

Helping shape the world

Annual Report 2019



RHI MAGNESITA



We are RHI Magnesita

We are helping shape today's world. Our products touch many areas of modern life. From steel, cement and glass to copper and aluminium. From the bridges that connect us, to the vehicles that cross them. The work we do may be hidden from view, but the value we add is considerable.

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Group highlights



Innovation

A portfolio based on innovative technologies and digitalisation



Read more on
page 30

See our Strategic priorities
in action

Page 13

Financial highlights

Revenue

€2.9bn

2019 €2.9bn

2018 €3.1bn¹

Adjusted EBITA

€408m

2019 €408m

2018¹ €448m

Adjusted EBITA margin

14.0%

2019 14.0%

2018¹ 14.3%

Working capital intensity²

18.3%

2019 18.3%

2018 15.4%

Net debt/adjusted EBITDA³

1.2x

2019 1.2x

2018⁴ 1.3x

Available liquidity⁵

€1.1bn

Operational highlights

0.28

Lost time injury frequency rate (LTIF)
Improvement from 0.43 in 2018

€64m

Spend on technology – 2.2% of annual
revenues

€70–80m €90m

Run rate cost savings by 2022
identified for the Production
Optimisation plan and Sales strategies

Synergies realised since 2017

1 On a constant currency basis.

2 Measured as a percentage of last three months of annualised revenue.

3 Net debt comprises of total debt less cash, cash equivalents, and marketable securities.

4 Adjusted to include the impact of IFRS 16 leases to improve comparability between periods.

5 Available liquidity comprises cash, cash equivalent, and €600 million of undrawn committed facilities.

At a glance

Refractory products are used in all the world's high-temperature industrial processes, exceeding 1,200°C in a wide range of industries including steel, cement, non-ferrous metals and glass.

Sectors

Steel

The Steel Division provides its customers products and services for steel production, consisting of refractories (basic and non-basic mixes and bricks), machinery, flow control systems, and broader solutions.

Industrial

The Industrial Division provides a range of products and services for the cement, lime, non-ferrous metals and glass industries as well as the environment, energy and chemicals ("EEC") sector, and broader solutions.

Revenue (Steel Division):

€2,018m

(2018: €2,253 million)¹

Gross profit of

€467m

representing 23.1% gross margin
(2018: 24.2% gross margin)¹

Revenue (Industrial Division):

€904m

(2018: €873 million)¹

Gross profit of

€250m

representing 27.7% gross margin
(2018: 24.2% gross margin)¹

People, Culture & Sustainability

The people and culture agenda is built on attracting the best talent, creating a culture ready for transformation, and further developing its people. This is underpinned by its leaders, who are critical to driving the long-term and sustainable success of RHI Magnesita.






 Read more on
pages 28 and 29

¹ Adjusted for 2019 foreign exchange rates.

² Employees at 31 December 2019.

Where we operate

Optimally positioned to provide products, services and solutions for clients around the globe.

-  Headquarters
-  Technology hubs
-  Raw materials production
-  Finished refractory products production
-  Raw materials and finished refractory products production



Countries shipped to

125+



Employees²

13,650+



Sales offices

70+



Finished goods sites

19



Combined sites

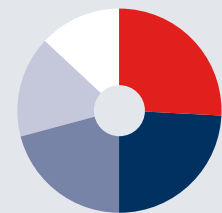
8



Raw material sites

5

Revenue split by geography



-  Europe 26%
-  North America 24%
-  APAC 21%
-  South America 16%
-  MEA-CIS 13%

Clear and compelling investment case

**1**

Opportunity for further growth in refractories margin

Stable and growing refractories margin, at 9% in 2019

Further €95-115 million EBITA upside by 2022 from fast-payback management "self help"

Additional margin contribution from backward integration, albeit varying with prevailing raw materