT (earnings before interest and taxes) and the operating EBIT (EBIT adjusted for special influences) are shown separately in the statement of profit or loss as they are important key figures of measuring performance for the RHI Group. Special influences are related in particular to the measurement of individual long-term contractual obligations, effects from impairment tests at the level of cash-generating units or from restructuring due to massive capacity adjustments, significantly changed market strategies or comprehensive reorganization in administration. The presentation chosen is to convey a true view of the earnings situation, which is comparable over time, to the users of the RHI consolidated financial statements. Extraordinary effects in the current reporting year are related to the functional segment production with € (2.5) million (2015: € (86.6) million) and other expenses with € (4.6) million.

With the exception of specific items such as available-for-sale financial assets, derivative financial instruments and plan assets for defined benefit obligations, the consolidated financial statements are prepared in accordance

with the principle of historical acquisition and production costs. The measurement methods applied to the exceptions are described in the following.

The preparation of the consolidated financial statements in agreement with generally accepted accounting and valuation principles under IFRS, as adopted by the EU, requires the use of estimates and assumptions that influence the amount and presentation of assets and liabilities recognized as well as the disclosure of contingent assets and liabilities as of the reporting date and the recognition of income and expenses during the reporting period. Although these estimates reflect the best knowledge of the Management Board based on experience from comparable transactions, the actual values recognized at a later date may differ from these estimates.

All amounts in the notes and tables are shown in € million, unless indicated otherwise. For computational reasons, rounding differences may occur.

The Management Board of RHI AG completed and signed the present consolidated financial statements on March 10, 2017 and released them for distribution to the Supervisory Board. The Supervisory Board is responsible for reviewing the consolidated financial statements and for stating whether it approves the consolidated financial statements.

(2) Initial application of new financial reporting standards

In the financial year 2016, the following revised financial reporting standards including the resulting changes in other standards, which are also adopted by the EU, were applied for the first time:

Standard	Title	Publication (EU endorsement)	Mandatory application for RHI	Effects on RHI consolidated financial statements
Amendments of standards				
IAS 1	Disclosure Initiative	12/18/2014 (12/18/2015)	01/01/2016	No effect
IAS 16, IAS 38	Clarification of Acceptable Methods of Depreciation and Amortization	05/12/2014 (12/02/2015)	01/01/2016	No effect
IAS 16, IAS 41	Bearer Plants	06/30/2014 (11/23/2015)	01/01/2016	Not relevant
IAS 27	Equity Method in Separate Financial Statements	08/12/2014 (12/18/2015)	01/01/2016	Not relevant
IFRS 10, IFRS 12, IAS 28	Investment Entities: Applying the Consolidation Exception	12/18/2014 (09/22/2016)	01/01/2016	Not relevant
IFRS 11	Accounting for Acquisitions of Interests in Joint Operations	05/06/2014 (11/24/2015)	01/01/2016	No effect
Various	Annual Improvements to IFRSs 2010-2012 Cycle	12/12/2013 (12/17/2014)	01/01/2016	No effect
Various	Annual Improvements to IFRSs 2012-2014 Cycle	09/25/2014 (12/15/2015)	01/01/2016	No effect

The amendments to IAS 1 “Disclosure Initiative” are related to clarifications regarding the materiality of information in the components of the financial statements. Thus immaterial information need not be presented. This also applies when such information is required by other standards. Furthermore, new specifications regarding the presentation of subtotals and the structure of notes and notes regarding accounting principles have been added. Moreover, IAS 1 clarifies how to present shares of other comprehensive income of equity-accounted companies. RHI has maintained the reporting structure; in immaterial areas, reductions have been made.

(3) New financial reporting standards not yet applied

The IASB issued further standards, amendments to standards and interpretations, whose application is, however, not yet mandatory for the year 2016. They were not applied early on a voluntary basis.

The following accounting standards were adopted by the EU by the time of the preparation of the RHI consolidated financial statements:

Standard	Title	Publication (EU endorsement) ¹⁾	Mandatory application for RHI	Expected effects on RHI consolidated financial statements
New standards				
IFRS 9	Financial Instruments	07/24/2014 (11/22/2016)	01/01/2018	A reliable assessment of the effects is not possible at the moment.
IFRS 15	Revenue from Contracts with Customers	05/28/2014, 09/11/2015 (09/22/2016)	01/01/2018	A reliable assessment of the effects is not possible at the moment.

1) according to EU Endorsement Status Report of 02/21/2017

IFRS 9 “Financial Instruments”

IFRS 9 “Financial Instruments” includes new specifications regarding the classification and measurement of financial instruments and thus supersedes the current provisions of IAS 39 “Financial Instruments: Recognition and Measurement”.

IFRS 9 applies to financial years starting on or after January 1, 2018. At present, the RHI Group intends to initially apply the new standard IFRS 9 in the first quarter of 2018.

The classification of financial assets is on the one hand coupled with the business model of the company (hold, hold and sell, trade); on the other hand, the characteristics of the cash flows related to the financial instrument are included. In the classification of financial assets IFRS 9 distinguishes between the categories “amortized cost”, “fair value through other comprehensive income” (with or without reclassification to the statement of profit or loss) and “fair value through profit or loss”. Measurement at amortized cost is only possible if the financial asset is held within a business model whose objective is to hold the financial asset to collect the contractual cash flow. In addition, the contractual terms of the financial asset have to give rise to cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding.

For financial liabilities two measurement categories continue to exist: “amortized cost” and “fair value through profit or loss”. Financial liabilities are measured at fair value through profit or loss if they fall under the definition “held for trading” or they are designated in this measurement category at initial recognition. If the designation option is exercised, any profit or loss from changes in credit risk has to be recognized in other comprehensive income in the future.

IFRS 9 includes new impairment rules and places a strong focus on a future-oriented model of “expected credit losses”. The new rules are applicable in particular to financial assets measured at amortized cost, debt instruments on the asset side which are measured at fair value through other comprehensive income, as well as lease receivables and contract assets in accordance with IFRS 15. The general impairment model according to IFRS 9 distinguishes between three levels, with the amount of the impairment depending on the assignment of the financial instrument to one of the three levels. For financial instruments, whose credit risk has not increased significantly since initial recognition, a loss allowance has to be recognized in the amount of the credit losses whose occurrence is expected within the next 12 months (Level 1). If the credit risk has increased significantly, but there is no objective evidence of impairment, the loss allowance must be increased to the amount of the expected losses throughout the entire remaining term (Level 2). With the occurrence of objective evidence of impairment, the net carrying amount, i.e., the gross carrying amount adjusted for the loss allowance, is the decisive reference figure (Level 3). Simplified special rules exist for trade receivables as well as for contract

assets according to IFRS 15 which do not include a major financing component. In such cases, a loss allowance for full lifetime expected credit losses has to be formed at initial recognition and for the subsequent reporting dates. For trade receivables and for contract assets according to IFRS 15 which include a significant financing component as well as for lease receivables there is an option to elect the general or simplified recognition. Moreover, the new impairment rules will lead to extended disclosure requirements.

For the accounting of hedging relationships, the risk management target will be decisive in the future. The new model for hedging relationships is intended to establish a better connection between the risk management strategy, the reasons for concluding hedging transactions and hedge accounting in the financial statements. The assessment of hedge effectiveness will only be made prospectively and on a qualitative basis in the future provided that the high effectiveness can be demonstrated without a quantitative calculation. The obligation to demonstrate a minimum effectiveness within a range from 80% to 125% is replaced by a qualitative test. This test is to examine the economic correlation between the hedged item and the hedge and to ensure that the effects of the change in credit risk are not so significant that the change in value of the hedged item or the hedging instrument dominate. The designation of single risk components as hedged items is permitted under IFRS 9 insofar as the risk component can be identified independently and assessed reliably. Hedging aggregated risks or net positions is possible under IFRS 9. In addition, the disclosure requirements are extended.

The RHI Group is currently analyzing the details of the potential effects of IFRS 9. The initial application will lead to an adapted presentation of the measurement categories for financial assets as the IAS 39 measurement categories "loans and receivables" and "available-for-sale financial assets", which have so far been relevant for the Group, will be eliminated. Depending on the classification of the financial assets in the respective measurement categories of IFRS 9, an effect on measurement may result in certain cases. Due to the new rules with respect to impairment, it will be possible to expense expected losses earlier in some cases. A reliable estimate of the quantitative effects will only be possible after the completion of the detail analysis.

The classification of financial liabilities remains unchanged according to IFRS 9. Since the RHI Group has not designated any financial liabilities as fair value through profit or loss, a first preliminary evaluation does not show any effects of the application of the requirements of IFRS 9 with respect to the classification of financial liabilities.

RHI currently applies the provisions for hedge accounting for the hedging of future cash flows of financial liabilities carrying variable interest. Based on analyses performed so far, no significant effects on the accounting of such hedging relationships are expected from the initial application of IFRS 9.

IFRS 15 "Revenue from Contracts with Customers"

IFRS 15 provides uniform regulations for revenue recognition which are applicable to all contracts with customers. IFRS 15 supersedes IAS 18 "Revenue" and IAS 11 "Construction Contracts". The decisive factor for revenue recognition is no longer the transfer of significant risks and rewards, but rather, when the customer obtains power over the goods and services agreed and can benefit from them.

IFRS 15 introduces a five-step model to determine revenue recognition. According to this model, the contract with the customer and the separate performance obligations therein have to be identified. Then the transaction price must be determined and allocated to the performance obligations identified. Revenue must then be recognized separately for each performance obligation in the amount of the allocated pro-rata transaction price. For this purpose, criteria were defined which distinguish between satisfying a performance obligation either at a point in time or over time.

IFRS 15 is applicable to financial years starting on or after January 1, 2018. The RHI Group plans to apply the modified retrospective method. Under this method, IFRS 15 is applied to those contracts that are not yet complete as of January 1, 2018. The cumulative effect of the initial application will be recognized as an adjustment of the opening balance of group reserves in the item retained earnings. Currently the effects of the initial application of IFRS 15 on RHI's consolidated financial statements are being evaluated as part of a project. Based on the analyses performed so far, the possible effects are as follows:

By applying IFRS 15, additional separate performance obligations can be identified in supply contracts with customers. If contracts with customers for the delivery of products only include a single performance obligation, the Group expects that revenue is recognized when control over the asset is passed, which will consequently not result in any major effects on the consolidated financial statements.

If multiple independent performance obligations are identified in contracts with customers regarding the delivery of products, the transaction price has to be allocated to the components by reference to their relative standalone selling prices in the future. Accordingly, temporary shifts may occur in revenue recognition.

In addition to delivering products, the RHI Group also provides various services. When services represent separate performance obligations within a contract, a corresponding transaction price has to be allocated to the service component. This may influence the timing of revenue recognition. Moreover, it causes an increase in revenue from providing services at the expense of revenue from the sale of products.

In the Steel segment, multi-component contracts with variable payment arrangements are concluded in some cases. For such contracts, the transaction price depends on the customer's production performance (e.g. amount per ton of steel produced in the customer aggregate serviced). Pursuant to the current provisions on revenue recognition according to IAS 18, revenue for refractory products is recognized in the Group based on the production performance achieved by the customer. If the customer already obtains control over the refractory products with the installation of the refractory materials in the aggregate, revenue must be recognized at this time in accordance with IFRS 15. Since the consideration to be paid by the customer is completely variable, revenue in the Group must be determined on the basis of an estimate. In such cases, revenue from refractory products is recognized earlier in accordance with IFRS 15. In the consolidated statement of financial position, the receivables from the customer contract that has not yet been invoiced leads to the recognition of a contract asset. The RHI Group assumes that revenue will only be recognized earlier and thus may have an effect on the consolidated financial statements for those customer aggregates in which refractories with long service lives are applied. As far as other products or services apart from refractory products represent separate performance obligations in such multi-component contracts, a variable transaction price has to be allocated to the components by reference to their relative standalone selling prices. This may influence the timing of revenue recognition.

The initial application of IFRS 15 will lead to an adjustment of internal processes and of the IT landscape. A reliable estimate of the quantitative effects resulting from the application of the new IFRS 15 is not possible before completion of the project.

The following financial reporting standards were issued by the IASB, but had not yet been adopted by the EU at the time of the preparation of the RHI consolidated financial statements:

Standard	Title	Publication ¹⁾	Mandatory application for RHI	Expected effects on RHI consolidated financial statements
New standards and interpretations				
IFRS 14	Regulatory Deferral Accounts	01/30/2014	No EU endorsement	Not relevant
IFRS 16	Leases	01/13/2016	01/01/2019	Material effects expected
IFRIC 22	Foreign Currency Transactions and Advance Consideration	12/08/2016	01/01/2018	No effect
Amendments of standards				
IAS 7	Disclosure Initiative	01/29/2016	01/01/2017	Additional notes disclosures
IAS 12	Recognition of Deferred Tax Assets for Unrealized Losses	01/19/2016	01/01/2017	No effect
IAS 40	Transfers of Investment Properties	12/08/2016	01/01/2018	No effect
IFRS 2	Classification and Measurement of Share-based Payment Transactions	06/20/2016	01/01/2018	No effect
IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	09/12/2016	01/01/2018	Not relevant
IFRS 10, IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	09/11/2014	Postponed by EU	No effect
IFRS 15	Clarifications to IFRS 15 Revenue from Contracts with Customers	04/12/2016	01/01/2018	A reliable assessment of the effects is not possible at the moment.
Various	Annual Improvements to IFRSs 2014-2016 Cycle	12/08/2016	01/01/2017/ 01/01/2018	No effect

1) according to EU Endorsement Status Report of 02/21/2017

IFRS 16 “Leases”

The accounting standard IFRS 16, which was issued in January 2016, supersedes IAS 17 “Leases” and the related interpretations and is applicable to financial years beginning on or after January 1, 2019. Accounting for the lessor according to IFRS 16 is comparable to the current regulations. In contrast, accounting will change fundamentally for the lessee with the application of IFRS 16. In the future, most leases will have to be recognized as assets and liabilities in the statement of financial position of the lessee, regardless of whether they are considered operating or financing leases under the previous criteria of IAS 17.

According to IFRS 16, a lessee recognizes a right of use, which represents his right to use the underlying asset, and a liability from the lease, which reflects the obligation of lease payments. Exemptions are provided for short-term leases and assets of minor value. Moreover, the type of expenses related to these leases will change since IFRS 16 replaces the straight-line expenses for operating leases with a depreciation charge for rights of use and interest expenses for liabilities from the lease. In the consolidated statement of cash flows, there is a shift from cash flow from operating activities to cash flow from financing activities since the repayment of leasing liabilities must in any case be shown as cash flow from financing activities.

As a lessee, RHI can apply IFRS 16 based on the retrospective method or the modified retrospective method with optional simplification rules; the option chosen has to be applied consistently to all leases of the Group. Subject to adoption under EU law, RHI currently intends to initially apply IFRS 16 as of January 1, 2019. At present it is still undecided which transition method the Group will choose and whether the exemption options will be used.

RHI has started to assess the possible effects on the consolidated financial statements, but can currently not determine the precise effects of the application of IFRS 16 on the reported assets and liabilities. Due to the fact that obligations from rental and leasing contracts of € 66.7 million exist in the RHI Group as of December 31, 2016 (12/31/2015: € 66.0 million) (see note (61)), RHI expects a significant extension of the statement of financial position due to the initial application of IFRS 16. Together with the resulting shift between EBIT and net finance costs as well as the shift between cash flow from operating activities and financing activities, the Group expects a significant impact on the presentation of the asset, financial and earnings position.

IAS 7 “Statements of Cash Flow: Disclosure initiative”

The amendments to IAS 7 on the statement of cash flows require additional information on changes in financial liabilities. The additional information affects both cash and non-cash changes. In order to meet the new disclosure requirements, the RHI Group intends to present a reconciliation statement of financial statements at the beginning of the year and the end of the year.

(4) Group of consolidated companies

In addition to RHI AG as the parent company, the RHI consolidated financial statements include the financial statements of 77 subsidiaries (12/31/2015: 77).

As in the previous year, one joint venture is accounted for using the equity method.

Three (12/31/2015: three) subsidiaries and three (12/31/2015: four) other investments which are considered to be immaterial for the financial position and performance of the RHI Group due to their suspended or minimal business activities are not included in the consolidated financial statements.

The group of consolidated companies developed as follows:

	2016		2015	
	Full consolidation	Equity method	Full consolidation	Equity method
Number of consolidated companies				
Balance at beginning of year	78	1	80	1
Additions	2	0	0	0
Retirements and disposals	(2)	0	(2)	0
Balance at year-end	78	1	78	1

Changes in the group of consolidated companies in the reporting year 2016

On March 4, 2016, the subsidiary RHI United Offices Europe, S.L. (100%), based in Lugones, Spain, was established and included in the consolidated financial statements as of this date. On September 1, 2016, the subsidiary RHI United Offices America, S.A. de C.V. (100%), based in Monterrey, Mexico, was established. The purpose of these companies is the provision of internal administrative services.

With effect from May 12, 2016 the subsidiary RHI Rückversicherungs AG (100%) based in Vaduz, Liechtenstein, was liquidated.

As of June 6, 2016, all shares (100%) in RHI Monofrax, LLC, Wilmington, USA, were sold. The net assets disposed at the date of deconsolidation consist of the following items:

in € million	06/06/2016
Inventories	11.9
Trade and other current receivables	0.3
Cash and cash equivalents	4.6
Personnel provisions	(5.6)
Other non-current provisions	(0.7)
Trade payables and other current liabilities	(2.7)
Net assets disposed	7.8

The result from deconsolidation is determined as follows:

in € million	06/06/2016
Net assets disposed	(7.8)
Reclassification currency translation differences	3.7
Result from deconsolidation	(4.1)

The loss, taking into account the transaction-related costs of € 0.5 million incurred in the USA, was recognized under the item restructuring costs in the statement of profit or loss.

The selling price of USD 1 was paid in cash.

Changes in the group of consolidated companies in the previous year

With effect from January 1, 2015, the fully consolidated subsidiary Veitsch-Radex America Inc., Burlington, Canada, was merged with RHI Canada Inc., Burlington, Canada.

With effect from December 17, 2015, the subsidiary Magnesitwerk Aken Vertriebsgesellschaft mbH, Aken, Germany, was liquidated.

Companies of the RHI Group

The main operating companies of the RHI Group pursue the following core business activities:

Name and registered office of the company	Country of core activity	Core business activity
RHI AG, Austria	International	Sales, R&D, financing
Didier-Werke Aktiengesellschaft, Germany	Germany	Production
Magnesit Anonim Sirketi, Turkey	Turkey	Mining, production, sales
Orient Refractories Limited, India	India	Production, sales
RHI Canada Inc., Canada	Canada	Production, sales, provision of services
RHI GLAS GmbH, Germany	International	Sales
RHI Refractories (Dalian) Co., Ltd., PR China	PR China	Production
RHI US Ltd., USA	USA	Production, sales, provision of services
RHI-Refmex, S.A. de C.V., Mexico	Latin America	Sales
Veitsch-Radex GmbH & Co OG, Austria	Austria	Mining, production

The following list, which was drawn up in accordance with § 245a para. 1 UGB in conjunction with § 265 para. 2 UGB, shows all companies in which RHI holds a share of at least 20%:

Ser. no.	Name and registered office of the company	12/31/2016		12/31/2015	
		Share- holder	Share in %	Share- holder	Share in %
1.	RHI AG, Vienna, Austria				
	Fully consolidated subsidiaries				
2.	Betriebs- und Baugesellschaft mit beschränkter Haftung, Wiesbaden, Germany	7.	100.0	7.	100.0
3.	CJSC "RHI Podolsk Refractories", Moscow, Russia	27,74.	100.0	27,74.	100.0
4.	D.S.I.P.C.-Didier Société Industrielle de Production et de Constructions, Breuille, France	7.	100.0	7.	100.0
5.	Didier Belgium N.V., Evergem, Belgium	37,69.	100.0	37,69.	100.0
6.	Didier Vertriebsgesellschaft mbH, Wiesbaden, Germany	7.	100.0	7.	100.0
7.	Didier-Werke Aktiengesellschaft, Wiesbaden, Germany	1,27.	100.0	1,27.	100.0
8.	Dolomite Franchi S.p.A., Brescia, Italy	27.	100.0	27.	100.0
9.	Dutch Brasil Holding B.V., Arnhem, Netherlands	74.	100.0	74.	100.0
10.	Dutch MAS B.V., Arnhem, Netherlands	7.	100.0	7.	100.0
11.	Dutch US Holding B.V., Arnhem, Netherlands	74.	100.0	74.	100.0
12.	FE "VERA", Dnepropetrovsk, Ukraine	27.	100.0	27.	100.0
13.	Full Line Supply Africa (Pty) Ltd., Sandton, South Africa ¹⁾	47.	100.0	7.	100.0
14.	GIX International Limited, Newark, United Kingdom	79.	100.0	79.	100.0
15.	INDRESCO U.K. Ltd., Newark, United Kingdom	14.	100.0	14.	100.0
16.	INTERSTOP (Shanghai) Co., Ltd., Shanghai, PR China	73.	100.0	73.	100.0
17.	Latino America Refractories ApS, Hellerup, Denmark	79.	100.0	79.	100.0
18.	Liaoning RHI Jinding Magnesite Co., Ltd., Dashi-qiao City, PR China ²⁾	27.	83.3	27.	83.3
19.	LLC "RHI Wostok Service", Moscow, Russia	1,27.	100.0	1,27.	100.0
20.	LLC "RHI Wostok", Moscow, Russia	1,27.	100.0	1,27.	100.0
21.	Lokalbahn Mixnitz-St. Erhard Aktien-Gesellschaft, Vienna, Austria	60.	100.0	60.	100.0
22.	Magnesit Anonim Sirketi, Eskisehir, Turkey ³⁾	27.	100.0	27.	100.0
23.	Mezuba AG, Pfäffikon, Switzerland	73.	100.0	73.	100.0
24.	Orient Refractories Limited, New Delhi, India	11.	69.6	11.	69.6
25.	Premier Periclase Limited, Drogheda, Ireland	11.	100.0	11.	100.0
26.	Producción RHI México, S. de R.L. de C.V., Ramos Arizpe, Mexico	52,79.	100.0	52,79.	100.0
27.	Radex Vertriebsgesellschaft m.b.H., Leoben, Austria	76.	100.0	76.	100.0
28.	REFEL S.p.A., San Vito al Tagliamento, Italy	7.	100.0	7.	100.0
29.	Refractory Intellectual Property GmbH & Co KG, Vienna, Austria	1,30.	100.0	1,30.	100.0
30.	Refractory Intellectual Property GmbH, Vienna, Austria	1.	100.0	1.	100.0
31.	RHI Argentina S.R.L., San Nicolás, Argentina	11,79.	100.0	17,79.	100.0
32.	RHI Canada Inc., Burlington, Canada	79.	100.0	79.	100.0
33.	RHI Chile S.A., Santiago, Chile	14,79.	100.0	14,79.	100.0
34.	RHI Clasil Private Limited, Hyderabad, India ²⁾	79.	53.7	79.	53.7
35.	RHI Dinaris GmbH, Wiesbaden, Germany	69.	100.0	69.	100.0
36.	RHI Finance A/S, Hellerup, Denmark	1.	100.0	1.	100.0
37.	RHI GLAS GmbH, Wiesbaden, Germany	69.	100.0	69.	100.0
38.	RHI India Private Limited, Navi Mumbai, India	9,79.	100.0	9,79.	100.0
39.	RHI ITALIA S.R.L., Brescia, Italy	1.	100.0	1.	100.0
40.	RHI Marvo Feuerungs- und Industriebau GmbH, Gerbstedt, Germany	41.	100.0	41.	100.0
41.	RHI MARVO Feuerungs- und Industriebau GmbH, Kerpen, Germany	7.	100.0	7.	100.0
42.	RHI MARVO S.R.L., Ploiesti, Romania	27,74.	100.0	27,74.	100.0

Ser. no.	Name and registered office of the company	12/31/2016		12/31/2015	
		Share- holder	Share in %	Share- holder	Share in %
43.	RHI Monofrax, LLC, Wilmington, USA	-	-	70.	100.0
44.	RHI Normag AS, Porsgrunn, Norway	27.	100.0	27.	100.0
45.	RHI Refractories (Dalian) Co., Ltd., Dalian, PR China	27.	100.0	27.	100.0
46.	RHI Refractories (Site Services) Ltd., Newark, United Kingdom	15.	100.0	15.	100.0
47.	RHI Refractories Africa (Pty) Ltd., Sandton, South Africa ⁴⁾	27.	100.0	27.	100.0
48.	RHI Refractories Andino C.A., Puerto Ordaz, Venezuela	79.	100.0	79.	100.0
49.	RHI Refractories Asia Ltd., Hongkong, PR China	72.	100.0	72.	100.0
50.	RHI Refractories Asia Pacific Pte. Ltd., Singapore	1.	100.0	1.	100.0
51.	RHI Refractories Egypt LLC., Cairo, Egypt	27,74.	100.0	27,74.	100.0
52.	RHI Refractories España, S.L., Lugones, Spain	7,10.	100.0	7,10.	100.0
53.	RHI Refractories France SA, Breuillet, France ⁵⁾	72.	100.0	72.	100.0
54.	RHI Refractories Holding Company, Wilmington, USA	79.	100.0	79.	100.0
55.	RHI Refractories Ibérica, S.L., Lugones, Spain	72.	100.0	72.	100.0
56.	RHI Refractories Italiana s.r.l., Brescia, Italy	72.	100.0	72.	100.0
57.	RHI Refractories Liaoning Co., Ltd., Bayuquan, PR China ²⁾	27.	66.0	27.	66.0
58.	RHI Refractories Mercosul Ltda., Sao Paulo, Brazil	74,79.	100.0	74,79.	100.0
59.	RHI Refractories Nord AB, Stockholm, Sweden	72.	100.0	72.	100.0
60.	RHI Refractories Raw Material GmbH, Vienna, Austria	1,27.	100.0	1,27.	100.0
61.	RHI Refractories Site Services GmbH, Wiesbaden, Germany	7.	100.0	7.	100.0
62.	RHI Refractories UK Limited, Clydebank, United Kingdom	7.	100.0	7.	100.0
63.	RHI Refratários Brasil Ltda, Belo Horizonte, Brazil	9,79.	100.0	9,79.	100.0
64.	RHI Rückversicherungs AG, Vaduz, Liechtenstein	-	-	27.	100.0
65.	RHI Sales Europe West GmbH, Mülheim-Kärlich, Germany	7,72.	100.0	7,72.	100.0
66.	RHI Trading (Dalian) Co., Ltd., Dalian, PR China	27.	100.0	27.	100.0
67.	RHI United Offices America, S.A. de C.V., Monterrey, Mexico	52,68.	100.0	-	-
68.	RHI United Offices Europe, S.L., Lugones, Spain	52.	100.0	-	-
69.	RHI Urmitz AG & Co. KG, Mülheim-Kärlich, Germany	6,7.	100.0	6,7.	100.0
70.	RHI US Ltd., Wilmington, USA	11.	100.0	11.	100.0
71.	RHI-Refmex, S.A. de C.V., Ramos Arizpe, Mexico	52,79.	100.0	52,79.	100.0
72.	SAPREF AG für feuerfestes Material, Basel, Switzerland	79.	100.0	79.	100.0
73.	Stopinc Aktiengesellschaft, Hünenberg, Switzerland	7,27.	100.0	7,27.	100.0
74.	Veitscher Vertriebsgesellschaft m.b.H., Vienna, Austria	1.	100.0	1.	100.0
75.	Veitsch-Radex America LLC., Wilmington, USA	70.	100.0	70.	100.0
76.	Veitsch-Radex GmbH & Co OG, Vienna, Austria	1,77.	100.0	1,77.	100.0
77.	Veitsch-Radex GmbH, Vienna, Austria	1.	100.0	1.	100.0
78.	Veitsch-Radex Vertriebsgesellschaft m.b.H., Vienna, Austria	1.	100.0	1.	100.0
79.	VRD Americas B.V., Arnhem, Netherlands	1,27.	100.0	1,27.	100.0
80.	Zimmermann & Jansen GmbH, Düren, Germany	7.	100.0	7.	100.0
Subsidiaries not consolidated due to minor significance					
81.	Dr.-Ing. Petri & Co. Unterstützungsgesellschaft m.b.H., Wiesbaden, Germany	7.	100.0	7.	100.0
82.	INTERSTOP do Brasil Equipamentos Metalurgicos Ltda i.L., Barueri, Brazil	73.	100.0	73.	100.0
83.	RHI Réfractaires Algérie E.U.R.L., Sidi Amar, Algeria	53.	100.0	53.	100.0
Equity-accounted joint ventures					
84.	MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria	74,87.	50.0	74,87.	50.0

		12/31/2016		12/31/2015	
Ser. no.	Name and registered office of the company	Share- holder	Share in %	Share- holder	Share in %
Other immaterial investments, measured at cost					
85.	LLC "NSK Refractory Holding", Moscow, Russia	27.	49.0	27.	49.0
86.	LLC "NSK Refractory", Novokuznetsk, Russia	27.	49.0	27.	49.0
87.	MAGNIFIN Magnesiaprodukte GmbH, St. Jakob, Austria	74.	50.0	74.	50.0
88.	Società Dolomite Italiana SDI S.R.L. i.L., Brescia, Italy	-	-	8.	50.0

1) Formerly: RHI Refractories Africa (Pty) Ltd.

2) In accordance with IAS 32, fixed-term or puttable non-controlling interests are shown under liabilities.

3) Further shareholders are VRD Americas B.V., Lokalbahn Mixnitz St. Erhard AG and Veitscher Vertriebsgesellschaft mbH.

4) Formerly: Full Line Supply Africa (Pty) Ltd

5) Further shareholders are Didier-Werke AG, RHI Dinaris GmbH and RHI GLAS GmbH.

i.L. In liquidation

(5) Methods of consolidation

Subsidiaries

Subsidiaries are companies over which RHI AG exercises control. Control exists when the company has the power to decide on the relevant activities, is exposed to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

The acquisition method is used to account for all business combinations. Under this method, the purchase price for the shares in a consolidated subsidiary is offset against the proportional share of net assets based on the fair value of the acquired assets and liabilities at the date of acquisition or when control is obtained. Intangible assets which were previously not recognized in the separate financial statements of the company acquired are also measured at fair value. Intangible assets identified when a company is acquired, including for example patents, brand names and customer relations, are only measured separately at the time of acquisition if they are identifiable and are in the control of the company and a future economic benefit is expected.

For the acquisition of companies in which less than 100% of the shares are acquired, IFRS 3 allows an accounting policy choice whereby either goodwill proportionate to the share held or goodwill including the share accounted for by non-controlling interests can be recognized. This accounting policy choice can be exercised anew for any company acquisition.

The measurement at the date of acquisition can be made on a preliminary basis in justified cases. If adjustments are necessary in favor or at the expense of assets and liabilities within twelve months of the acquisition, they will be made accordingly. These adjustments are presented in the notes.

The goodwill determined is allocated to the relevant cash-generating unit and tested for impairment at this level. In accordance with the provisions of IFRS 3, negative goodwill is immediately recognized to profit or loss in other income after renewed measurement of the identifiable assets, liabilities and contingent liabilities.

Shares in net assets of subsidiaries that are not attributable to RHI AG are shown separately under equity as non-controlling interests. The basis for non-controlling interests are the equity of the subsidiary concerned after adjustment to the accounting and measurement principles of the RHI Group and proportional consolidation entries.

Transaction costs which are directly related to business combinations are expensed as incurred. Conditional components of the purchase price are recorded at fair value at the date of initial consolidation.

When additional shares are acquired in companies which are already included in the consolidated financial statements as subsidiaries, the difference between the purchase price and the proportional carrying amount in the subsidiary's net assets is offset against shareholders' equity. Gains and losses from the sale of shares are also recorded in equity unless they lead to a loss of the controlling influence.

In the case of a step acquisition and the related obtaining of a controlling interest, the difference between the carrying amount and the fair value at the date of the initial full consolidation is realized through profit or loss.

Intragroup receivables and liabilities as well as income and expenses are fully eliminated.

Intragroup results related to intragroup deliveries of non-current assets and inventories as well as transfers of shares are eliminated.

In accordance with IAS 12, deferred taxes are calculated on temporary differences arising from the consolidation.

Subsidiaries are deconsolidated on the day control ends.

Joint ventures

Shares in joint ventures are accounted for using the equity method. A joint venture is a joint arrangement between the RHI Group and one or several other partners whereby the parties that have joint control over the arrangement have rights to the net assets of the arrangement.

At the date of acquisition, a positive difference between the acquisition costs and the share in the fair values of identified assets and liabilities of the joint venture is determined and recognized as goodwill. Goodwill is shown under the item shares in joint ventures in the statement of financial position.

The acquisition cost of investments accounted for using the equity method is increased or decreased each year to reflect the change in the equity of the individual joint venture that is attributable to the RHI Group. Unrealized intragroup results from transactions with these companies are offset against the carrying amount of the investment on a pro-rata basis during consolidation, if they are material.

RHI examines at every reporting date whether there are objective indications of an impairment of the shares in the joint ventures. If such indications exist, the required impairment is determined as the difference between the recoverable amount and the carrying amount of the joint venture and recognized in profit and loss in the item share of profit of joint ventures. If the reasons for a previously recognized impairment cease to exist, a reversal of impairment is recognized in profit or loss with the exception of goodwill.

The financial statements of the companies accounted for using the equity method are prepared in accordance with uniform accounting and measurement methods throughout the Group.

(6) Foreign currency translation

Functional currency and presentation currency

The consolidated financial statements are presented in euro, which represents the functional and presentation currency of RHI AG.

The items included in the financial statements of each Group company are valued based on the currency of the primary economic environment in which the company operates (functional currency).

Foreign currency transactions and balances

Foreign currency transactions in the individual financial statements of Group companies are translated into the functional currency based on the exchange rate in effect on the date of the transaction. Gains and losses arising from the settlement of such transactions and the measurement of monetary assets and liabilities in foreign currencies at the closing rate are recognized in profit or loss under other income or expenses. Contrary to this, unrealized currency translation differences from monetary items which form part of a net investment in a foreign business are recognized in other comprehensive income in equity. Non-monetary items in foreign currency are carried at historical rates.

Group companies

The annual financial statements of foreign subsidiaries that have a functional currency differing from the Group presentation currency are translated into euros as follows:

Assets and liabilities are translated at the closing rate on the reporting date of the Group, while monthly income and expenses and consequently the profit for the year as presented in the statement of profit or loss are translated at the respective closing rates of the previous month. Differences resulting from this translation process and differences resulting from the translation of amounts carried forward from the prior year are recorded under other comprehensive income without recognition to profit or loss. Monthly cash flows are translated at the respective closing rates of the previous month. Goodwill and adjustments to the fair value of assets and liabilities related to the purchase price allocations of a subsidiary outside the European currency area are recognized as assets and liabilities of the respective subsidiary and translated at the closing rate.

The euro exchange rates of currencies important for the RHI Group are shown in the following table:

Currencies	1 € =	Closing rate		Average rate ¹⁾	
		12/31/2016	12/31/2015	2016	2015
Brazilian real	BRL	3.42	4.33	3.90	3.64
Pound sterling	GBP	0.86	0.74	0.81	0.73
Chilean peso	CLP	700.25	773.96	748.21	724.89
Chinese renminbi yuan	CNY	7.31	7.09	7.32	6.98
Indian rupee	INR	71.43	72.35	74.31	71.33
Canadian dollar	CAD	1.42	1.52	1.47	1.41
Mexican peso	MXN	21.77	19.00	20.48	17.56
Norwegian krone	NOK	9.09	9.62	9.31	8.94
Swiss franc	CHF	1.08	1.08	1.09	1.07
South African rand	ZAR	14.33	17.00	16.40	14.02
US dollar	USD	1.05	1.09	1.11	1.11

1) Arithmetic mean of the monthly closing rates

(7) Principles of accounting and measurement

Property, plant and equipment

Property, plant and equipment is measured at acquisition or production cost, less accumulated depreciation on a systematic basis and impairments. These assets are depreciated on a straight-line basis over the expected useful life. Depreciation is calculated pro rata temporis beginning in the month the asset is available for use, i.e. when the asset is at its designated location and ready for operations as intended by management.

Leased property, plant and equipment that qualifies as asset purchase financed with long-term funds is capitalized at the market value of the asset or the lower present value in accordance with IAS 17. The leased assets are depreciated on a systematic basis over the useful life. The payment obligations resulting from future lease instalments are discounted and recorded as liabilities. Current lease payments are apportioned between a finance charge and the amortization of the outstanding liability. As of the reporting date, the property, plant and equipment leased through finance leases is of small scale. All other leases are treated as operating leases. The lease payments resulting from operating leases are recorded as expenses.

The production costs of internally generated assets comprise direct costs as well as a proportional share of capitalizable production overheads and borrowing costs. If financing can be specifically allocated to an investment, the actual borrowing costs are capitalized as production costs. If no direct connection can be made, the average rate on borrowed capital of the Group is used as the capitalization rate due to the central funding of the Group.

Expected demolition and disposal costs at the end of an asset's useful life are capitalized as part of acquisition cost and recorded as a provision. The criteria for this treatment are a legal or constructive obligation towards a third party and the ability to prepare a reliable estimate.

Real estate, land and plant under construction are not depreciated on a systematic basis. Depreciation of other material property, plant and equipment is based on the following useful lives in the RHI Group:

Factory and office buildings	15 to 50 years
Land improvement	8 to 30 years
Crusher machines and mixing facilities	8 to 20 years
Presses	10 to 12 years
Tunnel, rotary and shaft kilns	50 years
Other calcining and drying kilns	20 to 30 years
Cars, other plant, furniture and fixtures	3 to 35 years

The residual carrying amounts and economic useful lives are reviewed regularly and adjusted if necessary.

Depletion is recorded on raw material deposits of the volume actually mined in proportion to the estimated volume.

When components of plant or equipment have to be replaced at regular intervals, the relevant replacement costs are capitalized as incurred if the criteria set forth in IAS 16 have been met. The carrying amount of the replaced components is derecognized. Regular maintenance and repair costs are expensed as incurred.

Gains or losses from the disposal of property, plant and equipment, which result as the difference between the net realizable value and the carrying amount, are recognized as income or expense in the statement of profit or loss.

Goodwill

Goodwill is recognized as an asset in accordance with IFRS 3. It is tested for impairment at least once each year, or when events or a change in circumstances indicate that the asset could be impaired.

In accordance with IFRS 3, negative goodwill is recognized through profit or loss immediately after a new assessment of the identified assets, liabilities and contingent liabilities.

Other intangible assets

Research costs are expensed in the year incurred and included under general and administrative expenses.

Development costs also represent expenses in the period. They are recognized under general and administrative expenses. They are only capitalized if the allocable costs of the intangible asset can be measured reliably during its development period. Moreover, capitalization requires that the product or process development can be clearly defined, is feasible in technical, economic and capacity terms and is intended for own use or sale. In addition, future cash inflows which cover not only normal costs but also the related development costs must be expected. Capitalized development costs are amortized on a straight-line basis over the expected useful life, however, over a maximum of ten years, and recognized in cost of sales.

The development costs for internally generated software are expensed as incurred if their primary purpose is to maintain the functionality of existing software. Expenses that can be directly and conclusively allocated to individual programs and represent a significant extension or improvement over the original condition of the software are capitalized as production costs and added to the original purchase price of the software. These direct costs include the personnel expenses for the development team as well as an adequate, proportional share of overheads. Software is predominantly amortized on a straight-line basis over a period of four years.

Purchased intangible assets are measured at acquisition cost, which also includes acquisition-related costs, less accumulated amortization and impairments. Intangible assets with a finite useful life are amortized on a straight-line basis over the expected period of useful life. The following table shows the most important useful lives:

Patents	7 to 18 years
Brand rights	20 years
Land use rights	50 or 65 years
Customer relations	6 years

Impairment of property, plant and equipment, goodwill and other intangible assets

Property, plant and equipment and intangible assets, including goodwill, are tested for impairment if there is any indication that the value of these items may be impaired. Intangible assets with an indefinite useful life and goodwill are tested for impairment at least annually.

An asset is considered to be impaired if its recoverable amount is less than the carrying amount. The recoverable amount of an asset is the higher of its fair value less costs of disposal and its value in use (present value of future cash flows). If the carrying amount is higher than the recoverable amount, an impairment loss equivalent to the resulting difference is recognized in the statement of profit or loss. If the reason for an impairment loss recognized in the past for property, plant and equipment and for other intangible assets ceases to exist, a reversal of impairment on the amortized acquisition and production costs is recognized to profit or loss.

In the case of impairments related to cash-generating units (CGU) which contain goodwill, existing goodwill is initially reduced. If the required impairment exceeds the carrying amount of the goodwill, the difference is apportioned proportionately to the remaining non-current tangible and intangible assets of the CGU. Reversals of impairment losses recognized on goodwill are not permitted and are therefore not considered. The effects of impairment tests at the CGU level are shown separately in the statement of profit or loss.

If there is an indication for an impairment of a specific asset, only this specific asset will be tested for impairment. The recoverable amount is determined through fair value. If the fair value is lower than the carrying amount, an impairment loss is recorded in the operating EBIT or, in the case of restructuring, in the restructuring costs.

Cash-generating units (CGU)

In the RHI Group the individual assets do not generate cash inflows independent of one another; therefore, no recoverable amount can be presented for individual assets. As a result, the assets are combined in CGUs, which largely generate independent cash inflows. These units are combined in strategic business units and reflect the market presence and the market appearance and are as such responsible for cash inflows.

The organizational structures of the Group reflect these units. In addition to the joint management and control of the business activities in each unit, the sales know-how, the knowledge of RHI products and, as an important added value, the combination of this specific technical knowledge and the technical services provided to customers are also incorporated in these units. The sales know-how is reflected in long-standing customer relationships or knowledge of the customer's production facilities and processes. Product knowledge is manifested in the application-oriented knowledge of chemical, physical and thermal properties of RHI products. The services offered extend over the life cycle of RHI products at the customer's plant, from the appropriate installation and support of optimal operations, to environmentally sound disposal with the customer or the sustainable reuse in RHI's production process. These factors determine cash inflow to a significant extent and consequently form the basis for the CGU structures of RHI.

The CGUs of the strategic business unit Steel are Linings and Flow Control. These two units are determined according to the production stages in the process of steel production.

In the Industrial Division, each industry segment (cement/lime, nonferrous metals and environment, energy, chemicals) with the exception of glass forms a separate CGU. The glass segment and the related plants were also considered to be one CGU up to and including 2014. In the year 2015, the Management Board of the RHI Group decided to initiate a structured selling process for the Falconer plant of the US subsidiary RHI Monofrax, LLC. Consequently, the related cash flows were assessed for this plant and it was treated as a separate CGU Industrial/Monofrax. It was sold to the German private equity fund Callista and deconsolidated in the second quarter of 2016.

The global market environment in the glass industry is still characterized by low willingness to invest, high excess capacities and progressing market consolidation in the USA and Europe. As part of the plant concept, the Management Board of the RHI Group is evaluating whether a structured selling process will be initiated for another two companies or they continue to operate within the Group. These two companies are REFEL S.p.A., based in Italy, and CJSC "RHI Podolsk Refractories", based in Russia. In this context, the related cash flows for these plants were determined, which enables a separate consideration. Therefore, the plants of the subsidiaries REFEL S.p.A. and CJSC "RHI Podolsk Refractories" are presented as a separate CGU "Industrial/Fused Cast" in the impairment test 2016, removed from the CGU Industrial/Glass.

In the Raw Materials Division, all raw material producing facilities with the exception of Norway are combined in one CGU. The plant in Porsgrunn, Norway, was not included in the raw materials unit, but treated as a separate CGU because a management team was installed specifically for the coordination and implementation of the optimization measures due to the dimension and the special situation at the Porsgrunn plant. This organization goes beyond plant management and also includes sub-tasks of the administration processes.

The business units of the RHI Group to which cash flows are allocated are shown in the table below:

RHI Group			
Steel		Industrial	Raw Materials
CGU	Linings	Glass	Raw Materials Production
	Flow Control	Fused Cast	Norway
		Cement/Lime	
		Nonferrous Metals	
		Environment, Energy, Chemical	
		Monofrax (deconsolidated 2016)	

As in the previous year, the impairment test is based on the value in use; the recoverable amount is determined using the discounted cash flow method and incorporates the terminal value. The detailed planning of the first five years is congruent with the strategic business and financial planning. Based on the detailed planning period, it is geared to a steady-state business development, which balances out possible economic or other non-sustainable fluctuations in the detailed planning period and forms the basis for the calculation of the terminal value. In the impairment test 2016 the terminal value is based on a growth rate derived from the difference of the current and the possible degree of utilization of the assets.

The net cash flows are discounted using the weighted average cost of capital (WACC). The weighted average cost of capital is calculated taking into account comparable companies (peer group); the corresponding parameters are derived from capital market information. In addition, country-specific risk premiums are considered in the weighted average cost of capital.

The weighted average cost of capital before tax is determined per legal unit and weighted according to the share of revenue of the legal units. The weighted interest rates range between 6.4% and 8.0% in the year 2016. In the previous year, the interest rates determined on the same basis ranged between 6.3% and 9.7%.

Composition of estimated future cash flows

The estimates of future cash flows include forecasts of the cash flows from continued use. If assets are disposed at the end of their useful life, the related cash flows are also included in the forecasts.

A simplified statement of cash flows serves to determine the cash flows on the basis of strategic business and financial planning. The forecasts include cash flows from future maintenance investments. Expansion investments are only taken into account in the future cash flows when there has been a significant cash outflow or significant payment obligations have been entered into due to services received and it is sufficiently certain that the investment measure will be completed. All other expansion investments are not considered; this applies in particular to expansion investments that have been decided on but not begun.

Future cash flows from financing and for income taxes are generally not included. For reasons of practicability, the expected cash flows also include tax payments, therefore the values in use are determined using an after-tax weighted average cost of capital. The after-tax weighted average cost of capital is iteratively reconciled to an implicit pre-tax weighted average cost of capital, which is indicated in the notes. If the result before tax is negative in the detailed planning period, tax inflows (tax refunds) are considered regardless of whether tax loss carryforwards exist.

With respect to pension obligations, a differentiation is made between earned entitlements and entitlements yet to be earned. Provisions for pensions do not reduce the carrying value of a CGU; accordingly, pension payouts are not included in the recoverable amounts. Expected additions to provisions for pensions are considered cash-effective with respect to service cost. The interest expense related to pension obligations represents a financing expense and is consequently not considered in the forecast of cash flows.

Working capital is included in the carrying amount of the CGU; therefore, the recoverable amount only takes into account changes in working capital.

Basis for Planning

CGU Steel/Linings

The basis for strategic market planning is the forecast for world steel production, which is prepared by an independent institution (CRU, London, United Kingdom). This forecast is analyzed by experts in the RHI Group and, if necessary, revised and adjusted for internal analyses and evaluations. As in the previous year, RHI assumed a more conservative development of the global steel market for strategic business planning in the year 2016. This results in moderate annual average volume growth of 0.7% in the detailed planning period, with the price level remaining stable. The cost items are planned in detail for the first year of the detailed planning period taking into account cost developments for the individual types of costs at the respective sites, and adjusted for the other years in accordance with the estimates available. Overall, this leads to a gross operating margin between 19.4% and 20.0% in the planning period. As in 2015, the planning does not take into account expansion investments in 2016. As in the previous year, goodwill of € 9.4 million is allocated to the CGU Steel/Linings as of December 31, 2016. The relevant capital costs before tax amount to 7.6% (12/31/2015: 9.5%) and the assumed growth for the terminal value is 0.9% (12/31/2015: 0.3%). An increase in the interest rate by 41%, combined with a 40% reduction of profitability and a reduction of the growth rate to 0.0% would have the effect that the recoverable amount corresponds exactly to the carrying amount of this unit.

CGU Steel/Flow Control

The forecast for world steel production is also the basis for strategic market planning in the CGU Steel/Flow Control. The CGU Steel/Flow Control builds on the same strategic marketing planning of world steel production as the CGU Steel/Linings. In this unit, RHI expects increasing revenue growth with an annual growth rate of 3.5% in the detailed planning period, with the growth being driven primarily by the development in India and the increasing demand for specialized customer solutions. Cost planning is carried out the same way as in the CGU Steel/Linings. The gross operating margin resulting from revenue and cost planning ranges between 23.9% and 24.4% in the detailed planning period. This year's planning also does not include expansion investments. At December 31, 2016, goodwill of € 27.1 million (12/31/2015: € 26.7 million) is allocated to the CGU Steel/Flow Control, as well as an intangible asset of indefinite useful life of € 1.8 million, unchanged compared with the previous year. This asset is related to a brand name that has been acquired. The Group plans to continue using this brand name without a change. A weighted average cost of capital before tax of 8.0% (12/31/2015: 9.7%) was applied. The growth assumed for the terminal value amounts to 0.9% (12/31/2015: 0.3%). In this unit, an increase in the interest rate by 10%, combined with a 14% reduction of profitability, as well as reduction of the growth rate of to 0.0% would cause the recoverable amount to correspond precisely to the carrying amount of this unit.

CGU Raw Materials/Norway

This unit comprises the activities of the plant in Porsgrunn, Norway. At this site, RHI produces high-grade fused magnesia, which represents an important pillar in the strategic raw material supply of the Group. As raw material prices have dropped significantly in the past, the company's high-grade products stand in direct competition with the products available in the market. External purchases are thus possible at any time and the company's own production is adjusted accordingly. Increasing demand in the area of marketing intermediate products and by-products was taken into account in strategic planning. Production costs for the first year in the detailed planning period are planned for every single phase in the production process for individual cost types and subsequently adjusted for the following years in accordance with the defined plan of measures. In the CGU Raw Materials/Norway, a weighted average cost of capital before tax of 6.5% (12/31/2015: 7.3%) was applied. The growth rate assumed for the terminal value amounts to 0.9% (12/31/2015: 0.3%).

CGU Industrial/Glass

As in the previous year, the market of the CGU Industrial/Glass is characterized by global excess capacities in the area of non-basic products. Nevertheless, RHI assumes in the planning period that investments in the glass industry will now increase after the subdued investment activities of the past years and that an increasing number of projects will consequently be won in the medium term, especially in the flat glass segment. However, this slight increase in volume will be compensated by longer service lives/repairs. Here, RHI will continue to grow in the area of service and repairs. All of this will lead to annual revenue growth of 3.2% in the detailed planning period, with constant volumes and generally stable prices. In the CGU Industrial/Glass, the cost items for the first year of the detailed planning period are also planned taking into account cost developments for the individual types of cost at the respective sites and adjusted for the subsequent years in accordance with existing estimates. Consequently, average gross margins between 19.8% and 21.1% are realized in the long term. A weighted average cost of capital before tax of 7.0% (12/31/2015: 8.9%) was applied. The growth assumed for the terminal value amounts to 0.9% (12/31/2015: 0.3%).

CGU Industrial/Fused Cast

Since 2016, the plants in San Vito, Italy, and Sherbinska in Russia have been presented as a separate CGU and have thus been removed from the CGU Industrial/Glass. These plants produce fused cast products. The weighted average cost of capital before tax applied amounts to 6.4%. The growth rate assumed for the terminal value amounts to 0.9%.

Result of impairment test

Based on the impairment test conducted in the financial year 2016, the recoverability of the assets was demonstrated in all CGUs with the exception of the CGU Raw Materials/Norway and the CGU Industrial/Fused Cast.

The carrying amount of the CGU Raw Materials/Norway was already fully written down in the previous years. The recoverable amount of the CGU Raw Materials/Norway was determined on the basis of a value in use and is negative as of December 31, 2016 as in the previous year. In 2015 an impairment loss of € 23.2 million was recognized for the CGU Raw Materials/Norway, of which € 10.4 million was related to buildings, € 7.7 million to technical plant and machinery and € 5.1 million to other plant, furniture and fixtures.

The amount recognized in the item impairment losses in the statement of profit or loss for the CGU Industrial/Fused Cast amounts to € 8.0 million, of which land and buildings account for € 3.7 million, technical plant and machinery for € 2.9 million, other plant, furniture and fixtures for € 1.0 million, plant under construction to € 0.3 million and intangible assets for € 0.1 million. The recoverable amount of this CGU was determined on the basis of the value in use and is negative as of December 31, 2016. In the previous year, the CGU Industrial/Fused Cast was included in the CGU Industrial/Glass.

In the year 2015, the impairment losses for the former CGU Industrial/Monofrax amounted to € 8.0 million, of which land and buildings accounted for € 1.5 million, technical plant and machinery for € 5.3 million, other plant, furniture and fixtures for € 0.8 million, plant under construction to € 0.2 million and intangible assets for € 0.2 million.

As in the previous year, no reversals of impairments were made in the financial year 2016.

Other financial assets and liabilities

Financial assets and liabilities are initially recognized when the Group becomes a party to the contractual provisions of a financial instrument. Financial assets are derecognized when the contractual rights to payments from the financial assets no longer exist or significant risks and rewards related to the ownership of the financial assets are transferred. Financial liabilities are derecognized when the contractual obligations are settled, withdrawn or have expired.

The item other financial assets in the consolidated statement of financial position of RHI includes shares in non-consolidated subsidiaries and other investments, securities, financial receivables and positive fair values of derivative financial instruments.

The item other financial liabilities includes negative fair values of derivative financial instruments.

Shares in non-consolidated subsidiaries, investments in other companies and securities are classified entirely as “available for sale” in the RHI Group. Available-for-sale financial assets are initially measured at fair value including any related transaction expenses. Subsequent measurement reflects fair value, with changes in fair value being recorded in other comprehensive income. The accumulated gains and losses from fair value measurement that are recorded under other comprehensive income are reclassified to the statement of profit or loss with the disposal of the financial assets. Impairments are charged to profit or loss. Impairment losses on equity instruments recognized to profit and loss are reversed through other comprehensive income. Reversals of impairment for debt instruments are recognized to profit and loss. Available-for-sale financial assets of minor significance are measured at cost. If there are indications that fair value is lower, the lower value is recognized.

Financial receivables are measured at amortized cost applying the effective interest method. Any doubt concerning the collectability of the receivables is reflected in the use of the lower present value of the expected future cash flows. Foreign currency receivables are translated at the closing rate.

Derivative financial instruments, which are not part of an effective hedging relationship in accordance with IAS 39, must be classified as held for trading in accordance with IFRS and measured at fair value through profit or loss. In the RHI Group, this measurement category includes derivatives related to purchase obligations, forward exchange contracts as well as embedded derivatives in open orders that are denominated in currencies other than the functional currency.

Derivative financial instruments relating to purchase obligations concern a long-term power supply contract which provides for the purchase of fixed amounts of electricity at fixed prices and for which the so-called own-use exemption (exemption for own use in accordance with IAS 39.5) was for the first time not applied anymore in the consolidated financial statements 2015. The measurement is made taking into account quoted electricity prices in the futures market. Based on the fixed amounts of electricity, the cash flows for the entire term of the contract are initially determined as the difference between forward rates and contractually fixed prices and discounted at the reporting date using a cost of borrowing rate corresponding to the term. The measurement effects resulting from this electricity derivative are shown as gain or loss from derivatives from supply contracts in the statement of profit or loss.

The measurement of forward exchange contracts and embedded derivatives in open orders denominated in a currency other than the functional currency is made on a case-by-case basis at the respective forward rate on the reporting date. These forward rates are based on spot rates, and also include forward premiums and discounts. Unrealized valuation gains or losses and results from the realization are recognized to the statement of profit or loss under other income or expenses. The underlying transactions for the derivatives are carried at amortized cost.

For derivative financial instruments, which are incorporated in an effective hedging relationship in accordance with IAS 39, the provisions regarding hedge accounting are applied. RHI has concluded derivative financial instruments in the form of interest rate swaps to protect the cash flow risk of financial liabilities carrying variable interest. The hedging transactions are shown as part of cash flow hedge accounting. The interest rate swaps as hedging instruments are measured at fair value, which corresponds to the amount which RHI would receive or have to pay on the reporting date when the financial instrument is terminated. The fair value is calculated using the interest rates and yield curves relevant on the reporting date. The effective part of the fair value changes is initially recorded in other comprehensive income as an unrealized gain or loss. Only at the time of the realization of the underlying transaction, the contribution of the hedging instrument is shown in the statement of profit or loss. Ineffective parts of the fair value changes of cash flow hedges are recognized immediately in the statement of profit or loss.

Deferred taxes

Deferred taxes are recognized on temporary differences between the tax base and the IFRS carrying amount of assets and liabilities, tax-loss carryforwards and consolidation entries.

Deferred tax assets are recognized on temporary differences insofar as it is probable that sufficient deferred tax liabilities exist or that sufficient taxable income before the reversal of temporary differences is available for the settlement of deductible temporary differences in the planning period of five years.

Deferred taxes are recognized on temporary differences relating to shares in subsidiaries and joint ventures, unless the parent company is in a position to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse. No temporary differences are recognized for financial instruments which were issued by subsidiaries to non-controlling interests and which are classified as a financial liability in accordance with IFRS.

The RHI Group accounts for deferred tax assets for unused tax loss carryforwards to the extent that it is probable that a taxable income will be available within the planning period of five years, against which the loss carryforwards can be used.

The calculation of deferred taxes is based on the tax rate expected in the individual countries at the time of realization and generally reflects the enacted or substantively enacted tax rate on the reporting date. As in the previous year, deferred taxes of the Austrian Group companies are determined at the corporation tax rate of 25%. Tax rates from 12.5% to 37.9% (12/31/2015: 9.0% to 37.6%) were applied to foreign companies.

Deferred tax assets and liabilities are offset if there is an enforceable right to offset current tax receivables against current tax liabilities, and if the deferred taxes are due from/to the same tax authorities.

Inventories

Inventories are stated at acquisition or production cost, or at net realizable value as of the reporting date. The determination of acquisition cost of purchased inventories is based on the moving average price method. Finished goods and work in process are valued at fixed and variable production cost. The net realizable value is the estimated selling price in the ordinary course of business minus any estimated cost to complete and to sell the goods. Impairments due to reduced usability are reflected in the calculation of the net realizable value.

Long-term construction contracts

Construction contracts are accounted for using the percentage of completion method if the criteria defined in IAS 11 have been met.

Under the percentage of completion method, production costs incurred plus an appropriate mark-up for profit based on the stage of completion are recognized under receivables from construction contracts and under revenue. The stage of completion is based on the expenses incurred as a percentage of the expected total expenses for the contract. Any expected losses on a contract are covered by provisions, which also reflect identifiable risks. Prepayments received from customers are deducted from contract receivables. Any resulting negative balance on a construction contract is recorded as a liability from construction contracts.

Trade and other current receivables

Receivables are initially measured at fair value and subsequently carried at amortized cost minus any valuation allowances. These valuation allowances are determined on an individual basis and reflect any recognizable risk of default. Specific cases of default lead to the derecognition of the relevant receivables.

Receivables denominated in foreign currencies are translated using the closing rate.

Emission certificates

Emission certificates acquired for a consideration are carried at cost and recognized to profit and loss in cost of sales when used up, written down to fair value or sold. In the case of a shortfall, a provision is recognized equivalent to the fair value of the lacking emission certificates.

Emission certificates allocated free of charge are not accounted for. Proceeds from the sale of these rights are recognized under revenue.

Cash and cash equivalents

Cash on hand, checks received and cash at banks with an original term of a maximum of three months are shown under cash and cash equivalents. Moreover, shares in money market funds, which are only exposed to insignificant value fluctuations due to their high credit rating and investments in extremely short-term money market instruments and can be converted to defined cash amounts within a few days at any time, are also recorded under cash equivalents under IAS 7.

Cash and cash equivalents denominated in foreign currencies are translated at the closing rate.

Financial liabilities

Liabilities to financial institutions

Liabilities to financial institutions are measured at fair value less directly attributable transaction costs at initial recognition. In subsequent measurements these liabilities are measured at amortized cost applying the effective interest method. Liabilities to financial institutions in foreign currency are translated at the closing rate.

Liabilities to fixed-term or puttable non-controlling interests

Capital shares of non-controlling interests in subsidiaries with a fixed term are recognized under financial liabilities in the consolidated statement of financial position in accordance with IAS 32. The liabilities are measured at amortized cost. The share of profit attributable to non-controlling interests is recognized under interest expenses in the statement of profit or loss. Dividend payments to non-controlling interests reduce liabilities.

Furthermore, the RHI Group has entered into purchase obligations with non-controlling shareholders of a subsidiary. Based on these agreements, the shareholders receive the right to tender their shares at any time on previously defined conditions. In this case, IAS 32 provides for carrying a liability in the amount of the probable future exercise price. The difference between the estimated liability and the carrying amount of the non-controlling interest was recognized to equity at the time of the initial recognition without affecting profit or loss. Subsequently, the liability is measured at amortized cost and changes are recorded in net finance costs.

Provisions

Provisions are recognized when the Group incurs a legal or constructive obligation as a result of past events, and it is probable that an outflow of resources will be required to meet this obligation, and the amount of the obligation can be reliably estimated.

Non-current provisions are measured at their discounted settlement value as of the reporting date if the discount effect is material.

If maturities cannot be estimated, they are shown under current provisions.

Provisions for pensions

With respect to post-employment benefits, a differentiation is made between defined contribution and defined benefit plans.

Defined contribution plans limit the company's obligation to the agreed amount of contributions to earmarked pension plans. The related expenses are shown in the functional areas and thus in EBIT. No provisions are necessary.

Defined benefit plans require the company to provide the agreed amount of benefits to active and former employees and their dependents, with a differentiation made between pension systems financed through provisions and pension systems financed by funds.

For pension plans financed through external funds, the pension obligation according to the projected unit credit method is netted out against the fair value of the plan assets. If the plan assets are not sufficient to cover the obligation, the net obligation is recognized under provisions for pensions. However, if the plan assets exceed the obligations, the asset recognized is limited to reductions of future contribution payments to the plan and is shown under other non-current assets.

The present value of defined benefit obligations for current pensions, future pension benefits and similar obligations and the related expenses are calculated separately for each plan annually by independent qualified actuaries in accordance with the provisions of IAS 19. The present value of future benefits is based on the length of service, expected wage/salary developments and pension adjustments.

The expense to be recognized in a period includes the current and past service costs, settlement gains and losses, interest expenses from the interest accrued on obligations, interest income from plan assets and administration costs paid from plan assets. The net interest expense is shown separately in net finance costs. All other expenses related to defined benefit plans are allocated to the costs of the relevant functional areas.

Actuarial assumptions are required to calculate these obligations, above all the interest rate used for discounting, but also the rates of increases in wages/salaries and pensions as well as the retirement starting age and probability of employee turnover and actual claims. The calculation is based on local biometric parameters.

Interest rates chosen on the basis of the interest on high-quality corporate bonds issued with adequate maturities and currencies are applied to determine the present value of pension obligations. In countries where there is no sufficiently liquid market for high-quality corporate bonds, the returns on government bonds are used as a basis.

The rates of increase for wages/salaries were based on an average of past years, which is also considered to be realistic for the future.

The fluctuation probabilities were estimated specific to age or according to seniority.

The retirement age used for the calculation is based on the respective statutory provisions of the country concerned. The calculation is based on the earliest possible retirement age according to the current statutory provisions of the respective country, among other things depending on gender and date of birth.

For pension commitments that limit claims to the amount of plan assets, the present value of the obligation equals the total amount of plan assets.

Remeasurement gains and losses are recorded net of deferred taxes under other comprehensive income in the period incurred.

Provisions for termination benefits

Provisions for termination benefits are primarily related to obligations to employees whose employment is subject to Austrian law.

Employees who joined an Austrian company before December 31, 2002 receive a one-off lump-sum termination benefit as defined by Austrian labor legislation if the employer terminates the employment relationship or when the employee retires. The amount of the termination payment depends on the relevant salary at the time of the termination as well as the number of years of service and ranges between two and twelve monthly salaries. These obligations are measured in accordance with IAS 19 using the projected unit credit method applying an accumulation period of 25 years. Remeasurement gains and losses are recorded directly to other comprehensive income after considering tax effects and shown in the statement of comprehensive income.

For employees who joined an Austrian company after December 31, 2002, employers are required to make regular contributions equal to 1.53% of the monthly wage/salary to a statutory termination benefit scheme. The company has no further obligations. Claims by employees to termination benefits are filed with the statutory termination benefit scheme, while the regular contributions are treated like defined contribution pension plans and included under personnel expenses of the functional areas.

Other personnel provisions

Other personnel provisions include provisions for service anniversary bonuses, payments to semi-retirees, share-based payments and lump-sum settlements.

Service anniversary bonuses are one-time special payments that are dependent on the employee's wage/salary and length of service. The employer is required by collective bargaining agreements or company agreements to make these payments after an employee has reached a certain number of uninterrupted years of service with the same company. Obligations related to service anniversary bonuses exist in Austrian and German Group companies. Under IAS 19 service anniversary bonuses are treated as other long-term employee benefits. Provisions for service anniversary bonuses are calculated based on the projected unit credit method. Remeasurement gains or losses are recorded in the personnel costs of the functional areas in the period incurred.

Local labor laws and other similar regulations require individual Group companies to create provisions for semi-retirement obligations. The obligations are partially covered by qualified plan assets and are reported on a net basis in the statement of financial position.

For cash-settled share-based payments for the members of the Management Board of RHI AG, a provision is recorded for the services received and measured at fair value on the date of receipt. Until the debt is settled, its fair value is recalculated at each reporting date and on the settlement date. All changes in fair value are recognized to profit or loss in general and administrative expenses.

Obligations for lump-sum settlements are based on company agreements in individual companies.

Provisions for warranties

Provisions for warranties are created for individual contracts at the time of the sale of the goods concerned, or after a service has been provided. The amounts of the provisions are based on the expected or actual warranty claims.

Provisions for restructuring

Provisions for restructuring are created insofar as a detailed formal restructuring plan has been developed and announced prior to the reporting date or whose implementation was commenced prior to the reporting date.

Trade payables and other current liabilities

These liabilities are initially recognized at fair value, and subsequently measured at amortized cost.

Liabilities denominated in foreign currencies are translated at the closing rate.

Government grants

Government grants to promote investments are recognized as deferred income and released through profit or loss over the useful life of the relevant asset distributed on a straight-line basis.

Grants that were granted as compensation for expenses or losses are recognized to profit or loss in the periods in which the subsidized expenses are incurred. In the RHI Group, they mainly include grants for research and employee development. Grants for research are recorded as income in general and administrative expenses.

Revenue and expenses

Revenue comprises the sale of products and services less rebates and other sales deductions.

Revenue is realized when ownership and risk are transferred to the customer or when a service is performed, the consideration has been contractually defined or can otherwise be determined and the RHI Group can therefore expect to collect the related receivable. If formal acceptance by the customer is agreed, the related revenue is only recognized after this acceptance has been received.

Revenue on construction contracts is realized according to the percentage of completion method, if the requirements of IAS 11 have been met.

Expenses are recognized to the statement of profit or loss when a service is consumed or the costs are incurred.

Interest income and expenses are recognized in accordance with the effective interest method.

Dividends from investments that are not accounted for using the equity method are recognized to profit and loss at the time the legal claim arises.

Income taxes are recognized according to the local regulations applicable to each company. Current and deferred income taxes are recognized in the statement of profit or loss unless they are related to items which were recorded directly in equity or in other comprehensive income. In such a case, income taxes are also recorded in equity or other comprehensive income.

Since the financial year 2005, RHI AG has headed a corporate tax group in accordance with § 9 KStG (Austrian Corporation Tax Act). A tax compensation agreement has been in force since January 1, 2016 between the head of the group and seven Austrian group members. Prior to that, profit and loss transfer agreements were in place. According to the group and tax compensation agreement, the members of the group have to pay a positive tax compensation of 20% of the taxable profit to the head of the group if the result is positive, as long as tax loss carry forwards exist with the head of the group; subsequently 25% of the taxable profit have to be paid. In the case of a tax loss of the group member, the head of the group has to pay a negative tax compensation to the member of the group, with a rate of 12.5% being applied if the loss can be utilized within the group. In the case of a loss in the tax group, a tax loss of a group member is retained and offset against future taxable profits of the group member. When the contract is terminated, a compensation payment is agreed for unused tax losses of a group member, which are allocated to the head of the group.

In Germany, Didier-Werke Aktiengesellschaft, Wiesbaden, acts as the head of a tax corporation group. The seven subsidiary companies are obliged to transfer their profit or loss to Didier-Werke Aktiengesellschaft based on a profit and loss transfer agreement.

(8) Segment reporting

The RHI Group comprises the operating segments Steel, Industrial and Raw Materials. This segmentation of the business activities is geared to internal control and reporting.

The segmentation into Steel and Industrial represents a grouping by the main customer industries. The Steel segment specializes in supporting customers in the steel-producing and steel-processing industry. The Industrial segment serves customers in the glass, cement/lime, nonferrous metals and environment, energy, chemicals industries. The main activities of the two segments consist of market development, global sales of high-grade refractory bricks, mixes and special products as well as providing services at the customers' sites.

The operating activities of the segment Raw Materials primarily consist of supplying Group companies with raw materials. This includes mining magnesite and dolomite in mines owned by the Group and raw material production based on seawater, processing and finishing raw materials as well as purchasing and selling raw materials. Within the Group, raw materials are carried at market price. The globally located manufacturing sites, which process the raw materials, are combined in one organizational unit. The allocation of manufacturing cost variances of the production plants to the Steel and Industrial Divisions is based on the supply flow.

The research activities of the RHI Group are managed centrally. R&D costs are allocated directly to the three segments.

The Shared Service Center costs of the Group are allocated to the three operating segments according to the agreed Service Level Agreements. The allocation of expenses of Group management is based on external revenue.

Statements of profit or loss up to EBIT are available for each segment. The operating EBIT (EBIT adjusted for special effects) serves the Management Board of the RHI Group for internal management and as an indicator of sustainable earnings power of a business as presented in the statement of profit or loss. The profit of joint ventures is allocated to the segments. Net finance costs and income taxes are managed on a group basis and are not allocated.

Segment assets include trade receivables and inventories, which are available to the operating segments and are reported to the management for control and measurement, as well as property, plant and equipment, goodwill and other intangible assets, which are allocated to the segments based on the capacity of the assets provided to the segments. Investments in joint ventures are allocated to the segments. All other assets are not allocated. The recognition of segment assets is determined on the basis of the accounting and measurement methods applied to the IFRS consolidated financial statements.

Data on revenue by country are disclosed by the sites of the customers. Data on non-current assets (property, plant and equipment and intangible assets) are disclosed on the basis of the respective locations of the companies of the RHI Group.

(9) Discretionary decisions, assumptions and estimates

The RHI Group used forward-looking assumptions and estimates, especially with respect to business combinations, non-current assets, valuation adjustments to inventories and receivables, provisions and income taxes to a certain extent in the application of accounting and measurement methods.

The estimates are based on comparable values in the past, plan data and other findings regarding transactions to be accounted. The actual values may ultimately deviate from the assumptions and estimates made. The resulting changes in value of assets, liabilities, revenue and expenses are accounted for in the reporting period in which the change is made and in the affected future reporting periods.

Business combinations (initial consolidation)

Estimates relating to the calculation of fair values of acquired assets, liabilities and contingent liabilities are required within the context of business combinations.

If intangible assets are identified, discretionary estimates are necessary for the determination of fair values by means of discounted cash flows, especially regarding the duration and amount of future cash flows, as well as for the determination of an adequate discount rate. When determining the fair value of land, buildings and technical plant, above all the estimate of comparability of the reference objects with the objects subject to valuation is discretionary.

When making discretionary decisions in the context of purchase price allocations on major company acquisitions, RHI consults with independent experts who accompany the execution of the discretionary decisions and record it in expert documents.

Impairment of intangible assets with finite useful lives and property, plant and equipment

Intangible assets with a finite useful life and property, plant and equipment must be tested for impairment when events or a change in circumstances indicate that the carrying amount of an asset may not be recoverable. The carrying amounts of these assets amounted to € 591.1 million at December 31, 2016 (12/31/2015: € 604.6 million). In accordance with IAS 36, such impairment losses are determined through comparisons with the discounted future cash flows expected from the related assets of the cash-generating units (CGU).

As part of the annual planning process, the impairment test is conducted for the CGUs defined in the RHI Group, thus taking into account all changes resulting from updates of strategic planning. Sensitivity analyses are also performed as part of the impairment test. In their calculation one of the main parameters is changed as follows: increase in the discount rate by 10%, reduction in the form of the contribution margin by 10% and reduction of the growth rate in terminal value by 50%. In all CGUs these simulations do not result in impairments.

Likewise, in all CGUs a reduction of the discount rate by 10%, an increase in profitability in the form of the contribution margin by 10% and an increase in the growth rate in terminal value by 50% do not result in reversals impairments. For the carrying amount of the impaired CGU Industrial/Glass, the sensitivity analysis at December 31 of the previous year shows the following results:

in € million	Change in assumption	Impairment loss	Change in assumption	Reversal of impairment loss
Discount rate	+10%	(7.8)	(10)%	3.9
Profitability	(10)%	(8.6)	+10%	3.9
Growth rate	(50)%	(1.4)	+50%	1.8

Impairment of goodwill

The effect of an adverse change by plus 10% in the estimated interest rates as of December 31, 2016 or by minus 10% in the contribution margin would not result in an impairment charge to the goodwill recognized (carrying amount 12/31/2016: € 37.8 million, 12/31/2015: € 37.5 million).

Impairment of other intangible assets with indefinite useful life

The effect of an adverse change by plus 10% in the estimated interest rate as of December 31, 2016 or by minus 10% in the contribution margin would not result in an impairment charge to intangible assets with indefinite useful lives recognized (carrying amount at 12/31/2016 and 12/31/2015: € 1.8 million).

Provisions for pensions and termination benefits

The present value of pension and termination benefit obligations depends on a number of factors, which are based on actuarial assumptions such as interest rates, future salary and pension increases as well as life expectancy. Due to the long-term orientation of these obligations, these assumptions are subject to significant uncertainties.

The following sensitivity analysis shows the change in present value of the pension and termination benefit obligations if one key parameter changes, while the other influences are maintained constant. In reality, however, it is rather unlikely that these influences do not correlate. The present value of the pension obligations for the sensitivities shown was calculated using the same method as for the actual present value of the pension obligations (projected unit credit method).

in € million	Change of assumption in percentage points or years	12/31/2016		12/31/2015	
		Pension plans	Termination benefits	Pension plans	Termination benefits
Present value of the obligations	-	289.2	58.5	304.9	60.1
Interest rate	+0.25	(7.6)	(1.6)	(8.0)	(1.6)
	(0.25)	8.0	1.6	8.4	1.6
Salary increase	+0.25	0.6	1.5	0.6	1.5
	(0.25)	(0.6)	1.4	(0.6)	(1.4)
Pension increase	+0.25	5.0	-	5.0	-
	(0.25)	(4.9)	-	(4.8)	-
Life expectancy	+1 year	12.9	-	10.8	-
	(1) year	(13.2)	-	(10.7)	-

These changes would have no immediate effect on the result of the period as remeasurement gains and losses are recorded in other comprehensive income without impact on profit or loss.

The assumptions regarding the interest rate are reviewed quarterly; all other assumptions are reviewed at the end of the year.

Other provisions

The recognition and measurement of other provisions totaling € 33.6 million (12/31/2015: € 37.3 million) were based on the best possible estimates using the information available at the reporting date. The estimates take into account the underlying legal relationships and are performed by internal experts or, when appropriate, also by external experts. Despite the best possible assumptions and estimates, cash outflows expected at the reporting day may deviate from actual cash outflows. As soon as additional information is available, the estimates made are reviewed and provisions are also adjusted.

Income taxes

The calculation of income taxes of RHI AG and its subsidiaries is based on the tax laws applicable in the individual countries. Due to their complexity, the tax items presented in the financial statements may be subject to deviating interpretations by local finance authorities.

When determining the amount of the capitalizable deferred tax claims, an estimate of the management is required regarding the amount of future taxable income and the expected time. Should the future taxable profit deviate by 10% from the assumption made on the reporting date within the planning period defined for the accounting and measurement of deferred taxes, the net position of deferred tax assets amounting to € 131.3 million (12/31/2015: € 130.8 million) would have to be increased by € 1.8 million (12/31/2015: € 1.0 million) or reduced by € 1.7 million (12/31/2015: € 0.6 million).

Other items

With respect to the other items of the statement of financial position, RHI currently assumes that no material effects on the financial position and performance would result for the following financial years due to changes in the estimates and assumptions.

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

(10) Property, plant and equipment

Property, plant and equipment developed as follows in the year 2016 and in the previous year:

in € million	Real estate, land and buildings	Raw material deposits	Technical equipment, machinery	Other plant, furniture and fixtures	Prepayments made and plant under construction	Total
Cost at 12/31/2015	448.0	31.8	877.0	286.3	49.2	1,692.3
Currency translation	0.2	0.0	(6.0)	(0.2)	(0.1)	(6.1)
Disposals of consolidated companies	(4.2)	0.0	(15.4)	(2.3)	0.0	(21.9)
Additions	5.9	0.3	13.7	7.6	32.8	60.3
Retirements and disposals	(5.3)	0.0	(11.0)	(4.2)	(0.7)	(21.2)
Reclassifications	9.1	0.0	19.6	7.0	(37.4)	(1.7)
Cost at 12/31/2016	453.7	32.1	877.9	294.2	43.8	1,701.7
Accumulated depreciation 12/31/2015	282.1	24.2	633.5	220.1	0.2	1,160.1
Currency translation	0.9	0.0	(3.9)	0.5	0.0	(2.5)
Disposals of consolidated companies	(4.2)	0.0	(15.4)	(2.3)	0.0	(21.9)
Depreciation charges	7.8	0.3	32.3	14.3	0.0	54.7
Impairment losses	4.0	0.0	2.9	1.0	0.9	8.8
Retirements and disposals	(5.1)	0.0	(10.1)	(4.0)	0.0	(19.2)
Reclassifications	0.1	0.0	0.0	0.0	(0.2)	(0.1)
Accumulated depreciation 12/31/2016	285.6	24.5	639.3	229.6	0.9	1,179.9
Carrying amounts at 12/31/2016	168.1	7.6	238.6	64.6	42.9	521.8

in € million	Real estate, land and buildings	Raw material deposits	Technical equipment, machinery	Other plant, furniture and fixtures	Prepayments made and plant under construction	Total
Cost 12/31/2014	441.1	31.8	863.1	280.7	43.2	1,659.9
Currency translation	0.0	0.0	6.8	1.1	0.1	8.0
Additions	4.0	0.0	14.9	9.6	48.3	76.8
Retirements and disposals	(3.4)	0.0	(33.8)	(13.9)	(0.1)	(51.2)
Reclassifications	6.3	0.0	26.0	8.8	(42.3)	(1.2)
Cost at 12/31/2015	448.0	31.8	877.0	286.3	49.2	1,692.3
Accumulated depreciation 12/31/2014	263.8	23.9	615.0	212.9	0.1	1,115.7
Currency translation	(1.2)	0.0	2.2	(0.1)	0.0	0.9
Depreciation charges	9.4	0.3	34.2	15.0	0.0	58.9
Impairment losses	13.3	0.0	14.5	5.9	0.2	33.9
Retirements and disposals	(3.2)	0.0	(32.6)	(13.5)	0.0	(49.3)
Reclassifications	0.0	0.0	0.2	(0.1)	(0.1)	0.0
Accumulated depreciation 12/31/2015	282.1	24.2	633.5	220.1	0.2	1,160.1
Carrying amounts at 12/31/2015	165.9	7.6	243.5	66.2	49.0	532.2

The additions to property, plant and equipment include capitalized borrowing costs of € 0.4 million (2015: € 0.3 million). The average capitalization rate amounted to 1.5% in the financial year 2016 (2015: 1.5%).

The item prepayments made and plant under construction includes plant under construction with a carrying amount of € 41.7 million (12/31/2015: € 48.4 million), with the modification of the smelter at the site in Radenthein, Austria, representing the largest investment project under construction of the financial year 2016.

As in the previous year, there are no restrictions on the sale of property, plant and equipment.

(11) Goodwill

Goodwill developed as follows:

in € million	2016	2015
Cost at beginning of year	40.1	38.6
Currency translation	0.1	1.5
Cost at year-end	40.2	40.1
Accumulated impairment at beginning of year	(2.6)	(2.5)
Currency translation	0.2	(0.1)
Accumulated impairment at year-end	(2.4)	(2.6)
Carrying amount at year-end	37.8	37.5

(12) Other intangible assets

Other intangible assets changed as follows in the financial year 2016:

in € million	Internally generated intangible assets	Other intangible assets	Total
Cost at 12/31/2015	42.2	130.5	172.7
Currency translation	(0.2)	(0.2)	(0.4)
Disposals of consolidated companies	(1.1)	(1.5)	(2.6)
Additions	5.0	1.0	6.0
Retirements and disposals	0.0	(17.5)	(17.5)
Reclassifications	0.0	1.7	1.7
Cost at 12/31/2016	45.9	114.0	159.9
Accumulated amortization 12/31/2015	25.5	73.0	98.5
Currency translation	(0.3)	0.1	(0.2)
Disposals of consolidated companies	(1.1)	(1.5)	(2.6)
Amortization charges	3.5	6.9	10.4
Impairment losses	0.1	0.0	0.1
Retirements and disposals	0.0	(17.5)	(17.5)
Reclassifications	0.0	0.1	0.1
Accumulated amortization 12/31/2016	27.7	61.1	88.8
Carrying amounts at 12/31/2016	18.2	52.9	71.1

Other intangible assets changed as follows in the previous year:

in € million	Internally generated intangible assets	Other intangible assets	Total
Cost 12/31/2014	37.7	130.5	168.2
Currency translation	0.1	4.9	5.0
Additions	4.7	1.1	5.8
Retirements and disposals	(0.3)	(7.2)	(7.5)
Reclassifications	0.0	1.2	1.2
Cost at 12/31/2015	42.2	130.5	172.7
Accumulated amortization 12/31/2014	22.3	71.9	94.2
Currency translation	0.1	1.1	1.2
Amortization charges	3.2	7.2	10.4
Impairment losses	0.2	0.0	0.2
Retirements and disposals	(0.3)	(7.2)	(7.5)
Accumulated amortization 12/31/2015	25.5	73.0	98.5
Carrying amounts at 12/31/2015	16.7	57.5	74.2

Internally generated intangible assets comprise capitalized software and product development costs.

Other intangible assets include in particular acquired patents, trademark rights, software, customer relations of the Indian company Orient Refractories Ltd. and land use rights. The land use rights have a carrying amount of € 23.4 million (12/31/2015: € 24.0 million) and a remaining useful life of 30 to 61 years.

As in the previous year, there are no restrictions on the sale of intangible assets.

(13) Investments in joint ventures

As in the previous year, the RHI Group holds a share of 50% in MAGNIFIN Magnesiaprodukte GmbH & Co KG, a company based in St. Jakob, Austria. The company's core business activity is the production and sale of halogen-free flame retardants for plastics. The investment in MAGNIFIN is treated as a financial investment.

MAGNIFIN is set up as an independent vehicle. RHI has a residual interest in the net assets of the company and accordingly classified its share as a joint venture. The share for which no listed market price is available is accounted for using the equity method in the RHI consolidated financial statements.

MAGNIFIN generated revenue amounting to € 40.0 million in the financial year 2016 (2015: € 37.8 million). Profit before income tax amounts to € 20.9 million (2015: € 18.1 million) and includes depreciation charges on property, plant and equipment and amortization charges on intangible assets of € 1.7 million (2015: € 2.0 million), interest income of € 0.0 million (2015: € 0.1 million) and interest expenses of € 0.3 million (2015: € 0.3 million).

Total comprehensive income including other comprehensive income before income tax of € (0.3) million (2015: € 0.0 million) amounts to € 20.6 million (2015: € 18.1 million).

Income taxes on the share of profit of MAGNIFIN amounting to € 2.8 million (2015: € 2.4 million) are recognized by the head of the tax group, RHI AG, due to the legal form of the joint venture and transferred to Veitscher Vertriebsgesellschaft m.b.H. in accordance with the provisions of the tax compensation agreement.

The net assets of MAGNIFIN at the two reporting dates are shown in the table below:

in € million	12/31/2016	12/31/2015
Non-current assets	9.9	8.0
Current assets (without cash and cash equivalents)	12.9	11.7
Cash and cash equivalents	16.7	17.2
Non-current personnel provisions	(4.0)	(3.9)
Current provisions	(1.1)	(1.1)
Trade payables and other current liabilities	(3.2)	(3.2)
Net assets	31.2	28.7

The development of the carrying amount of the share in this joint venture in the RHI consolidated financial statements is shown below:

in € million	2016	2015
Proportional share of net assets at beginning of year	14.4	13.4
Share of profit	10.9	9.2
Share of other comprehensive income (remeasurement losses)	(0.1)	0.0
Dividends received	(9.5)	(8.2)
Other changes in value	(0.1)	0.0
Proportional share of net assets at year-end	15.6	14.4
Goodwill	4.9	4.9
Carrying amount of investments in joint ventures	20.5	19.3

(14) Other non-current financial assets

Other non-current financial assets consist of the following items:

in € million	12/31/2016	12/31/2015
Available-for-sale investments	0.4	0.5
Available-for-sale securities and shares	15.8	20.9
Other non-current financial receivables	2.7	2.3
Other non-current financial assets	18.9	23.7

At December 31, 2016 accumulated impairments on investments, securities and shares of € 2.0 million (12/31/2015: € 2.5 million) are recognized.

(15) Other non-current assets

Other non-current assets include the following items:

in € million	12/31/2016	12/31/2015
Stripping costs	8.3	10.1
Receivables from other taxes	6.7	5.3
Plan assets from overfunded pension plans	2.1	2.1
Prepaid expenses	0.6	0.5
Other non-current assets	17.7	18.0

Prepaid expenses for stripping costs arising from mining raw materials in a surface mine are shown in non-current assets due to the planned use of the mine.

Receivables from other taxes are related to input tax credits, which are expected to be utilized in the medium term.

(16) Deferred taxes

The net position of deferred taxes of the Group, derived from items of the statement of financial position, is calculated as follows:

in € million	12/31/2016	12/31/2015
Deferred tax assets	144.8	146.1
Deferred tax liabilities	(13.5)	(15.3)
Net position	131.3	130.8

The following table shows the development of the Group's net position:

in € million	2016	2015
Net position at beginning of year	130.8	113.6
Currency translation	1.9	(1.5)
Changes recognized in profit or loss	(3.0)	23.6
Tax rate changes recognized in profit or loss	(1.3)	(1.0)
Changes recognized in other comprehensive income	2.9	(3.9)
Net position at year-end	131.3	130.8

The change in net position classified according to the type of temporary differences and tax loss carryforwards is shown below:

in € million	Tax loss carryforwards	Non-current assets	Personnel provisions	Other provisions	Inventories, other	Total
12/31/2015	71.6	(16.3)	51.9	3.1	20.5	130.8
Currency translation	1.1	0.9	(0.4)	0.0	0.3	1.9
Changes recognized in profit or loss	(11.0)	0.2	(2.6)	0.1	10.3	(3.0)
Tax rate changes recognized in profit or loss	0.2	(1.0)	0.0	0.0	(0.5)	(1.3)
Changes recognized in other comprehensive income	(0.1)	0.0	3.8	0.0	(0.8)	2.9
12/31/2016	61.8	(16.2)	52.7	3.2	29.8	131.3

in € million	Tax loss carryforwards	Non-current assets	Personnel provisions	Other provisions	Inventories, other	Total
12/31/2014	68.0	(24.1)	58.3	4.0	7.4	113.6
Currency translation	(0.3)	(1.9)	(0.1)	0.0	0.8	(1.5)
Changes recognized in profit or loss	2.8	11.1	(1.9)	(0.9)	12.5	23.6
Tax rate changes recognized in profit or loss	0.2	(1.4)	0.0	0.0	0.2	(1.0)
Changes recognized in other comprehensive income	0.9	0.0	(4.4)	0.0	(0.4)	(3.9)
12/31/2015	71.6	(16.3)	51.9	3.1	20.5	130.8

As of December 31, 2016, subsidiaries which generated tax losses in the past year or the previous year recognized net deferred tax assets on temporary differences and on tax loss carryforwards of € 32.3 million (12/31/2015: € 21.4 million). These assets are considered to be unimpaired because the companies concerned are expected to generate taxable income in the future. This assessment is based on measures implemented in

2016, which will lead to an increase in taxable income in the future. On the one hand, a subsidiary was sold; on the other hand, the financing of a subsidiary was optimized.

Tax loss carryforwards totaled € 383.7 million in the RHI Group as of December 31, 2016 (12/31/2015: € 420.4 million). A significant portion of the tax loss carryforwards originates in Austria and can be carried forward indefinitely. The annual offset of the Austrian tax loss carryforwards is limited to 75% of the respective tax profit. No deferred taxes were recognized for tax loss carryforwards of € 156.9 million (12/31/2015: € 144.1 million). The main part of the non-capitalized tax losses can be carried forward indefinitely. € 25.8 million (12/31/2015: € 10.7 million) will lapse at the earliest in the year 2022 if not used by then.

In addition, no deferred tax assets were recognized for temporary differences totaling € 2.2 million (12/31/2015: € 3.7 million) as it is not sufficiently probable that they can be used. The deductible temporary differences can be carried forward indefinitely.

Taxable temporary differences of € 109.3 million (12/31/2015: € 100.4 million) were not recognized on shares in subsidiaries because the corresponding distributions of profit or the sale of the investments are not expected in the foreseeable future.

The maturity structure of deferred taxes is shown in the table below:

in € million	12/31/2016			12/31/2015		
	Current	Non-current	Total	Current	Non-current	Total
Deferred tax assets	39.0	105.8	144.8	27.7	118.4	146.1
Deferred tax liabilities	0.0	13.5	13.5	0.1	15.2	15.3

(17) Inventories

Inventories as presented in the statement of financial position consist of the following items:

in € million	12/31/2016	12/31/2015
Raw materials and supplies	74.5	78.3
Unfinished products and unfinished services	99.4	120.3
Finished products and goods	184.9	197.2
Prepayments made	6.5	8.1
Inventories	365.3	403.9

The inventories recognized as of December 31, 2016 totaled € 365.3 million (12/31/2015: € 403.9 million), of which € 2.7 million (12/31/2015: € 4.0 million) are carried at net realizable value.

The impairment losses recorded in the financial year 2016, netted out against reversals of impairment losses, amount to € 1.1 million. In the previous year, reversals of impairment losses, netted out against impairment losses, amounting to € 2.6 million had to be recognized due to higher turnover rates compared with 2014 and the commissioning of facilities for the recovery of magnesite fine tailings and the related utilization of existing raw materials deposits.

As in the previous year, there are no restrictions on the disposal of inventories.

(18) Trade and other current receivables

Trade and other current receivables as presented in the statement of financial position are classified as follows:

in € million	12/31/2016	12/31/2015
Trade receivables	309.0	304.4
Receivables from long-term construction contracts	7.8	15.7
Receivables from other taxes	65.9	49.7
Prepaid expenses	2.8	2.6
Receivables from joint ventures	1.0	1.6
Receivables employees	0.8	1.0
Receivables from personnel welfare foundation	0.8	0.8
Other current receivables	11.0	14.2
Trade and other current receivables	399.1	390.0
thereof financial assets	312.1	308.4
thereof non-financial assets	87.0	81.6

Receivables from long-term construction contracts consist of the following components:

in € million	12/31/2016	12/31/2015
Contract costs incurred up to the reporting date	10.0	24.1
Profits recognized by the reporting date	0.8	1.1
Prepayments received	(3.0)	(9.5)
Receivables from long-term construction contracts	7.8	15.7

Receivables from other taxes include input tax credits and receivables from energy tax refunds, research, education and apprentice subsidies.

As in the previous year, trade receivables with a total nominal value of € 34.0 million were assigned for financial liabilities as of December 31, 2016.

Accumulated valuation allowance to trade and other current receivables developed as follows:

in € million	2016	2015
Accumulated valuation allowance at beginning of year	30.1	25.8
Currency translation	0.4	0.4
Addition	7.4	8.6
Use	(0.3)	(0.5)
Reversal	(2.4)	(4.2)
Accumulated valuation allowance at year-end	35.2	30.1

(19) Income tax receivables

Income tax receivables amounting to € 9.3 million (12/31/2015: € 5.9 million) are mainly related to tax prepayments and deductible withholding taxes.

(20) Other current financial assets

This item of the statement of financial position consists of the following components:

in € million	12/31/2016	12/31/2015
Derivatives in open orders	1.1	2.3
Forward exchange contracts	0.4	0.0
Other current financial receivables	1.5	1.7
Other current financial assets	3.0	4.0

(21) Cash and cash equivalents

This item of the statement of financial position consists of the following components:

in € million	12/31/2016	12/31/2015
Cash at banks	179.9	149.3
Money market funds	0.4	0.0
Checks	2.5	0.3
Cash on hand	0.1	0.1
Cash and cash equivalents	182.9	149.7

(22) Share capital

The fully paid-in capital of RHI AG amounts to € 289,376,212.84. As in the previous year, it consists of 39,819,039 zero par value bearer shares. One share grants a rounded calculated share of € 7.27 in capital stock, as in the previous year. All shares grant the same rights.

The shareholders are entitled to payment of the dividend adopted and generally have one voting right per share at the Annual General Meeting. There are no RHI shares with special control rights. No limitations regarding the voting rights of RHI shares, including from agreements between shareholders, are known to the company, with the exception of the voting rights of MSP Foundation.

At March 10, 2017, the following investors with significant shareholdings were known to RHI: MSP Foundation, a foundation under Liechtenstein law, directly holds and its founder, Martin Schlaff, indirectly holds more than 25% via MSP Foundation of the voting rights of RHI AG. Pursuant to the stipulations of the Austrian Takeover Act, a limitation of voting rights of 26% applies. In addition, Chestnut Beteiligungsgesellschaft mbH and Silver Beteiligungsgesellschaft mbH each hold more than 5% of the voting rights. The voting rights of Chestnut Beteiligungsgesellschaft mbH and Silver Beteiligungsgesellschaft mbH are jointly exercised; consequently, the joint share in voting rights held by the two companies exceed 10%.

Employee stock ownership plan "4 plus 1"

With a resolution of the Annual General Meeting of RHI AG on May 4, 2016, the Management Board was authorized in accordance with § 65 para. 1 (4) as well as para. 1a and para. 1b AktG to acquire, during a period of validity of 30 months starting on May 4, 2016, up to 12,000 no-par bearer shares of the company by purchasing such shares both on an exchange and by off-market transactions, in each case at the stock exchange price of the day this authorization is exercised. The acquisition cannot be effected for the purpose of trading in treasury shares. The authorization may be exercised in full or in part or even in several tranches by the company, by a subsidiary (§ 228 para. 3 UGB) or for the account of the company by third parties. The Management Board of RHI AG can decide to purchase such shares on an exchange, but the Supervisory Board subsequently has to be informed of this decision. The off-market acquisition of shares is subject to prior approval by the Supervisory Board. In accordance with § 65 para. 1b AktG the Management Board was authorized for a period of five years starting on May 4, 2016 to adopt another type of sale than on an exchange or via public offer for the sale or use of treasury shares, with the consent of the Supervisory Board, applying the provisions regarding the exclusion of

shareholders' subscription rights mutatis mutandis, and to determine the conditions of the sale. This authorization may be exercised fully or partially or in several partial amounts by the company, a subsidiary (§ 228 para. 3 UGB) or for the account of the company by third parties for the purpose of carrying out an employee stock ownership program for employees and executives of RHI AG as well as members of the management, executives and employees of Group companies of RHI AG as part of the continuation of the voluntary employee stock ownership plan "4 plus 1". Employees receive one RHI share free of charge for four RHI shares they have purchased themselves. In the year 2016, 7,998 (2015: 7,294) shares were acquired over the stock exchange for the employee stock ownership plan and issued to employees. As of December 31, 2016 and December 31, 2015, no treasury shares were held by RHI AG.

Authorized capital 2015

The Management Board was authorized by resolution of the Annual General Meeting of RHI AG on May 8, 2015, in accordance with § 169 AktG (Stock Corporation Act), to increase share capital with the consent of the Supervisory Board until May 7, 2020 by up to another € 57,875,236.75 by issuing up to 7,963,807 new ordinary bearer shares (no par shares) for a cash contribution – also in several tranches – and to determine the issue price, the issue conditions and further details regarding the execution of the capital increase in agreement with the Supervisory Board, to offer the new shares to shareholders by means of indirect subscription rights in accordance with § 153 para. 6 AktG if need be. By December 31, 2016 no capital increase of share capital out of the authorized capital was carried out.

(23) Group reserves

Additional paid-in capital

Additional paid-in capital comprises premiums on the issue of shares and convertible bonds by RHI AG and has not changed in comparison with December 31, 2015. The difference to the additional paid-in capital as shown the financial statements of RHI AG is attributable to deviating regulations in the Austrian Commercial Code with respect to the accounting of convertible bonds. Due to legal regulations, additional paid-in capital cannot be distributed and can only be reversed to cover losses.

Retained earnings

The item retained earnings includes the result of the financial year and results that were earned by consolidated companies during prior periods, but not distributed. Distributable profit and dividends are generally related to the accumulated profit of RHI AG, which is determined in accordance with Austrian commercial law.

Accumulated other comprehensive income

The item cash flow hedges includes gains and losses from the effective part of cash flow hedges less tax effects. The accumulated gain or loss from the hedge allocated to reserves is only reclassified to the statement of profit or loss if the hedged transaction also influences the result or is terminated.

Unrealized fair value changes of available-for-sale securities and shares in other investments are recognized in the item available-for-sale financial instruments. Deferred tax effects are deducted, unless gains from the sale of these financial instruments are treated as tax free under the applicable tax law.

The item defined benefit plans includes the gains and losses from the remeasurement of defined benefit pension and termination benefit plans taking into account tax effects. No reclassification of these amounts to the statement of profit or loss will be made in future periods.

Currency translation includes the accumulated currency translation differences from translating the financial statements of foreign subsidiaries as well as unrealized currency translation differences from monetary items which are part of a net investment in a foreign operation, net of related income taxes. If foreign companies are deconsolidated, the currency translation differences are recognized in the statement of profit or loss as part of the gain or loss from the sale of shares in subsidiaries. In addition, when monetary items which are part of a net investment in a foreign operation are paid back, the currency translation differences of these monetary items previously recognized in other comprehensive income are reclassified to profit or loss.

(24) Non-controlling interests

Non-controlling interests hold a share of 30.4% in the listed company Orient Refractories Ltd. (in the following "ORL"), based in New Delhi, India. ORL is allocated to the Steel segment. The summarized financial information of ORL shown below corresponds to the amounts before intercompany elimination.

Based on the net assets of the company, the carrying amount of the non-controlling interests is determined as follows:

in € million	12/31/2016	12/31/2015
Non-current assets	28.9	30.6
Current assets	44.4	33.4
Non-current liabilities	(8.2)	(9.1)
Current liabilities	(14.8)	(9.4)
Net assets	50.3	45.5
Percentage of non-controlling interests	30.4%	30.4%
Carrying amount of non-controlling interests	15.3	13.8

The aggregate statement of profit or loss and statement of comprehensive income are shown below:

in € million	2016	2015
Revenue	68.6	62.0
Operating expenses, net finance costs and income tax	(62.2)	(56.7)
Profit after income tax	6.4	5.3
thereof attributable to non-controlling interests of ORL	1.9	1.6
in € million	2016	2015
Profit after income tax	6.4	5.3
Other comprehensive income	0.8	2.3
Total comprehensive income	7.2	7.6
thereof attributable to non-controlling interests of ORL	2.2	2.3

The following table shows the summarized statement of cash flows of ORL:

in € million	2016	2015
Net cash flow from operating activities	7.9	10.4
Net cash flow from investing activities	(0.5)	(1.6)
Net cash flow from financing activities	(2.3)	(2.9)
Total cash flow	5.1	5.9

Net cash flow from financing activities includes dividend payments to non-controlling interests amounting to € 0.6 million (2015: € 0.6 million).

Accumulated other comprehensive income attributable to non-controlling interests is solely related to currency translation differences. The development is shown in the following table:

in € million	2016	2015
Accumulated other comprehensive income at beginning of year	(0.2)	(0.9)
Unrealized results from currency translation	0.3	0.7
Accumulated other comprehensive income at year-end	0.1	(0.2)

(25) Financial liabilities

Financial liabilities include all interest-bearing liabilities of the RHI Group due to financial institutions, fixed-term and puttable non-controlling interests in Group companies and other lenders at the respective reporting date.

The financial liabilities have the following contractual remaining terms:

in € million	Total	Remaining term		
	12/31/2016	up to 1 year	2 to 5 years	over 5 years
"Schuldscheindarlehen"	253.5	55.0	139.5	59.0
Export credits and one-time financing	154.5	29.0	116.9	8.6
Utilized other credit lines	65.9	65.9	0.0	0.0
Accrued interest	1.6	1.6	0.0	0.0
Liabilities to financial institutions	475.5	151.5	256.4	67.6
Liabilities to fixed-term or puttable non-controlling interests	32.5	9.1	1.9	21.5
Other financial liabilities	7.7	4.5	3.1	0.1
Financial liabilities	515.7	165.1	261.4	89.2

in € million	Total	Remaining term		
	12/31/2015	up to 1 year	2 to 5 years	over 5 years
"Schuldscheindarlehen"	253.5	0.0	156.5	97.0
Export credits and one-time financing	183.5	29.0	145.0	9.5
Utilized other credit lines	71.6	71.6	0.0	0.0
Accrued interest	1.6	1.6	0.0	0.0
Liabilities to financial institutions	510.2	102.2	301.5	106.5
Liabilities to fixed-term or puttable non-controlling interests	31.3	7.4	1.7	22.2
Other financial liabilities	6.1	0.0	6.0	0.1
Financial liabilities	547.6	109.6	309.2	128.8

Of the liabilities to financial institutions recognized at December 31, 2016 € 34.0 million were secured by assignment of receivables, unchanged in comparison with the previous year. In case the loan agreement is not met, the bank is entitled to inflows from the receivables assigned.

The indicator net debt factor (see note (59) for its calculation) represents the covenants in the most important loan agreements. If the value of 3.8 is exceeded, the loan conditions are renegotiated. Compliance with the covenants is reviewed on a quarterly basis.

For liabilities of € 383.0 million (12/31/2015: € 407.0 million), lenders have a termination option in the case of a change of control. In the event that certain reasons for termination exist, the lenders may declare the loan due

with immediate effect and demand immediate repayment of the principal including interest, as well as the payment of other amounts payable that may have been incurred.

Taking into account interest swaps, 61% (12/31/2015: 62%) of the liabilities to financial institutions carry fixed interest and 39% (12/31/2015: 38%) carry variable interest.

The following table shows fixed interest terms and conditions, taking into account interest rate swaps, without liabilities from deferred interest:

Interest terms fixed until	Effective annual interest rate	Currency	12/31/2016 Carrying amount in € million	Interest terms fixed until	Effective annual interest rate	Currency	12/31/2015 Carrying amount in € million
2017	EURIBOR + margin	EUR	125.1	2016	EURIBOR + margin	EUR	123.2
	Variable interest rate + margin	EUR	34.0		Variable interest rate + margin	EUR	34.0
	Floating interest rate + margin	EUR	3.4		Floating interest rate + margin	EUR	6.8
	LIBOR + margin	USD	10.2		LIBOR + margin	USD	9.1
	Interbank rate + margin	Var.	11.6		Interbank rate + margin	Var.	20.3
	0.69%	EUR	50.0	2017	0.69%	EUR	50.0
2018	1.13%	EUR	30.0	2018	1.13%	EUR	30.0
2019	1.49%	EUR	16.0	2019	1.49%	EUR	16.0
	3.25%	EUR	15.0		3.25%	EUR	20.0
	0.68%	EUR	15.0		0.68%	EUR	20.0
	3.15%	EUR	12.0		3.15%	EUR	16.0
	0.72%	EUR	10.7		0.72%	EUR	14.3
	1.46% + margin	EUR	10.0		1.46% + margin	EUR	10.0
	1.42% + margin	EUR	3.0		1.42% + margin	EUR	3.0
2020	3.15% + margin	EUR	24.5	2020	3.15% + margin	EUR	32.5
	3.90%	EUR	13.6		3.90%	EUR	13.6
2021	1.97%	EUR	17.0	2021	1.97%	EUR	17.0
2022	4.50%	EUR	6.0	2022	4.50%	EUR	6.0
2023	0.35% + margin	EUR	13.8	2023	0.35% + margin	EUR	13.8
2024	3.00%	EUR	53.0	2024	3.00%	EUR	53.0
473.9				508.6			

In some cases, the terms to maturity of the contracts are substantially longer than the period during which interest terms are fixed.

(26) Other financial liabilities

Other financial liabilities include the negative fair value of derivative financial instruments and consist of the following items:

in € million	12/31/2016			12/31/2015		
	Current	Non-current	Total	Current	Non-current	Total
Liabilities from derivatives from supply contracts	5.9	43.1	49.0	8.0	50.0	58.0
Liabilities from interest rate swaps	0.5	0.4	0.9	0.0	1.3	1.3
Liabilities from derivatives in open orders	0.1	0.0	0.1	0.0	0.0	0.0
Liabilities from forward exchange contracts	0.0	0.0	0.0	0.5	0.0	0.5
Other financial liabilities	6.5	43.5	50.0	8.5	51.3	59.8

Additional explanations on derivative financial instruments are provided under note (57).

(27) Personnel provisions

Personnel provisions include the following provisions:

in € million	12/31/2016	12/31/2015
Pensions	236.8	246.1
Termination benefits	58.5	60.1
Other personnel provisions	22.1	20.1
Personnel provisions	317.4	326.3

Provisions for pensions

The net debt from pension obligations in the consolidated statement of financial position is derived as follows:

in € million	12/31/2016	12/31/2015
Present value of pension obligations	289.2	304.9
Fair value of plan assets	(56.4)	(63.8)
Funded status	232.8	241.1
Asset ceiling	1.9	2.8
Net debt from pension obligations	234.7	243.9
thereof assets from overfunded pension plans	2.1	2.1
thereof provisions for pensions	236.8	246.1

The present value of pension obligations by beneficiary groups is structured as follows:

in € million	12/31/2016	12/31/2015
Active beneficiaries	71.2	76.6
Vested terminated beneficiaries	17.9	21.7
Retirees	200.1	206.6
Present value of pension obligations	289.2	304.9

The calculation of pension obligations is based on the following actuarial assumptions:

in %	12/31/2016	12/31/2015
Interest rate	1.9%	2.5%
Future salary increase	2.2%	2.0%
Future pension increase	1.3%	1.5%

These are average values which were weighted with the present value of the respective pension obligation.

The calculation of the actuarial interest rate for the European currency area is based on a yield curve for returns of high-quality corporate bonds denominated in EUR with an average rating of AA, which is derived from pooled index values. Where there are very long-term maturities, the yield curve follows the performance of bonds without credit default risk. The interest rate is calculated annually at December 31, taking into account the expected future cash flows which were determined based on the current personal and commitment data.

As in the previous year, the calculation in Austria was based on the Pagler & Pagler AVÖ 2008 P biometric calculation principles for salaried employees. In Germany, the Heubeck 2005 G actuarial tables were used as a basis. In the other countries, country-specific mortality tables were applied.

The main pension regulations are described below:

The Austrian Group companies account for € 124.4 million (12/31/2015: € 128.5 million) of the present value of pension obligations and for € 26.3 million (12/31/2015: € 26.1 million) of the plan assets. The agreed benefits include pensions, invalidity benefits and benefits for surviving dependents. Commitments in the form of company or individual agreements depend on the length of service and the salary at the time of retirement. For the majority of commitments the amount of the company pension subsidy is limited to 75% of the final remuneration including a pension pursuant to the General Social Insurance Act (ASVG). RHI has concluded pension reinsurance policies for part of the commitments. The pension claims of the beneficiaries are limited to the coverage capital required for these commitments. Pensions are predominantly paid in the form of annuities and are partially indexed. For employees joining the company after January 1, 1984, no defined benefits were granted. Rather, a defined contribution pension model is in place. In addition, there are commitments based on the deferred compensation principle, which are fully covered by pension reinsurance policies, and commitments for preretirement benefits for employees in mining operations.

The pension plans of the German Group companies account for € 123.4 million (12/31/2015: € 120.2 million) of the present value of pension obligations and for € 0.7 million (12/31/2015: € 0.7 million) of plan assets. The benefits included in company agreements comprise pensions, invalidity benefits and benefits for surviving dependents. The amount of the pension depends on the length of service for the majority of the commitments and is calculated as a percentage of the average monthly wage/salary of the last twelve months prior to retirement. In some cases commitments to fixed benefits per year of service have been made. The pensions are predominantly paid in the form of annuities and are adjusted in accordance with the development of the consumer price index for Germany. The pension plans are closed for new entrants. There is no defined contribution model on a voluntary basis. Individual commitments have been made, with major part of them being retired beneficiaries.

The defined benefit plan in the United Kingdom was terminated in the previous year. The pension benefits were settled by the acquisition of individual policies of an external insurance company. For the complete settlement of the benefits, additional contributions amounting to € 3.0 million were paid. The expenses resulting from settlement amounted to € 0.1 million.

The following table shows the development of net debt from pension obligations:

in € million	2016	2015
Net debt from pension obligations at beginning of year	243.9	266.8
Currency translation	(2.2)	(0.2)
Disposals of consolidated companies	(5.6)	0.0
Pension cost	9.3	9.3
Remeasurement losses/(gains)	9.0	(8.2)
Benefits paid	(17.2)	(17.5)
Employers' contributions to external funds	(2.5)	(6.3)
Net debt from pension obligations at year-end	234.7	243.9

The present value of pension obligations developed as follows:

in € million	2016	2015
Present value of pension obligations at beginning of year	304.9	353.1
Currency translation	(2.8)	5.9
Disposals of consolidated companies	(11.5)	0.0
Current service cost	3.5	4.0
Past service cost	0.0	(1.0)
Losses on settlement	0.0	0.1
Interest cost	6.8	8.1
Remeasurement losses/(gains)		
from changes in demographic assumptions	(0.3)	0.0
from changes in financial assumptions	10.3	(8.7)
due to experience adjustments	(1.1)	(0.3)
Benefits paid	(21.0)	(23.8)
Employee contributions to external funds	0.4	0.4
Disposal due to settlement	0.0	(32.9)
Present value of pension obligations at year-end	289.2	304.9

The development of plan assets is shown in the table below:

in € million	2016	2015
Fair value of plan assets at beginning of year	63.8	87.9
Currency translation	(0.5)	6.3
Disposals of consolidated companies	(5.9)	0.0
Interest income	1.1	2.0
Administrative costs (paid from plan assets)	(0.1)	(0.1)
Income on plan assets less interest income	(1.1)	0.2
Benefits paid	(3.8)	(6.3)
Employers' contributions to external funds	2.5	6.3
Employee contributions to external funds	0.4	0.4
Disposal due to settlement	0.0	(32.9)
Fair value of plan assets at year-end	56.4	63.8

The changes in the asset ceiling are shown below:

in € million	2016	2015
Asset ceiling at beginning of year	2.8	1.6
Currency translation	0.1	0.2
(Gains)/losses from changes in asset ceiling less interest	(1.0)	1.0
Asset ceiling at year-end	1.9	2.8

At December 31, 2016 the weighted average duration of pension obligations amounts to 11 years (12/31/2015: 11 years).).

The following amounts were recorded in the statement of profit or loss:

in € million	2016	2015
Current service cost	3.5	4.0
Negative past service cost	0.0	(1.0)
Losses on settlement	0.0	0.1
Interest cost	6.8	8.1
Interest income	(1.1)	(2.0)
Administrative costs (paid from plan assets)	0.1	0.1
Pension expense recognized in profit or loss	9.3	9.3

The remeasurement results recognized in other comprehensive income are shown in the table below:

in € million	2016	2015
Accumulated remeasurement losses at beginning of year	102.4	116.7
Reclassification due to settlement of defined benefit plans	0.0	(6.1)
Reclassification due to disposal of defined benefit plans	1.9	0.0
Remeasurement losses/(gains) on present value of pension obligations	8.9	(9.0)
Income on plan assets less interest income	1.1	(0.2)
(Gains)/losses from changes in asset ceiling less interest	(1.0)	1.0
Accumulated remeasurement losses at year-end	113.3	102.4

The present value of plan assets is distributed to the following classes of investment:

in € million	12/31/2016			12/31/2015		
	Active market	No active market	Total	Active market	No active market	Total
Insurances	0.0	38.8	38.8	0.0	39.0	39.0
Equity instruments	5.0	0.0	5.0	9.6	0.0	9.6
Debt instruments	0.0	8.2	8.2	1.5	9.2	10.7
Cash and cash equivalents	0.0	0.3	0.3	0.2	0.2	0.4
Other assets	0.2	3.9	4.1	0.3	3.8	4.1
Fair value of plan assets	5.2	51.2	56.4	11.6	52.2	63.8

The present value of the insurances to cover the Austrian pension plans corresponds to the coverage capital. Insurance companies predominantly invest in debt instruments and to a low extent in equity instruments and properties.

Plan assets do not include own financial instruments of the Group or assets utilized by the RHI Group.

RHI works with professional fund managers for the investment of plan assets. They act on the basis of specific investment guidelines adopted by the pension fund committee of the respective pension plans. The committees consist of management staff of the finance department and other qualified executives. They meet regularly in order to approve the target portfolio with the support of independent actuarial experts and to review the risks and the performance of the investments. In addition, they approve the selection or the extension of contracts of external fund managers.

The largest part of the assets is invested in pension reinsurance, which creates a low counterparty risk towards insurance companies. In addition, the Group is exposed to interest risks and longevity risks resulting from defined benefit commitments.

The Group generally endows the pension funds with the amount necessary to meet the legal minimum allocation requirements of the country in which the fund is based. Moreover, the Group makes additional allocations at its discretion from time to time. In the financial year 2017 RHI expects employer contributions to external plan assets to amount to € 2.4 million and direct payments to entitled beneficiaries to amount to € 15.1 million. In the previous year, employer contributions of € 3.2 million and direct pension payments of € 18.9 million had been expected for the financial year 2016.

Provisions for termination benefits

Provisions for termination benefits were based on the following weighted average measurement assumptions:

in %	12/31/2016	12/31/2015
Interest rate	1.8%	2.3%
Future salary increase	2.9%	2.8%

The interest rate for the measurement of termination benefit obligations in the euro area was determined taking into account the company specific duration of the portfolio.

Provisions for termination benefits developed as follows in the financial year and the previous year:

in € million	2016	2015
Provisions for termination benefits at beginning of year	60.1	66.0
Currency translation	0.0	(0.1)
Current service cost	1.5	1.7
Interest cost	1.3	1.4
Remeasurement losses/(gains)		
from changes in financial assumptions	2.9	(3.7)
due to experience adjustments	(1.7)	(1.2)
Benefits paid	(5.6)	(4.0)
Provisions for termination benefits at year-end	58.5	60.1

Payments for termination benefits are expected to amount to € 1.9 million in the year 2017. In the previous year, the payments for termination benefits expected for the year 2016 amounted to € 2.5 million.

The following remeasurement gains and losses were recognized in other comprehensive income:

in € million	2016	2015
Accumulated remeasurement losses at beginning of year	22.3	27.2
Remeasurement losses/(gains) ¹⁾	1.3	(4.9)
Accumulated remeasurement losses at year-end	23.6	22.3

1) Including € 0.1 million (2015: € 0.0 million) from a joint venture accounted for using the equity method

At December 31, 2016 the weighted average duration of termination benefit obligations amounts to 11 years (12/31/2015: 11 years).

Other personnel provisions

Other personnel provisions consist of the following items:

in € million	12/31/2016	12/31/2015
Service anniversary bonuses	18.3	18.1
Semi-retirements	1.7	1.5
Share-based payments	1.4	0.3
Lump-sum settlements	0.7	0.2
Other personnel provisions	22.1	20.1

The measurement of provisions for service anniversary bonuses is based on an average weighted interest rate of 1.5% (12/31/2015: 2.1%) and takes into account salary increases of 3.8% (12/31/2015: 4.1%).

The discount rate of provisions for semi-retirement amounts to 0.0% as of December 31, 2016 (12/31/2015: 0.1%).

The funded status of provisions for obligations to employees with semi-retirement contracts is shown in the table below:

in € million	12/31/2016	12/31/2015
Present value of semi-retirement obligations	5.1	4.6
Fair value of plan assets	(3.4)	(3.1)
Provisions for semi-retirement obligations	1.7	1.5

External plan assets are beyond the reach of all creditors and exclusively serve to meet semi-retirement obligations.

(28) Other non-current provisions

The development of non-current provisions is shown in the table below:

in € million	2016
Provisions at beginning of year	4.3
Disposals of consolidated companies	(0.7)
Use	(0.1)
Addition	1.8
Reclassifications	(0.8)
Provisions at year-end	4.5

The provisions of € 4.5 million recognized at December 31, 2016 are primarily due to provisions for obligations related to a lease contract and to contracts for the procurement of raw materials and logistics services. Currently, these provisions are expected to be used in a period from two to four years.

(29) Other non-current liabilities

Other non-current liabilities of € 6.9 million (12/31/2015: € 7.9 million) include deferred income for subsidies received from third parties amounting to € 4.7 million (12/31/2015: € 5.3 million) and liabilities to employees.

(30) Trade payables and other current liabilities

Trade payables and other current liabilities included in the statement of financial position consist of the following items:

in € million	12/31/2016	12/31/2015
Trade payables	202.1	177.4
Prepayments received on orders	14.9	14.0
Liabilities employees	51.8	53.7
Taxes other than income tax	16.5	17.1
Customers with credit balances	6.0	3.8
Payables from commissions	5.9	7.8
Liabilities to subsidiaries	0.1	0.1
Other current liabilities	15.4	19.7
Trade payables and other current liabilities	312.7	293.6
thereof financial liabilities	217.3	196.9
thereof non-financial liabilities	95.4	96.7

The item liabilities employees primarily consists of obligations for wages and salaries, payroll taxes and employee-related duties, performance bonuses, unused vacation and flexitime credits.

(31) Income tax liabilities

Income tax liabilities amounting to € 18.4 million (12/31/2015: € 25.3 million) primarily include income taxes for the current year and previous years which have not yet been definitively audited by domestic and foreign tax authorities. Taking into account a multitude of factors, including the interpretation, commenting and case law regarding the respective tax laws as well as past experiences, adequate liabilities have been recognized as far as apparent.

(32) Current provisions

The development of current provisions is shown in the table below:

in € million	Demolition/disposal costs, environmental damages	Warranties	Guarantees provided	Restructuring costs, other	Total
12/31/2015	9.3	10.6	7.4	5.7	33.0
Currency translation	0.0	0.3	0.0	0.1	0.4
Use	(1.2)	(4.6)	(3.7)	(2.7)	(12.2)
Reversal	0.0	(2.2)	(0.5)	(1.0)	(3.7)
Addition	0.1	7.0	0.1	3.4	10.6
Reclassifications	0.0	0.0	0.0	0.8	0.8
Reclassification from current liabilities	0.0	0.0	0.0	0.2	0.2
12/31/2016	8.2	11.1	3.3	6.5	29.1

The item demolition and disposal costs, environmental damages includes provisions for the estimated demolition and disposal costs of plant and buildings of the former site in Duisburg, Germany amounting to € 2.8 million (12/31/2015: € 3.4 million). It is assumed that these provisions will be used up within in the next twelve months. Furthermore, provisions for recultivation and expected refurbishment costs resulting from environmental damage at other locations exist at the two reporting dates.

Provisions for warranties include provisions for claims arising from warranties and other similar obligations from the sale of refractory products and provisions for onerous contracts.

Provisions for guarantees provided include obligations from sureties and guarantees to banks and insurance companies in the country and abroad. The exact due date of the cash outflow is uncertain at present.

The item restructuring costs, other includes provisions for restructuring costs as well as provisions for the share-based remuneration program of the members of the Management Board of RHI AG of € 0.7 million (12/31/2015: € 0.1 million), which are paid in February, furthermore, provisions for process risks as well as several provisions, which are individually immaterial and cannot be allocated to one of the above-mentioned categories.

Provisions for restructuring costs amount to € 2.1 million as of December 31, 2016 (12/31/2015: € 2.0 million) and primarily consist of benefit obligations to employees due to termination of employment, and costs of lease obligations of the former site in Kretz. A large part of these costs is expected to be paid within twelve months.

In the context of the legal proceedings to review the cash compensation of the former minority shareholders of Didier-Werke AG, Wiesbaden, Germany, a provision amounting to € 0.6 million is in place at December 31, 2016 (12/31/2015: € 1.2 million). With a decision of January 17, 2017, the Frankfurt Higher Regional Court followed the amount of the adequate cash compensation according to an expert opinion and has set the compensation at € 102.37 per no-par share of Didier-Werke AG. This amount carries an interest rate of five percentage points above the base rate since August 26, 2010. In addition, RHI has to bear the court costs, costs of the legal counsel and the out-of-court costs of the claimant. No appeals are permitted. The decision is final. Further provisions were created for expected expenses related to further ongoing or probable legal disputes. The provision amounts, which are of minor importance individually, were determined on the basis of information and cost estimates made by the lawyers of the Group companies. It is currently uncertain when precisely the cash outflow is due.

NOTES TO THE CONSOLIDATED STATEMENT OF PROFIT OR LOSS

(33) Revenue

Revenue is essentially generated by product deliveries. The distribution of revenue by product group, division and country is given in the explanations to segment reporting under note (53).

Revenue includes revenues from long-term construction contracts amounting to € 58.7 million (2015: € 83.7 million).

(34) Cost of sales

Cost of sales comprises the production cost of goods sold as well as the purchase price of merchandise sold. In addition to direct material and production costs, it also includes overheads including depreciation charges on production equipment, amortization charges of intangible assets as well as impairment losses and reversals of impairment losses of inventories. Moreover, cost of sales also includes the costs of services provided by the Group or services received.

(35) Selling and marketing expenses

This item includes personnel expenses for the sales staff, commissions, as well as depreciation charges and other operating expenses related to the market and sales processes.

(36) General and administrative expenses

General and administrative expenses primarily consist of personnel expenses for the administrative functions, legal and other consulting costs, expenses for research and non-capitalizable development costs.

Research and development expenses totaled € 23.9 million (2015: € 23.4 million), of which development costs amounting to € 4.8 million (2015: € 4.6 million) were capitalized. Income from research grants amounted to € 4.0 million (2015: € 3.2 million) in the reporting year 2016. Amortization and impairment of development costs amounting to € 3.4 million (2015: € 3.0 million) are recognized under cost of sales.

For the planned combination of RHI and Magnesita, which is described under note (62), external costs amounting to € 12.1 million were incurred in the financial year 2016. They are primarily related to legal advisory costs and the fee for the consulting investment bank.

(37) Other income

The individual components of other income are:

in € million	2016	2015
Foreign exchange gains	85.0	67.7
Gains from derivative financial instruments	2.7	2.3
Income from the disposal of non-current assets	0.9	3.9
Miscellaneous income	3.7	2.1
Other income	92.3	76.0

Income from the disposal of non-current assets predominantly includes income from the sale of land.

Miscellaneous income primarily consists of other revenue and other operating income related to prior periods.

(38) Other expenses

Other expenses include:

in € million	2016	2015
Foreign exchange losses	(76.9)	(64.3)
Losses from derivative financial instruments	(6.8)	(14.6)
Losses from the disposal of non-current assets	(0.5)	(0.8)
Miscellaneous expenses	(1.6)	(1.2)
Other expenses	(85.8)	(80.9)

The net foreign currency effects amount to € 8.1 million (2015: € 3.4 million). The net amount of gains and losses from derivative financial instruments in the operating EBIT amounts to € (4.1) million (2015: € (12.3) million). This amount includes realized effects from forward exchange contracts of € (3.6) million (2015: € (13.3) million).

(39) Impairment losses

CGU Industrial/Fused Cast

The plants San Vito, Italy, and Sherbinska, Russia, have been presented as a separate CGU since 2016 and have thus been removed from the CGU Industrial/Glass. These plants produce fused cast products. The production of such fused cast products is associated with high fixed costs, which combined with low capacity utilization burden the achievable margins. As part of the plant concept, the Management Board of the RHI Group is evaluating whether a structured selling process will be initiated for these plants or they will continue to operate within the Group. The impairment on the existing property, plant and equipment and intangible assets recognized in 2016 amounts to € 8.0 million.

CGU Industrial/Monofrax

In the previous year an impairment on the property, plant and equipment and intangible assets of this CGU amounting to € 8.0 million was recognized.

CGU Raw Materials/Norway

The investments made in 2016 totaling € 0.6 million were fully written down. In the previous year, an impairment of € 23.2 million was recognized.

(40) Income from restructuring

Duisburg plant, Germany

The liquidation of the provisions created for the closure of the plant in Duisburg, Germany, in the previous years resulted in income of € 0.3 million in 2016 (2015: € 4.3 million), of which the Steel Division accounts for € 0.2 million (2015: € 2.4 million) and the Industrial Division for € 0.1 million (2015: € 1.9 million). The former production site itself was sold in early 2016. The transfer of ownership is subject to the buyer of the property paying the consideration in full.

Kretz site, Germany

At the site in Kretz, Germany, magnesite raw materials were treated at a leased plant until 2014. As part of the optimization of the raw material treatment throughout the Group, the Management Board of RHI AG decided to terminate operations at this site because significant investments would have been necessary due to additional official regulations. The lease was terminated with effect from December 31, 2015. Provisions were formed for all payments still due. The employees of this site were transferred to other sites of the RHI Group or given notice in the year 2015. No income from restructuring or restructuring costs were recognized in the reporting year. In the previous year, income of € 1.6 million was recognized and fully allocated to the Raw Materials Division.

(41) Restructuring costs

Sale RHI Monofrax LLC, USA

The sale and deconsolidation of RHI Monofrax LLC, Wilmington, USA, resulted in expenses amounting to € 4.6 million in 2016, which are recognized in the restructuring costs of the Industrial Division. For further details regarding this deconsolidation please refer to note (4) on the changes in the consolidated group.

Porsgrunn plant, Norway

The high-grade products manufactured at this site stand in direct competition with products available in the market. Due to the massive drop in raw material prices, external purchases were increased and the capacities for our own production restricted accordingly. This results in expenses amounting to € 4.2 million in the Raw Materials Division, which comprise personnel costs of € 1.4 million and costs from purchase contracts for the delivery of raw material and provision of logistics services of € 2.8 million.

Clydebank plant, United Kingdom

As part of the plant concept, the Management Board of RHI AG decided in 2015 to concentrate the activities of the two Scottish plants for isostatically pressed products at the site in Bonnybridge. The Clydebank site was closed at the end of the year 2016. This resulted in personnel costs of € 0.1 million in 2016 (2015: personnel costs of € 0.4 million, impairment losses on buildings of € 1.4 million and impairment losses on technical plant and machinery of € 1.5 million). These costs are allocated to the Steel Division in their entirety in both years. The recoverable amount (fair value less cost of disposal, level 3 pursuant to IFRS 13) amounts to € 1.1 million at December 31, 2016 (12/31/2015: € 1.3 million) .

(42) Interest income

This item includes interest on cash at banks and similar income amounting to € 2.9 million (2015: € 1.4 million), interest income on financial receivables amounting to € 0.2 million (2015: € 0.2 million) and interest income on available-for-sale securities and shares amounting to € 1.0 million (2015: € 4.2 million), of which € 0.4 million (2015: € 4.0 million) is accounted for by impaired securities.

(43) Interest expenses

This item includes interest expenses for “Schuldscheindarlehen” and bank loans less capitalized interest on borrowings, interest from interest rate swaps, tax-related interest, interest expenses attributable to non-controlling interests totaling € 3.4 million (2015: € 3.3 million) and other interest and similar expenses.

(44) Other net financial expenses

Other net financial expenses consist of the following items:

in € million	2016	2015
Interest income on plan assets	1.1	2.0
Interest expense on provisions for pensions	(6.8)	(8.1)
Interest expense on provisions for termination benefits	(1.3)	(1.4)
Interest expense on other personnel provisions	(0.4)	(0.5)
Net interest expense personnel provisions	(7.4)	(8.0)
Gains from the disposal of securities and shares	0.9	4.6
Reversal of impairment losses/(impairment losses) on securities	0.5	(0.6)
Expenses from the valuation of put options	(1.8)	(0.6)
Other net financial expenses	(7.8)	(4.6)

(45) Income tax

Income tax consists of the following items:

in € million	2016	2015
Current tax expense	25.6	32.4
Deferred tax expense/(income) relating to		
temporary differences	(6.5)	(19.6)
tax loss carryforwards	10.8	(3.0)
	4.3	(22.6)
Income tax	29.9	9.8

The current tax expense of the year 2016 includes tax expenses for previous periods of € 1.8 million (2015: € 4.0 million) and income from income tax relating to other periods of € 8.2 million (2015: € 0.9 million). Of this total, € 6.3 million are attributable to the reversal of a provision related to a tax audit in Turkey. On the one hand, this was possible because of the completion of the audit in the third quarter of 2016; on the other hand, a change in legislation was used for the subsequent years.

In addition to the income taxes recognized in the statement of profit or loss, tax income totaling € 1.1 million (2015: tax expense of € 1.9 million), which is attributable to other comprehensive income was also recognized in other comprehensive income. Tax income totaling € 0.5 million (2015: tax expense of € 0.6 million) was reclassified from other comprehensive income to the statement of profit or loss.

The reasons for the difference between the arithmetic income tax expense, which would result from the application of the Austrian corporate tax rate of 25% on the profit before income tax, and the income tax reported are shown below:

in € million	2016	2015
Profit before income tax	105.8	27.4
Arithmetic tax expense with tax rate of 25% (2015: 25%)	26.5	6.9
Different foreign tax rates	1.2	(0.6)
Expenses not deductible for tax purposes, non-creditable taxes	12.5	8.4
Income not subject to tax and tax advantages	(2.2)	(3.9)
Non-capitalized tax losses and temporary differences of the financial year	2.1	5.8
Utilization of previously unrecognized loss carryforwards and temporary differences	(0.6)	(3.3)
Capitalization of previously unrecognized loss carryforwards and temporary differences	(0.5)	(6.2)
Change in valuation allowance on deferred tax assets	1.4	0.9
Deferred tax expense due to tax rate changes	1.3	1.0
Deferred income tax relating to prior periods	(4.4)	(2.1)
Current income tax relating to prior periods	(6.4)	3.1
Other	(1.0)	(0.2)
Recognized tax expense	29.9	9.8
Effective tax rate (in %)	28.3%	35.8%

Deferred tax expense due to tax rates changes is primarily attributable to a reduction of the tax rate in Norway in both reporting years (applicable tax rate 12/31/2016: 24.0%, 12/31/2015: 25.0%, 12/31/2014: 27.0%).

(46) Expense categories

The presentation of the consolidated statement of profit or loss is based on the cost of sales method. The following table shows a classification by expense category for the financial year 2016 and the previous year:

in € million	Cost of sales	Selling and marketing expenses	General and administrative expenses	Other income/ expenses	Gain derivatives/ impairment loss	Income/ costs from restructuring	Total 2016
Changes in inventories, own work capitalized	22.6	0.0	(4.8)	0.0	0.0	0.0	17.8
Cost of materials	781.4	0.4	2.7	0.0	0.0	1.2	785.7
Personnel costs	253.5	58.4	85.3	0.0	0.0	1.5	398.7
Depreciation charges ¹⁾	60.5	0.5	4.2	0.2	8.6	0.0	74.0
Other income	(14.7)	0.0	(8.2)	(92.3)	0.0	0.0	(115.2)
Other expenses	191.5	45.9	55.3	85.6	(10.1)	5.9	374.1
Total	1,294.8	105.2	134.5	(6.5)	(1.5)	8.6	1,535.1

in € million	Cost of sales	Selling and marketing expenses	General and administrative expenses	Other income/ expenses	Losses derivatives/ impairment losses	Income/ costs from restructuring	Total 2015
Changes in inventories, own work capitalized	8.7	0.0	(4.6)	0.0	0.0	0.0	4.1
Cost of materials	857.9	0.5	2.5	0.0	0.0	0.0	860.9
Personnel costs	267.1	59.5	81.5	0.0	0.0	0.4	408.5
Depreciation charges ¹⁾	64.4	0.7	4.2	0.0	31.2	2.9	103.4
Other income	(10.9)	0.0	(7.2)	(76.0)	0.0	0.0	(94.1)
Other expenses	201.9	51.4	45.9	80.9	58.0	(5.9)	432.2
Total	1,389.1	112.1	122.3	4.9	89.2	(2.6)	1,715.0

1) Including impairment losses on property, plant and equipment and intangible assets

Cost of materials includes expenses for raw materials and supplies, and purchased goods of € 620.3 million (2015: € 669.2 million) as well as expenses for services received, especially energy, amounting to € 165.4 million (2015: € 191.7 million).

Amortization charges of intangible assets are largely recognized in cost of sales.

(47) Personnel costs

Personnel costs consist of the following components:

in € million	2016	2015
Wages and salaries	305.8	312.5
Pensions		
Defined benefit plans	3.6	3.2
Defined contribution plans	3.1	3.1
Termination benefits		
Defined benefit plans	1.5	1.7
Defined contribution plans	1.9	1.9
Other expenses	4.1	3.0
Fringe benefits	78.7	83.1
Personnel expenses (without interest expenses)	398.7	408.5

Personnel costs do not include amounts resulting from the interest accrued on personnel provisions. They amount to € 7.4 million (2015: € 8.0 million) and are recorded in net finance costs.

NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

The statement of cash flows shows how cash and cash equivalents of the Group change through cash inflows and cash outflows during the reporting year. In accordance with IAS 7, cash flows from operating activities, from investing activities and from financing activities are distinguished. Cash flows from investing and financing activities are determined on the basis of cash payment, while cash flow from operating activities is derived from the consolidated financial statements using the indirect method.

The respective monthly changes in items of the statement of financial position of companies that report in foreign currencies are translated at the closing rate of the previous month and adjusted for effects arising from changes in the group of consolidated companies or in other businesses. Therefore, the statement of cash flows cannot be derived directly from changes in items of the consolidated statement of financial position. As in the statement of financial position, cash and cash equivalents are translated at the closing rate. The effects of changes in exchange rates on cash and cash equivalents are shown separately.

(48) Net cash flow from operating activities

Net cash flow from operating activities is derived indirectly based on profit after income tax. Profit after income tax is adjusted for results which are allocable to the cash flows from investing or financing activities and for non-cash expenses and income. Other non-cash expenses and income include in particular the net interest expenses for defined benefit pension plans amounting to € 7.4 million (2015: € 8.0 million), net remeasurement gains of monetary foreign currency positions and derivative financial instruments of € 21.9 million (2015: net remeasurement losses of € 61.3 million) and non-cash funding of provisions for restructuring amounting to € 1.0 million (2015: reversal of € 2.0 million). Taking into account the change in funds tied up in working capital as well as other operating assets and liabilities and income taxes paid, the result is net cash flow from operating activities.

(49) Net cash flow from investing activities

Net cash flow from investing activities shows the cash inflows and outflows for disposals of and additions to non-current assets. The cash outflows for investments in property, plant and equipment and intangible assets differ from the additions to assets primarily through additions to assets already capitalized, which will have a cash effect in the following year.

Cash effects from business combinations or the sale of companies (net change in cash and cash equivalents from initial consolidations and deconsolidations) are shown separately. In the reporting year 2016, no acquisitions of companies were carried out. The sale of the subsidiary RHI Monofrax, LLC, Wilmington, USA, as of June 6, 2016 led to a cash outflow of € 4.6 million.

Interest and dividends received are included under cash flow from investing activities.

(50) Net cash flow from financing activities

Net cash flow from financing activities includes outflows from dividend payments and interest payments. In contrast, interest on borrowings capitalized in accordance with IAS 23 is included in cash flow from investing activities, and tax-related interest is recognized in cash flow from operating activities.

The interest expenses recognized in the consolidated statement of profit or loss include non-cash accrued interest of € 1.6 million (2015: € 1.6 million).

Inflows resulting from the proceeds and repayments of loans and other financial liabilities are classified as non-current or current according to the term of financing.

(51) Total interest paid and interest received

Total interest paid amounts to € 17.5 million in the reporting period (2015: € 20.8 million), of which € 0.0 million (2015: € 0.2 million) are included in cash flow from operating activities, € 0.5 million (2015: € 0.3 million) in cash flow from investing activities and € 17.0 million (2015: € 20.3 million) in cash flow from financing activities.

Total interest received amounts to € 3.2 million for the financial year 2016 (2015: € 5.8 million), of which € 0.2 million (2015: € 0.0 million) are included in cash flow from operating activities and € 3.0 million (2015: € 5.8 million) in cash flow from investing activities.

(52) Cash and cash equivalents

Cash and cash equivalents as presented in the consolidated statement of cash flows correspond to the cash and cash equivalents recognized in the statement of financial position. They include restricted cash totaling € 19.8 million at December 31, 2016 (12/31/2015: € 21.9 million). Restricted cash is related to cash and cash equivalents at subsidiaries (mainly in China, India and South Africa) to which the company only has limited access due to foreign exchange and capital transfer controls. € 13.5 million (12/31/2015: € 8.4 million) are accounted for by a subsidiary with non-controlling interests. At December 31, 2015, the RHI Group was not authorized to use cash amounting to € 2.0 million due to a pending lawsuit. The proceedings were completed in the financial year 2016.

OTHER DISCLOSURES

(53) Segment reporting

Segment reporting by operating company division

The following tables show the financial data for the operating segments for the year 2016 and the previous year:

in € million	Steel	Industrial	Raw Materials	Reconciliation	Group 2016
External revenue	1,071.4	538.6	41.2	0.0	1,651.2
Internal revenue	0.0	0.0	224.8	(224.8)	0.0
Segment revenue	1,071.4	538.6	266.0	(224.8)	1,651.2
Operating EBIT	76.2	44.5	2.5	0.0	123.2
Gain from derivatives from supply contracts	0.0	0.0	10.1	0.0	10.1
Impairment losses	0.0	(8.0)	(0.6)	0.0	(8.6)
Income from restructuring	0.2	0.1	0.0	0.0	0.3
Restructuring costs	(0.1)	(4.6)	(4.2)	0.0	(8.9)
EBIT	76.3	32.0	7.8	0.0	116.1
Net finance costs	0.0	0.0	0.0	(21.2)	(21.2)
Share of profit of joint ventures	0.0	0.0	10.9	0.0	10.9
Profit before income tax					105.8
Depreciation and amortization charges	(31.3)	(16.5)	(17.3)	0.0	(65.1)
Segment assets 12/31/2016	645.4	269.6	397.8	458.9	1,771.7
Investments in joint ventures 12/31/2016	0.0	0.0	20.5	0.0	20.5
					1,792.2
Investments in property, plant and equipment and intangible assets (according to non-current assets statement)	28.7	16.7	20.9	0.0	66.3

in € million	Steel	Industrial	Raw Materials	Reconciliation	Group 2015
External revenue	1,099.9	614.6	38.0	0.0	1,752.5
Internal revenue	0.0	0.0	234.6	(234.6)	0.0
Segment revenue	1,099.9	614.6	272.6	(234.6)	1,752.5
Operating EBIT	64.3	65.0	(5.2)	0.0	124.1
Loss from derivatives from supply contracts	0.0	0.0	(58.0)	0.0	(58.0)
Impairment losses	0.0	(8.0)	(23.2)	0.0	(31.2)
Income from restructuring	2.4	1.9	1.6	0.0	5.9
Restructuring costs	(3.3)	0.0	0.0	0.0	(3.3)
EBIT	63.4	58.9	(84.8)	0.0	37.5
Net finance costs	0.0	0.0	0.0	(19.3)	(19.3)
Share of profit of joint ventures	0.0	0.0	9.2	0.0	9.2
Profit before income tax					27.4
Depreciation and amortization charges	(31.5)	(18.2)	(19.6)	0.0	(69.3)
Segment assets 12/31/2015	647.0	291.3	429.6	417.3	1,785.2
Investments in joint ventures 12/31/2015	0.0	0.0	19.3	0.0	19.3
					1,804.5
Investments in property, plant and equipment and intangible assets (according to non-current assets statement)	44.5	21.7	16.4	0.0	82.6

Revenue amounting to € 183.9 million (2015: € 197.1 million) was realized with one customer in 2016, which is included in the Steel segment. No other single customer contributed 10% or more to consolidated revenue in 2016 or 2015. Companies which are known to be part of a group are treated as one customer.

Segment assets include the external receivables and inventories which are reported to the management for control and measurement and which are available to operating segments, as well as property, plant and equipment, goodwill and other intangible assets which are allocated to the segments based on the capacity of the assets provided to the segments. Shares in joint ventures are allocated to the segments. All other assets are recognized under reconciliation.

When allocating revenue to product groups, a distinction is made between shaped products (e.g. hydraulically pressed bricks, fused cast bricks, isostatically pressed products) and unshaped products (e.g. repair mixes, construction mixes and castables) as well as other revenue. Other includes revenue from the provision of services as well as the sale of non-Group refractory products.

In the reporting year, revenue is classified by product group as follows:

in € million	Steel	Industrial	Raw Materials	Group
Shaped products	675.6	403.8	0.0	1,079.4
Unshaped products	314.8	61.5	40.9	417.2
Other	81.0	73.3	0.3	154.6
Revenue	1,071.4	538.6	41.2	1,651.2

In 2015, revenue by was classified by product group as follows:

in € million	Steel	Industrial	Raw Materials	Group
Shaped products	695.6	462.3	0.0	1,157.9
Unshaped products	304.6	58.3	37.8	400.7
Other	99.7	94.0	0.2	193.9
Revenue	1,099.9	614.6	38.0	1,752.5

Segment reporting by country

Revenue is classified by customer sites as follows:

in € million	2016	2015
Austria	36.9	37.0
All other countries		
India	170.7	186.2
USA	151.2	164.9
Germany	142.7	142.0
Mexico	113.6	106.7
Italy	93.2	92.2
PR China	88.9	103.3
Canada	60.8	93.2
Russia	49.1	57.5
Saudi Arabia	41.5	47.2
Other countries, each below € 39.3 million (2015: € 45.3 million)	702.6	722.3
Revenue	1,651.2	1,752.5

The carrying amounts of property, plant and equipment and intangible assets are classified as follows by the respective sites of the Group companies:

in € million	12/31/2016	12/31/2015
Austria	206.5	195.8
All other countries		
PR China	128.3	142.1
Germany	87.9	86.9
India	64.2	64.7
Turkey	34.1	34.8
Mexico	28.4	30.8
Other countries, each below € 20.8 million (12/31/2015: € 21.5 million)	81.3	88.8
Property, plant and equipment and intangible assets	630.7	643.9

(54) Earnings per share

In accordance with IAS 33, earnings per share are calculated by dividing the profit or loss attributable to the shareholders of RHI AG by the weighted average number of shares outstanding during the financial year.

	2016	2015
Share of shareholders of RHI AG in profit after income tax (in € million)	74.0	16.0
Weighted average number of shares	39,819,039	39,819,039
Earnings per share (in €)	1.86	0.40

There are no options for the issue of new shares or other circumstances that may lead to diluting effects. Therefore, the basic and diluted earnings per share are identical.

(55) Dividend payments and proposed dividend

In accordance with the Stock Corporation Act, the dividend payable to the shareholders of RHI AG is based on the accumulated profit as shown in the annual financial statements of RHI AG, which are prepared in accordance with the Austrian Commercial Code. Accumulated profit developed as follows in the financial year 2016:

in € million	2016
Accumulated profit carried forward	613.6
Dividend payments	(29.9)
Profit for the year	114.7
Accumulated profit 12/31/2016	698.4
Proposed dividend	(29.9)
Profit carryforward	668.5

Based on a resolution adopted by the 37th Annual General Meeting on May 4, 2016, dividends totaling € 29.9 million were paid out in the financial year 2016 for the year 2015, which corresponded to a dividend of € 0.75 per share.

At the 38th Annual General Meeting on May 5, 2017, the Management Board will propose a dividend of € 0.75 per share for the financial year 2016, which corresponds to a dividend payment of € 29.9 million. The proposed dividend is subject to the approval by the Annual General Meeting and was not recognized as a liability in the consolidated financial statements 2016.

Dividend payments to the shareholders of RHI AG have no income tax consequences for RHI AG.

(56) Additional disclosures on financial instruments

The following tables show the carrying amounts and fair values of financial assets and liabilities by measurement category and level and the allocation to the measurement category in accordance with IFRS 13. In addition, carrying amounts are shown aggregated according to measurement category.

in € million	IAS 39 Mea- surement category ¹⁾	Level	(Amor- tized) cost	Fair value recognized in profit/loss	Fair value recognized in equity	12/31/2016 ²⁾ Carrying amount	Fair value
Available-for-sale investments	FAAC	-	0.4	-	-	0.4	-
Available-for-sale securities	AfS	1	-	-	15.3	15.3	15.3
Available-for-sale shares	FAAC	-	0.5	-	-	0.5	-
Other non-current financial receivables	LaR	-	2.7	-	-	2.7	-
Trade and other current receivables	LaR	-	312.1	-	-	312.1	-
Other current financial receivables	LaR	-	1.5	-	-	1.5	-
Financial assets held for trading	FAHfT	2	-	1.5	-	1.5	1.5
Cash and cash equivalents	LaR	-	182.9	-	-	182.9	-
Financial assets						516.9	
Non-current financial liabilities	FLAAC	2	350.6	-	-	350.6	372.1
Interest derivatives designated as cash flow hedges	-	2	-	-	0.9	0.9	0.9
Current financial liabilities	FLAAC	2	165.1	-	-	165.1	165.8
Financial liabilities held for trading	FLHfT	2	-	49.1	-	49.1	49.1
Trade payables and other current liabilities	FLAAC	-	217.3	-	-	217.3	-
Financial liabilities						783.0	
Aggregated according to measurement category							
Loans and receivables	LaR		499.2	-	-	499.2	
Available for sale financial instruments	AfS		-	-	15.3	15.3	
Financial assets at cost	FAAC		0.9	-	-	0.9	
Financial assets held for trading	FAHfT		-	1.5	-	1.5	
Financial liabilities measured at amortized cost	FLAAC		733.0	-	-	733.0	
Financial liabilities held for trading	FLHfT		-	49.1	-	49.1	

in € million	IAS 39 Mea- surement category ¹⁾	Level	(Amor- tized) cost	Fair value		12/31/2015 ²⁾	
				recognized in profit/loss	recognized in equity	Carrying amount	Fair value
Available-for-sale investments	FAAC	-	0.5	-	-	0.5	-
Available-for-sale securities	AfS	1	-	-	20.4	20.4	20.4
Available-for-sale shares	FAAC	-	0.5	-	-	0.5	-
Other non-current financial receivables	LaR	-	2.3	-	-	2.3	-
Trade and other current receivables	LaR	-	308.4	-	-	308.4	-
Other current financial receivables	LaR	-	1.7	-	-	1.7	-
Financial assets held for trading	FAHfT	2	-	2.3	-	2.3	2.3
Cash and cash equivalents	LaR	-	149.7	-	-	149.7	-
Financial assets						485.8	
Non-current financial liabilities	FLAAC	2	438.0	-	-	438.0	461.3
Interest derivatives designated as cash flow hedges	-	2	-	-	1.3	1.3	1.3
Current financial liabilities	FLAAC	2	109.6	-	-	109.6	110.1
Financial liabilities held for trading	FLHfT	2	-	58.5	-	58.5	58.5
Trade payables and other current liabilities	FLAAC	-	196.9	-	-	196.9	-
Financial liabilities						804.3	
Aggregated according to measurement category							
Loans and receivables	LaR		462.1	-	-	462.1	
Available for sale financial instruments	AfS		-	-	20.4	20.4	
Financial assets at cost	FAAC		1.0	-	-	1.0	
Financial assets held for trading	FAHfT		-	2.3	-	2.3	
Financial liabilities measured at amortized cost	FLAAC		744.5	-	-	744.5	
Financial liabilities held for trading	FLHfT		-	58.5	-	58.5	

1) FAAC: Financial assets at cost

AfS: Available for sale financial instruments

LaR: Loans and receivables

FAHfT: Financial assets held for trading

FLAAC: Financial liabilities measured at amortized cost

FLHfT: Financial liabilities held for trading

2) The items trade and other non-current receivables and payables also include non-financial assets and liabilities; they are therefore not considered in the table of financial instruments. The reconciliation to the respective items of the statement of financial position is provided in notes (18) and (30).

In the RHI Group especially securities and derivative financial instruments are measured at fair value.

Fair value is defined as the amount for which an asset could be exchanged, or a liability settled, between market participants in an arm's length transaction on the day of measurement. When the fair value is determined it is assumed that the transaction in which the asset is sold or the liability is transferred takes place either in the main market for the asset or liability, or in the most favorable market if there is no main market. RHI considers the characteristics of the asset or liability to be measured which a market participant would consider in pricing. It is assumed that market participants act in their best economic interest.

RHI takes into account the availability of observable market prices in an active market and uses the following hierarchy to determine fair value:

Level 1: Prices quoted in active markets for identical financial instruments.

Level 2: Measurement techniques in which all important data used are based on observable market data.

Level 3: Measurement techniques in which at least one significant parameter is based on non-observable market data.

The fair value of available-for-sale securities is based on price quotations at the reporting date (Level 1). Due to the sale of securities in the year 2016, income of € 0.1 million (2015: income of € 1.3 million), which was previously recognized in other comprehensive income, had to be reclassified to the statement of profit or loss.

The fair value of interest derivatives in a hedging relationship (interest rate swaps) is determined by calculating the present value of future cash flows based on current yield curves taking into account the corresponding terms (Level 2).

The fair value of financial assets and liabilities held for trading corresponds to the market value of the forward exchange contracts and the embedded derivatives in open orders denominated in a currency other than the functional currency, as well as the market value of a long-term power supply contract, which had to be classified as a derivative financial instrument for the first time in the financial year 2015. These financial assets and liabilities held for trading are measured based on quoted forward rates (Level 2).

The available-for-sale shares in a residential property company (Level 3), which are not listed, were sold in their entirety in the second quarter of 2015; the measurement performed was already based on the selling price. The development of Level 3 fair values in the financial year 2015 is presented below:

in € million	01/01/ - 12/31/2015
Fair values at beginning of year	2.2
Unrealized results from fair value change recognized in other comprehensive income	0.7
Reclassification to statement of profit or loss due to disposal	(2.9)
Fair values at year-end	0.0

RHI takes into account reclassifications in the measurement hierarchy at the end of the reporting period in which the changes occur. There were no shifts between the different measurement levels in the two reporting periods.

Financial liabilities are carried at amortized cost in the statement of financial position; the fair values of the financial liabilities are only shown in the notes. They are calculated at the present value of the discounted future cash flows using yield curves that are currently observable (Level 2).

Available-for-sale investments of € 0.4 million (12/31/2015: € 0.5 million) and available-for-sale shares of € 0.5 million (12/31/2015: € 0.5 million) are equity instruments carried at cost for which there is no quoted price on an active market. It was not possible to derive a fair value based on comparable transactions. These investments and shares are immaterial in comparison with the total position of the Group.

The financial receivables roughly correspond to the fair value as due to the amount of the existing receivables no material deviation between the fair value and the carrying amount is assumed and the credit default risk is accounted for by forming valuation allowances.

The remaining terms of trade and other current receivables and liabilities as well as cash and cash equivalents are predominantly short. Therefore, the carrying amounts of these items approximate fair value at the reporting date.

At the two reporting dates, no contractual netting agreement of financial assets and liabilities were in place.

Net results by measurement category in accordance with IAS 39

The effect of financial instruments on the income and expenses recognized in the reporting years 2016 and 2015 is shown in the following table, classified according to the measurement categories defined in IAS 39:

in € million	2016	2015
Net gain on available-for-sale financial assets		
recognized in the statement of profit or loss	2.4	8.2
recognized in other comprehensive income	0.1	(1.0)
reclassified from other comprehensive income to the statement of profit or loss	(0.1)	(4.2)
	2.4	3.0
Net loss from loans and receivables as well as financial liabilities at amortized cost	(13.1)	(19.7)
Net gain/loss on financial assets and financial liabilities classified as held for trading	6.0	(70.3)

The net gain on available-for-sale financial assets recognized in the statement of profit or loss includes income from securities and shares, income from the disposal of securities and shares, income realized from changes in market value originally recognized in other comprehensive income as well as income from reversals of impairment losses and impairment losses.

The net loss arising from loans and receivables as well as financial liabilities includes interest income and expenses, changes in valuation allowances and losses on derecognition, foreign exchange gains and losses as well as expenses related to the measurement of put options.

The net result of financial assets held for trading and financial liabilities includes unrealized results from the measurement of a long-term commodity futures contract as well as changes in the market value and realized results of forward exchange contracts and embedded derivatives in open orders in a currency other than the functional currency of RHI.

Net finance costs include interest income amounting to € 3.1 million (2015: € 5.8 million) and interest expenses of € 17.0 million (2015: € 19.4 million), which result from financial assets and liabilities which are not carried at fair value through profit or loss.

(57) Derivative financial instruments

Commodity futures

The RHI Group concluded a commodity futures contract for electricity for the fusion plant in Porsgrunn, Norway, based on the business plan in November 2011. At the end of 2015, incidents at this site led to a more conservative estimate of future production volumes. In addition, the grade concept for finished products provides for increased use of external raw materials as a result of the plummeting raw material prices. In the current reporting year the production portfolio at the Porsgrunn plant was changed. As the so-called own-use exemption (exemption for own use in accordance with IAS 39.5) no longer applies, the long-term energy supply contract had to be qualified as a financial instrument in accordance with IAS 39 for the first time as of December 31, 2015.

The measurement of the entire term of the contract until the end of the year 2023 at market price level leads to a financial liability of € 49.0 million at December 31, 2016 (12/31/2015: € 58.0 million). The corresponding present value of the cash flows for the agreed electricity supply totals € 97.5 million at December 31, 2016 (12/31/2015: € 103.2 million); the present value of the cash flow at market price amounts to € 48.5 million (12/31/2015: € 45.2 million).

Interest rate swaps

RHI AG has concluded interest rate swaps to hedge the cash flow risk of financial liabilities carrying variable interest rates. Financial liabilities carrying variable interest in the amount of the nominal value of the interest rate swaps were designated as hedged items. The cash flow changes of the hedged items, which result from the changes of the variable interest rates, are balanced out by the cash flow changes of the interest rate swaps. These hedging measures pursue the objective to transform variable-interest financial liabilities into fixed-interest financial liabilities, thus hedging the cash flow from the financial liabilities. Credit risks are not part of the hedge.

The term of two hedging relationships with a nominal volume of € 25.7 million at the reporting date (12/31/2015: € 34.3 million) ends in the financial year 2019. The interest payments from the underlying transaction and the compensation payments from the two interest rate swaps are made quarterly at the end of the quarter.

A hedging relationship with a nominal value of € 50.0 million (12/31/2015: € 50.0 million) runs until the July 31, 2017. The interest and compensation payments for this hedging relationship are due semi-annually at the end of January and at the end of July. The interest expenses are recognized accordingly on a period basis.

Fixed interest rates amount to roughly 0.7% as in the previous year; the variable interest rates are based on the EURIBOR.

The effectiveness of a hedging relationship is tested on a prospective and retrospective basis. The conditions of the interest rate swaps correspond to the conditions of the underlying transaction. In the two reporting years no hedge ineffectiveness had to be recognized through profit or loss.

The fair values of the interest rate swaps totaled € (0.9) million at the reporting date (12/31/2015: € (1.3) million).

Forward exchange contracts

The nominal value and fair value of forward exchange contracts are shown in the table below:

		12/31/2016		12/31/2015	
Purchase	Sale	Nominal value in million	Fair value in € million	Nominal value in million	Fair value in € million
EUR	ZAR	ZAR 100.0	(0.1)	-	-
EUR	USD	USD 90.0	0.4	USD 24.0	0.0
EUR	CNY	EUR 21.7	0.1	EUR 25.7	(0.2)
EUR	CAD	CAD 10.0	0.0	CAD 10.0	0.0
MXN	USD	USD 10.0	0.0	USD 5.0	(0.1)
EUR	INR	EUR 8.9	0.0	EUR 6.3	(0.1)
NOK	EUR	EUR -	-	EUR 11.5	(0.1)
INR	USD	USD -	-	USD 0.2	0.0
Forward exchange contracts			0.4		(0.5)

(58) Financial risk management

Financial risks are incorporated in RHI's corporate risk management and are centrally controlled by Group Treasury.

None of the following risks have a significant influence on the going concern of the RHI Group.

Credit risks

The maximum credit risk from recognized financial assets amounts to € 516.9 million (12/31/2015: € 485.8 million) and is primarily related to investments with banks and receivables due from customers.

The credit risk with banks related to investments (especially cash and cash equivalents) is reduced by the fact that business transactions are generally only carried out with contractual partners with a good credit rating.

In order to counteract the default risk related to these transactions, receivables from customers are hedged as far as possible through credit insurance and collateral arranged through banks (guarantees, letters of credit), even if the contractual partner has a top class credit rating. Credit and default risks are monitored continuously, and provisions are formed for risks that have occurred and for identifiable risks.

In the following, the credit risk from trade receivables is shown classified by customer industry, by foreign currency and by term.

This credit risk, which is hedged by existing credit insurance, letters of credit and bank guarantees, is shown by customer segment in the following table:

in € million	12/31/2016	12/31/2015
Segment Steel	208.6	203.4
Segment Industrial	96.0	96.0
Segment Raw Materials	4.4	5.0
Trade receivables	309.0	304.4
Credit insurance and bank guarantees	(181.5)	(184.4)
Net credit exposure	127.5	120.0

The following table shows the carrying amounts of receivables denominated in currencies other than the functional currencies of the Group companies. The carrying amounts of the receivables in the functional currency of the respective Group company are included under other functional currencies:

in € million	12/31/2016	12/31/2015
US dollar	50.1	48.2
Pound sterling	2.9	4.3
Other currencies	9.3	7.9
Other functional currencies	246.7	244.0
Trade receivables	309.0	304.4

The classification of receivables by days outstanding is shown below:

in € million	12/31/2016	12/31/2015
Neither impaired nor past due at reporting date	217.4	197.7
Not impaired at reporting date and past due in the following time frames		
Less than 30 days	20.5	25.7
Between 30 and 59 days	7.2	7.8
Between 60 and 89 days	2.7	3.4
More than 90 days	12.8	14.2
Impaired at reporting date	81.6	84.6
Valuation allowances	(33.2)	(29.0)
Trade receivables	309.0	304.4

With respect to receivables that were neither impaired nor overdue, there were no indications at the reporting date that the debtors would be unable to meet their payment obligations. No valuation allowance was recognized for overdue receivables amounting to € 43.2 million at the reporting date (12/31/2015: € 51.1 million) and impaired receivables of € 48.8 million (12/31/2015: € 55.6 million) because the risk of default is essentially covered by credit insurance, bank guarantees and letters of credit.

Liquidity risk

Liquidity risk refers to the risk that financial obligations cannot be met when due. The Group's financial policy is based on long-term financial planning and is centrally controlled and monitored continuously at RHI. The liquidity requirements resulting from budget and medium-term planning are secured by concluding appropriate financing agreements. As of December 31, 2016, the RHI Group has a credit facility of € 310.8 million (12/31/2015: € 339.1 million) at its disposal, which is unused and available immediately, as well as unused credit lines from the sale of receivables amounting to € 6.8 million (12/31/2015: € 7.2 million). These lines of credit were concluded with different Austrian and international banks in order to ensure independence of banks. The companies of the RHI Group are integrated into a clearing process managed by Central Treasury and provided with financing limits in order to minimize the need of borrowings for the Group as a whole.

Non-derivative financial instruments

An analysis of the terms of non-derivative financial liabilities based on undiscounted cash flows including the related interest payments shows the following expected cash outflows:

in € million	Carrying amount 12/31/2016	Cash outflows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Liabilities to financial institutions					
fixed interest	214.6	237.6	26.0	140.6	71.0
variable interest	260.9	267.5	133.5	132.3	1.7
Liabilities to fixed-term or puttable					
non-controlling interests	32.5	182.2	9.1	13.0	160.1
Other financial liabilities	7.7	7.8	4.5	3.2	0.1
Trade payables and other current liabilities	217.3	217.3	217.3	0.0	0.0
Non-derivative financial liabilities	733.0	912.4	390.4	289.1	232.9

in € million	Carrying amount 12/31/2015	Cash outflows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Liabilities to financial institutions					
fixed interest	231.5	260.4	22.9	147.2	90.3
variable interest	278.7	289.7	89.0	176.8	23.9
Liabilities to fixed-term or puttable non-controlling interests ¹⁾	31.3	164.4	7.4	12.1	144.9
Other financial liabilities	6.1	6.2	0.1	6.0	0.1
Trade payables and other current liabilities	196.9	196.9	196.9	0.0	0.0
Non-derivative financial liabilities	744.5	917.6	316.3	342.1	259.2

1) Values adjusted for contractually agreed indexing of cash flows.

Derivative financial instruments

The remaining terms of derivative financial instruments based on expected undiscounted cash flow as of December 31, 2016 and December 31, 2015 are shown in the table below:

in € million	Carrying amount 12/31/2016	Cash flows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Financial assets held for trading	1.5	1.5	1.5	0.0	0.0
Liabilities from derivatives with net settlement					
Interest derivatives designated as cash flow hedges	0.9	0.9	0.7	0.2	0.0
Financial liabilities held for trading	49.1	51.9	6.1	31.0	14.8

in € million	Carrying amount 12/31/2015	Cash flows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Financial assets held for trading	2.3	2.3	2.3	0.0	0.0
Liabilities from derivatives with net settlement					
Interest derivatives designated as cash flow hedges	1.3	1.3	0.8	0.5	0.0
Financial liabilities held for trading	58.5	65.7	8.6	32.1	25.0

Foreign currency risks

Foreign currency risks arise especially where business transactions (operating activities, investments, financing) are conducted in a currency other than the functional currency of a company. They are monitored at the group level and analyzed with respect to hedging options. The net position of the Group in the respective currency serves as the basis for decisions regarding the use of hedging instruments.

Foreign currency risks according to IFRS 7 are created through financial instruments which are denominated in a currency other than the functional currency (in the following: foreign currency) and are monetary in nature. Important primary monetary financial instruments include trade receivables and payables, cash and cash equivalents as well as financial liabilities as shown in the statement of financial position. Equity instruments are not of a monetary nature and therefore not linked to a foreign currency risk in accordance with IFRS 7.

The majority of foreign currency financial instruments in the RHI Group result from operating activities, above all from intragroup financing transactions, unless the foreign exchange effects recognized to profit or loss on monetary items, which represent part of a net investment in a foreign operation in accordance with IAS 21, are eliminated or hedged through forward exchange contracts. Significant provisions denominated in foreign currencies are also included in the analysis of risk.

The following table shows the foreign currency positions in the major currencies as of December 31, 2016:

in € million	USD	EUR	MXN	CHF	Other	Total
Financial assets	207.4	64.8	0.1	0.5	30.9	303.7
Financial liabilities, provisions	(156.2)	(37.8)	(14.2)	(6.9)	(17.2)	(232.3)
Net foreign currency position	51.2	27.0	(14.1)	(6.4)	13.7	71.4

The foreign currency positions as of December 31 of the previous year are structured as follows:

in € million	USD	EUR	MXN	CHF	Other	Total
Financial assets	261.7	39.7	0.2	0.7	25.7	328.0
Financial liabilities, provisions	(162.8)	(54.1)	(17.0)	(15.1)	(14.2)	(263.2)
Net foreign currency position	98.9	(14.4)	(16.8)	(14.4)	11.5	64.8

The disclosures required by IFRS 7 for foreign exchange risks include a sensitivity analysis that shows the effects of hypothetical changes in the relevant risk variables on profit or loss and equity. In general, all non-functional currencies in which Group companies enter into financial instruments are considered to be relevant risk variables. The effects on a particular reporting period are determined by applying the hypothetical changes in these risk variables to the financial instruments held by the Group as of the reporting date. It is assumed that the positions on the reporting date are representative for the entire year. The sensitivity analysis does not include the foreign exchange differences that result from translating the net asset positions of the foreign Group companies into the Group currency, the euro.

A 10% appreciation or devaluation of the relevant functional currency against the following major currencies as of December 31, 2016 would have had the following effect on profit or loss and equity (both excluding income tax):

in € million	Appreciation of 10%		Devaluation of 10%	
	Gain/(loss)	Equity	Gain/(loss)	Equity
US dollar	(4.8)	(5.6)	5.9	6.9
Euro	(2.8)	7.7	2.7	(10.1)
Swiss franc	0.6	0.6	(0.7)	(0.7)
Other currencies	(0.1)	(1.2)	0.0	1.4

The hypothetical effect on profit or loss at December 31, 2015 can be summarized as follows:

in € million	Appreciation of 10%		Devaluation of 10%	
	Gain/(loss)	Equity	Gain/(loss)	Equity
US dollar	(9.0)	(13.1)	11.1	16.0
Euro	0.9	11.4	(1.9)	(14.7)
Swiss franc	1.3	1.3	(1.6)	(1.6)
Other currencies	0.4	(0.5)	(0.6)	0.7

Interest rate risks

The interest rate risk in the RHI Group is primarily related to financial instruments carrying variable interest rates, which may lead to fluctuations in results and cash flows. The RHI Group is predominantly exposed to interest risks in the euro area. At December 31, 2016, interest rate hedges amounting to € 75.7 million (12/31/2015: € 84.3 million) existed; a variable interest rate was converted into a fixed interest rate through an interest rate swap.

The exposure to interest rate risks is presented through sensitivity analyses in accordance with IFRS 7. These analyses show the effects of changes in market interest rates on interest payments, interest income and interest expense and on equity.

The RHI Group measures fixed-interest financial assets and financial liabilities at amortized cost, and did not use the fair value option. A hypothetical change in the market interest rates for these financial instruments at the reporting date would have had no effect on profit and loss or equity.

Changes in market interest rates on financial instruments designated as hedges as a part of cash flow hedges to protect against interest rate-related payment fluctuations have an effect on equity and are therefore included in the equity-related sensitivity analysis. If the market interest rate as of December 31, 2016 had been 25 basis points higher or lower, equity would have been € 0.2 million (12/31/2015: € 0.3 million) higher or lower taking into account tax effects.

Changes in market interest rates have an effect on the interest result of primary, variable interest financial instruments whose interest payments are not designated as hedged items as a part of cash flow hedge relationships against interest rate risks, and are therefore included in the calculation of the result-related sensitivities. A change in the level of the market interest rate as of December 31, 2016 by 25 basis points would have no impact on the interest result. In the previous year, the interest result would have been € 0.1 million lower or higher.

Other market price risk

RHI holds certificates in an investment fund amounting to € 15.3 million (12/31/2015: € 20.4 million) to cover the legally required protection of personnel provisions of Austrian Group companies. The market value of these certificates is influenced by fluctuations of the worldwide volatile stock and bond markets.

In the financial year 2015, an energy supply contract with a term until the year 2023 had to be classified as a derivative financial instrument in accordance with IAS 39 for the first time. The fair value of the financial liability amounts to € 49.0 million at December 31, 2016 (12/31/2015: € 58.0 million). If the quoted forward prices at December 31, 2016 had been 20% higher or lower, EBIT would have been € 9.7 million (12/31/2015: € 9.0 million) higher or lower. In contrast, if the borrowing cost relevant for discounting had been 25 basis points higher or lower at the reporting date, EBIT would have been € 0.4 million (12/31/2015: € 0.6 million) higher or lower.

(59) Capital management

The objectives of the capital management strategy of the RHI Group are to secure going concern in the long term by creating a solid capital base to finance future growth, to increase company value on a sustained basis and to generate adequate returns to enable attractive dividend payments to the shareholders and to service debt. In the case of growth through acquisitions, temporary deviations may occur in the key figures presented in the following. The objective is in any case the long-term compliance with the ratios described and the sustainable value increase of the company.

The RHI Group manages its capital structure through internal targets with respect to net financial debt, equity ratio, and net gearing ratio through careful monitoring and assessment of the overall economic framework conditions, the requirements and risks related to operations and taking into account fixed strategic projects.

The capital structure key figures at the reporting date are shown below:

	12/31/2016	12/31/2015
Net debt (in € million)	332.8	397.9
Net debt factor	1.8	2.8
Net gearing ratio (in %)	63.5%	81.0%
Equity ratio (in %)	29.2%	27.2%

Net financial debt, which reflects financial liabilities net of cash and cash equivalents, is controlled centrally by RHI in coordination with Corporate Treasury. The main task of the Corporate Treasury department is to secure liquidity to support business operations on a sustained basis, to use banking and financial services efficiently and to limit financial risks while at the same time optimizing earnings and costs. Due to central controlling, optimum effectiveness is accomplished by utilizing central and local instruments and opportunities.

The key performance indicator for net debt in the RHI Group is the net debt factor, which reflects the ratio of net financial liabilities to EBITDA (earnings before interest, taxes, depreciation and amortization taking into account the reversal of investment subsidies). EBITDA amounts to € 189.1 million (2015: € 140.0 million). The net debt factor is a measure of the ability of a company to repay its debt and amounts to 1.8 for the current financial year. At December 31 of the previous year, it was 2.8. RHI's target is to keep the debt factor below 3.0.

The net gearing ratio is the ratio of net financial debt to equity; it amounts to 63.5% for the current financial year. In the previous year, the net gearing ratio amounted to 81.0%. RHI's internal objective provides for a balanced capital structure with a minimum equity ratio of 30%. The target regarding the net gearing ratio is subsequently derived from the equity ratio.

RHI controls the operating business via the profitability indicator ROACE (Return on Average Capital Employed). This indicator describes the interest on the capital employed in operating business or for an investment. In the RHI Group, ROACE designates the ratio of the net operating profit after taxes (NOPAT) to the average capital employed in the reporting period. Subsequently, the comparison of this profitability key figure with the cost of capital of RHI enables statements with respect to changes in shareholder value. The objective of the RHI Group is a ROACE which exceeds the weighted average cost of capital (WACC) by at least 500 basis points.

in € million	12/31/2016	12/31/2015
Ø Working capital		
Ø Inventories	384.6	416.5
Ø Trade receivables	306.7	317.7
Ø Receivables from long-term construction contracts	11.8	11.4
Ø Trade payables	(189.8)	(176.6)
Ø Prepayments received on orders	(14.5)	(17.3)
	498.8	551.7
Ø Assets		
Ø Property, plant and equipment	527.0	538.2
Ø Goodwill and other intangible assets	110.3	110.9
	637.3	649.1
Average capital employed	1,136.1	1,200.8
EBIT	116.1	37.5
Taxes	(29.9)	(9.8)
Net operating profit after taxes	86.2	27.7
Return on average capital employed (in %)	7.6%	2.3%
Ø RHI WACC (in %)	5.6%	6.7%

The ROACE amounts to 7.6% in the reporting year and exceeds the profitability of 2.3% in the previous year. This is above all attributable to special effects, which were higher in the previous year and were primarily related to expenses from derivatives of supply contracts and to impairments of the cash-generating units Raw Materials/Norway and Industrial/Monofrax. Adjusted for these effects, ROACE amounts to 8.0% for the current financial year and to 7.6% for the previous year.

In the reporting year 2016 and in the previous year, all externally imposed capital requirements were met.

RHI AG is subject to minimum capital requirements of the Austrian Stock Corporation Act. The articles of association do not stipulate capital requirements.

(60) Contingent liabilities

At December 31, 2016, warranties, performance guarantees and other guarantees amount to € 32.0 million (12/31/2015: € 34.3 million), and are exclusively accounted for by third parties. The terms of contingent liabilities range between 2 months and 3 years, depending on the type of liability. Based on experiences of the past, the probability that contingent liabilities are used is considered to be low.

In addition, contingent liabilities from sureties of € 0.7 million (12/31/2015: € 0.9 million) were recorded, of which € 0.3 million (12/31/2015: € 0.3 million) are related to contingent liabilities to creditors from joint ventures.

Individual proceedings and lawsuits which result from ordinary activities are pending as of December 31, 2016 or can potentially be exercised against RHI in the future. The related risks were analyzed with a view to their probability of occurrence. This analysis showed that the proceedings and lawsuits, both individually and overall, have no significant negative influence on the financial position and performance of the RHI Group.

(61) Other financial obligations

Other financial obligations consist of the following items:

in € million	Total	Remaining term		
	12/31/2016	up to 1 year	2 to 5 years	over 5 years
Obligations from rental and leasing contracts	66.7	13.8	32.6	20.3
Capital commitments	2.5	2.5	0.0	0.0
Other financial obligations	69.2	16.3	32.6	20.3

in € million	Total	Remaining term		
	12/31/2015	up to 1 year	2 to 5 years	over 5 years
Obligations from rental and leasing contracts	66.0	13.0	35.7	17.3
Capital commitments	1.6	1.6	0.0	0.0
Other financial obligations	67.6	14.6	35.7	17.3

Other financial obligations are exclusively due to third parties. They are shown at nominal value.

Rental and leasing obligations for property, plant and equipment of € 21.8 million (2015: € 23.8 million) are recognized in the statement of profit or loss of the financial year 2016.

The conditions of the most important operating rental and leasing agreements can be summarized as follows:

At the company's head office in Vienna a rental agreement exists, which ends on October 28, 2020. Both contracting parties are entitled to terminate the rental agreement prematurely with a notice period of six months. However, the landlord may only exercise this right under certain conditions. The rent is adjusted to the consumer price index.

Another rental contract for offices has a term until April 30, 2020. The tenant has a two-time optional right to extend the contract by three years each. The annual rent is coupled to the development of the consumer price index.

At one production site, the area for operating a plant has been leased for the long term. The related contract ends in April 2062 and includes an extension option for another 30 years. The rent is subject to adaptation to inflation.

The Group also rents numerous mining vehicles, diggers, forklifts and the like by cancelable leasing agreements. The contracts have terms ranging from 2 to 7 years; most of them do not include a purchasing option after the contract ends.

In addition to the aforementioned financial obligations, the RHI Group also has long-term purchase obligations related to the supply with raw materials, especially for electricity, natural gas, strategic basic and non-basic raw materials as well as for the transport of raw materials within the Group. This results in other financial obligations of the nominal value of € 193.3 million at the reporting date (12/31/2015 adjusted: € 255.0 million). The remaining terms of the contracts amount to up to eight years. Purchases from these arrangements are recognized in accordance with the usual course of business. Purchase contracts are regularly reviewed for imminent losses, which may occur, for example, when requirements fall below the agreed minimum purchase volume or when contractually agreed prices deviate from the current market price level. A power supply contract with a remaining term of seven years is accounted for in accordance with IAS 39. As market prices on the reporting date were lower than the contractually agreed prices, this leads to a financial liability amounting to € 49.0 million (12/31/2015: € 58.0 million). This power supply contract is included in the total value of € 193.3 million at December 31, 2016 with a nominal value of € 103.0 million (12/31/2015: € 116.3 million).

(62) Planned combination with Magnesita

RHI AG ("RHI") and the controlling shareholders of Magnesita Refratários S.A. ("Magnesita"), investment vehicles affiliated with GP Investments ("GP") and Rhône Capital ("Rhône," and together with GP, "Magnesita's Controlling Shareholders") reached an agreement on October 5, 2016 to combine the operations of RHI and Magnesita to create a leading refractory company to be named RHI Magnesita. Accordingly, RHI's Management Board agreed on October 5, 2016 to sign a share purchase agreement ("SPA") with Magnesita's Controlling Shareholders regarding the acquisition of a controlling stake of at least 46%, but no more than 50% plus one share of the total share capital in Magnesita (the "Transaction") pending RHI's Supervisory Board approval. At its meeting on October 13, 2016, the Supervisory Board of RHI AG gave its approval to the resolutions proposed by the Management Board regarding this Transaction. The purchase price for the 46% stake will be paid in cash amounting to € 118 million and 4.6 million new shares to be issued by RHI Magnesita, a new RHI entity to be established in the Netherlands and listed in London. The exchange ratio applied in the Transaction is 0.19 newly issued RHI Magnesita shares for 1 Magnesita share. Based on RHI's six-month volume weighted average price of € 19.52 as of October 4, 2016, the implied value of the 46% stake amounts to € 208 million, implying a value for Magnesita's entire share capital of € 451 million. The calculation is based on 10 million newly issued RHI Magnesita shares and 52,631,881 Magnesita shares.

As a result of the Transaction, GP will become a relevant shareholder of RHI Magnesita. The combined company's corporate governance will be constituted on a one-tier board structure while GP will be represented on the board of directors. All RHI Magnesita shares issued as a result of the Transaction and subsequent mandatory tender offer will be subject to a minimum 12-month lock-up period. The completion of the Transaction is amongst others subject to (i) approvals by the relevant competition authorities, (ii) the migration of RHI to the Netherlands, (iii) the listing of RHI Magnesita's shares in the premium segment of the Official List on the Main Market of the London Stock Exchange and (iv) RHI's shareholders not having exceeded statutory withdrawal rights in an amount of more than € 70 million in connection with organizational changes preceding RHI's migration from Austria. The migration and the preceding organizational changes in Austria require qualified approval by RHI's shareholders' meeting. As a consequence of the Transaction, RHI Magnesita will become the ultimate holding company of RHI Group while the shareholders of RHI will cease to hold shares in RHI and instead hold RHI Magnesita shares. Following registration of the corporate restructurings, RHI's shares cease to be listed on the Vienna Stock Exchange. The place of effective management of RHI Magnesita will be Austria. If the Transaction is terminated for reasons not under the control of Magnesita's Controlling Shareholders, an aggregate break fee of up to € 20 million is payable by RHI to Magnesita's Controlling Shareholders.

Following completion of the Transaction, which is expected for 2017, a mandatory tender offer will be launched by RHI Magnesita or one of its affiliates for the remaining shares in Magnesita ("Offer"). The Offer will include the option to sell shares on the same payment terms as the Transaction as well as a cash-only alternative amounting to € 8.19 per Magnesita share (subject to certain adjustments according to the SPA). As part of the Offer, a maximum number of 5.0 to 5.4 million RHI Magnesita shares will be issued, depending on the stake acquired within the Transaction, thereby resulting in an aggregate number of no more than 10.0 million newly issued shares to finance the acquisition. If some or all of Magnesita's other shareholders elect not to receive RHI Magnesita shares in the Offer, Magnesita's Controlling Shareholders have committed to purchase at least 1.5 to 1.9 million and at most 3.4 million additional new RHI Magnesita shares, thereby increasing their total number of RHI Magnesita shares to a maximum of 8.0 million. RHI Magnesita may decide to combine the Offer with a delisting offer and/or a voluntary offer to exit Magnesita from the "Novo Mercado" listing segment. The Offer will follow applicable Brazilian laws and regulations. Any RHI Magnesita shares that are not taken up in the Offer by Magnesita's shareholders may be either placed into the market or with institutional investors.

The Transaction will be financed by additional debt and the issuance of 4.6 to 5.0 million RHI Magnesita shares to Magnesita's Controlling Shareholders. At the same time, Magnesita will continue to finance itself on a standalone basis without credit support from RHI Group. Before or at completion of the Transaction, Magnesita is expected to adopt RHI's accounting practices, which could lead to significant, however substantially non-cash adjustments in Magnesita's book equity value.

The planned combination of RHI and Magnesita was submitted in the US and approved by the Federal Trade Commission in November. Currently, further applications with antitrust authorities, among others in Europe and Brazil, are being prepared or implemented.

(63) Expenses for the Group auditor

The expensed fee for the activity of the Group auditor PwC Wirtschaftsprüfung GmbH in the financial year 2016 (2015: Deloitte Audit Wirtschaftsprüfungs GmbH) amounts to € 0.3 million (2015: € 0.3 million). The fee included € 0.2 million (2015: € 0.2 million) for the audit of the consolidated financial statements and the annual financial statements of RHI AG, and € 0.1 million (2015: € 0.1 million) for other certification services. The fees for other certification services include the remuneration for the audit of the annual financial statements of Austrian subsidiaries subject to statutory audits.

(64) Annual average number of employees

The average number of employees of the RHI Group based on full time equivalents amounts to:

	2016	2015
Salaried employees	3,544	3,739
Waged workers	4,134	4,296
Number of employees on annual average	7,678	8,035

(65) Notes on related party transactions

Related companies include subsidiaries that are not fully consolidated, joint ventures and MSP Foundation, Liechtenstein (until 12/28/2015: MS Private Foundation, Austria) as a shareholder of since it exercises significant influence based on its share of more than 25% in RHI AG. In accordance with IAS 24, the personnel welfare foundation of Stopinc AG, Hünenberg, Switzerland, also has to be considered a related company.

Related persons are persons holding a key position in the Group (active members of the Management Board and the Supervisory Board of RHI AG) and their close relatives.

Related companies

In the financial year 2016, the Group charged electricity and stock management costs amounting to € 3.3 million (2015: € 3.4 million) and interest of € 0.1 million (2015: € 0.1 million) to the joint venture MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria. In the previous year, the Group also realized income from property sales of € 0.7 million to MAGNIFIN. In the reporting period, the Group purchased raw materials in the amount of € 1.9 million (2015: € 1.9 million). Furthermore, the Group received dividend payments of € 9.5 million (2015: € 8.2 million). At December 31, 2016 receivables from MAGNIFIN amount to € 1.0 million (12/31/2015: € 1.6 million); there are no liabilities (12/31/2015: less than € 0.1 million). Neither in the reporting period nor in the previous financial year were valuation allowances recorded for receivables from this company. The balance at the end of the financial year is unsecured and will be paid in cash. To secure a pension claim of a former employee of MAGNIFIN, RHI has assumed a surety amounting to € 0.3 million (12/31/2015: € 0.3 million). A resulting cash outflow is not expected. No guarantees were received.

Business transactions with non-consolidated subsidiaries are not listed as they are of minor significance.

In the financial years 2016 and 2015 no transactions were carried out between the RHI Group and MSP Foundation (2015: MS Private Foundation), with the exception of the dividend paid.

A service relationship with respect to the company pension scheme of the employees of Stopinc AG exists between the personnel welfare foundation of Stopinc AG and the fully consolidated subsidiary Stopinc AG. Stopinc AG makes contribution payments to the plan assets of the foundation to cover pension obligations. The pension plan is recognized as a defined benefit plan and is included in note (27). At December 31, 2016 current account receivables of € 0.8 million (12/31/2015: € 0.8 million) from the personnel welfare foundation exist, for which an interest of 2.5% (2015: 2.5%) is charged. In the past reporting period, employer contributions amounting to € 0.5 million (2015: € 0.5 million) were made to the personnel welfare foundation. The overfunding of the pension plan is recognized as a non-current asset of € 2.1 million (12/31/2015: € 2.1 million).

Related persons

Remuneration of key management personnel of the Group, which is subject to disclosure in accordance with IAS 24, comprises the remuneration of the active Management Board and Supervisory Board of RHI AG.

The expenses for the remuneration of the Management Board in the financial year 2016 recognized in the statement of profit or loss totals € 10.1 million (2015: € 4.1 million). The expenses not including non-wage labor costs amount to € 9.4 million (2015: € 3.8 million), of which € 4.6 million (2015: € 3.4 million) were related to current benefits (fixed, variable and other earnings), € 2.9 million (2015: € 0.0 million) to benefits related to the termination of employment and € 1.9 million (2015: € 0.4 million) to share-based remuneration. At December 31, 2016, liabilities for performance-linked variable earnings and share-based payments for active members of the Management Board of € 1.6 million (12/31/2015: € 1.2 million) are recognized as liabilities. There are no obligations arising from post-employment benefits and legally required termination benefits towards active members of the Management Board.

In addition to the variable remuneration, the members of the Management Board of RHI AG active in 2016 and 2015 are also entitled to share-based payments. This program is a performance-linked and share-based compensation model, in which the vesting period per tranche extends over the respective financial year. At the beginning of the program, a portion of the annual salary is defined for the members of the Management Board, which is translated into a number of virtual shares using a reference price. The relevant reference price for the remuneration program of the respective financial year corresponds to the average RHI share price from December 1 of the previous year to January 31 of the current reporting year. The actual, vested entitlement to virtual shares depends on the level of target achievement; financial criteria (operating EBIT, ROACE, adjusted for external costs related to the planned combination of RHI and Magnesita) determine 70% and other criteria 30% of the entitlement. The equivalent value of the number of virtual shares determined per tranche will be paid in cash in the three equal portions in the following three financial years. This equivalent value in cash is determined on the basis of the average share price of the respective period from December 1 of the reporting year to January 31 of the following year.

The effects of this compensation program on the consolidated financial statements are shown in the table below:

	Number of virtual shares		Provision in € million		Expense in € million	
	12/31/2016	12/31/2015	12/31/2016	12/31/2015	12/31/2016	12/31/2015
Compensation program 2016	73,042	0	1.7	0.0	1.8	0.0
Compensation program 2015	14,781	22,171	0.4	0.4	0.1	0.4
Total	87,823	22,171	2.1	0.4	1.9	0.4

In the financial year 2016 a payment of € 0.1 million was made for the first time for the compensation program 2015.

For members of the Supervisory Board (capital representatives), remuneration totaling € 0.3 million (2015: € 0.3 million) was recognized through profit or loss in the year 2016.

Employee representatives in the Supervisory Board, who are employed by the RHI Group, do not receive compensation for their activity in the Supervisory Board. For their activity as employees in the company and the activity of their close relatives employed with RHI, expenses of € 0.8 million (2015: € 0.8 million) are recognized. This group of persons received 176 (2015: 148) RHI shares in the reporting year as part of the employee stock ownership plan "4 plus 1".

No advance payments or loans were granted to members of the Management Board or Supervisory Board. The RHI Group did not enter into contingent liabilities on behalf of the Management Board and Supervisory Board.

In the previous year, the company had an obligation to pay one member of the Management Board a compensation of up to € 1.8 million in the case of a public takeover bid.

Directors Dealings reports are published on the websites of RHI AG and of the Austrian Financial Market Authority. All members of the Management Board and the Supervisory Board are covered by D&O insurance at RHI.

Detailed and individual information on the remuneration of the Management Board and the Supervisory Board is presented in the Corporate Governance Report 2016 of the RHI Group.

Earnings of former members of the Management Board amounted to € 1.2 million (2015: € 1.1 million).

(66) Corporate bodies of RHI AG

Members of the Management Board

Stefan Borgas, Vienna, Chairman (since December 1, 2016)
Franz Struzl, Vienna, Chairman (until November 30, 2016)
Wolfgang Rutenstorfer, Vienna, Chairman (on interim basis from June 26, 2016 to November 30, 2016)
Barbara Potisk-Eibensteiner, Hagenbrunn
Franz Buxbaum, Bad Vöslau (until December 31, 2016)
Thomas Jakowiak, Vienna (since January 1, 2016)
Gerd Schubert, Vienna (since January 1, 2017)
Reinhold Steiner, Trofaiach

Members of the Supervisory Board

Herbert Cordt, Vienna, Chairman
Helmut Draxler, Vienna, Deputy Chairman
Wolfgang Rutenstorfer, Vienna, Deputy Chairman (until June 25, 2016; from December 1, 2016)
Hubert Gorbach, Frastanz
Alfred Gusenbauer, Vienna
Gerd Peskes, Düsseldorf, Germany
Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg, Munich, Germany
David A. Schlaff, Vienna

Employee representatives:

Walter Geier, Leoben
Christian Hütter, Vienna
Roland Rabensteiner, Veitsch
Franz Reiter, St. Jakob in Haus

(67) Material events after the reporting date

After the reporting date on December 31, 2016, there were no events of special significance which may have a material effect on the financial position and performance of the RHI Group.

Vienna, March 10, 2017

Management Board
Der Vorstand



Stefan Borgas
CEO



Barbara Potisk-Eibensteiner
CFO



Gerd Schubert
COO
CTO R&D



Thomas Jakowiak
CSO Industrial Division



Reinhold Steiner
CSO Steel Division

We draw attention to the fact that the English translation of this auditor's report according to Section 274 of the Austrian Commercial Code (UGB) is presented for the convenience of the reader only and that the German wording is the only legally binding version.

Auditor's Report

Report on the Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of RHI AG, Vienna, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2016, the separate consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of cash flows and the consolidated statement of changes in equity for the fiscal year then ended, and the notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements comply with legal requirements and give a true and fair view of the financial position of the Group as at December 31, 2016, and of its financial performance and cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRSs) as adopted by the EU and the additional requirements under Section 245a Austrian Commercial Code.

Basis for Opinion

We conducted our audit in accordance with Austrian generally accepted auditing standards. Those standards require the application of the International Standards on Auditing (ISAs). Our responsibilities under those provisions and standards 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 in accordance with Austrian Generally Accepted Accounting Principles and professional requirements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Matter

The consolidated financial statements of RHI AG, Vienna, for the fiscal year ended December 31, 2015 were audited by another auditor who issued an unqualified auditor's report dated March 4, 2016 on these consolidated financial statements.

Key Audit Matters

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

We have structured key audit matters as follows:

- Descriptions of individual key audit matters
- Audit approach
- Reference to related disclosures

1. Deferred tax assets on tax loss carry-forwards and other deductible temporary differences

- Description of the individual key audit matter

The RHI Group capitalized deferred tax assets in a total amount of EUR 144.8m, which mainly include deferred tax assets on tax loss carry-forwards in the amount of EUR 61.8m and deductible temporary differences arising on provisions for employee benefits in the amount of EUR 52.7m. Deferred tax assets are capitalized based on the assumption that sufficient taxable income will be generated within a planning period of at least 5 years against which loss carry-forwards and other deductible temporary differences can be offset. These assumptions are based on estimates of the current and the planned taxable results and any future measures implemented by the companies concerned that will have an effect on tax.

- Audit approach

We:

- Identified, for significant companies, the process used to determine the future taxable results that serve as the basis for the calculation of deferred tax assets,
- Performed plausibility checks for significant companies to evaluate if the budgeted figures used are plausible when compared to our knowledge of the planned course of business,
- Received tax advisor confirmation letters to confirm the existence and accuracy of the tax loss carry-forwards,
- Analyzed and confirmed the accounting assumptions on the possibility to utilize tax loss carry-forwards and deductible temporary differences, and
- Audited the presentation and the disclosures in the notes to the consolidated financial statements.

- Reference to related disclosures

For further related information, we refer to the notes to the consolidated financial statements of the RHI Group item (7) on principles of accounting and measurement on deferred taxes, item (9) with regard to discretionary decisions, assumptions and estimates on income taxes, and item (16) concerning deferred taxes.

2. Impairment of property, plant and equipment, goodwill and other intangible assets

- Description of the individual key audit matter

The RHI Group capitalized property, plant and equipment in the amount of EUR 521.8m, goodwill in the amount of EUR 37.8m and intangible assets in the amount of EUR 71.1m. These assets form cash-generating units (or CGUs for short) to the extent that they independently generate cash inflows. If and to the extent to which these CGUs include goodwill or intangible assets with indefinite useful lives or show signs for impairment, the carrying amount and the recoverable amount are compared. Annual planning process data is used to make assumptions on the discount rate, profitability as well as growth rates, and sensitivity analyses are carried out with regard to any accounting effects.

- Audit approach

We:

- Surveyed the process applied to identify and define cash-generating units, to calculate the recoverable amount, to test for impairment, to calculate the capital cost rate and the growth rate, as well as the calculation model,
- Reconciled the assumed future cash flows used in the budget planning with the information included in the forecast made by the management board and brought to the attention of the supervisory board,

- Drew on our pool of internal experts to perform plausibility checks with regard to the calculations and the calculation model. These experts recomputed the calculations and verified that the calculation model complies with the generally applicable international accounting principles,
 - Drew on our pool of internal experts to reconcile the parameters used, e.g. the applied interest rates and growth rates that serve as the basis of the calculation, and critically assessed the results, and
 - Audited the presentation and the disclosures in the notes to the consolidated financial statements.
- Reference to related disclosures

For further related information, we refer to the notes to the consolidated financial statements of the RHI Group item (7) on principles of accounting and measurement on the impairment of property, plant and equipment, goodwill and other intangible assets, and item (9) with regard to discretionary decisions, assumptions and estimates on the impairment of intangible assets with finite useful lives and property, plant and equipment, as well as on the impairment of goodwill and the impairment of other intangible assets with indefinite useful life.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the EU, and the additional requirements under Section 245a UGB, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The audit committee is responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Austrian generally accepted auditing standards, which require the application of ISAs, 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.

As part of an audit in accordance with Austrian generally accepted auditing standards, which require the application of ISAs, 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, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risks 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 control.
- obtain an understanding of internal control relevant to the audit 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 the Group's internal control.

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. 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 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 represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee 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 the audit committee with a statement that we have complied with all relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Comments on the Management Report for the Group

Pursuant to the Austrian Commercial Code, the management report for the Group is to be audited as to whether it is consistent with the consolidated financial statements and as to whether the management report for the Group was prepared in accordance with the applicable legal requirements.

Management is responsible for the preparation of the management report for the Group in accordance with the Austrian Commercial Code.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the management report for the Group.

Opinion

In our opinion, the management report for the Group was prepared in accordance with the applicable legal requirements, includes accurate disclosures pursuant to Section 243a UGB and is consistent with the consolidated financial statements.

Statement

Based on the findings during the audit of the consolidated financial statements and due to the obtained understanding concerning the Group and its circumstances no material misstatements in the management report for the Group came to our attention.

Other information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the management report for the Group and the auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsible Engagement Partner

Responsible for the proper performance of the engagement is Mr. Aslan Milla, Austrian Certified Public Accountant.

Vienna, March 10, 2017

PwC Wirtschaftsprüfung GmbH

signed:

Aslan Milla
Austrian Certified Public Accountant

This report is a translation of the original report in German, which is solely valid. Publication and sharing with third parties of the consolidated financial statements together with our auditor's opinion is only allowed if the consolidated financial statements and the management report for the Group are identical with the German audited version. This audit opinion is only applicable to the German and complete consolidated financial statements with the management report for the Group. For deviating versions, the provisions of Section 281 (2) UGB apply.

**Statement of the Management Board
in accordance with § 82 (4) of the
Austrian Stock Exchange Act**

Statement of the Management Board in accordance with § 82 (4) of the Austrian Stock Exchange Act

We confirm to the best of our knowledge that the consolidated financial statements, which were prepared in accordance with International Financial Reporting Standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and that the Group management report gives a true and fair view of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties the Group faces.

Vienna, March 10, 2017

Management Board



Stefan Borgas
CEO



Barbara Potisk-Eibensteiner
CFO



Gerd Schubert
COO
CTO R&D



Thomas Jakowiak
CSO Industrial Division



Reinhold Steiner
CSO Steel Division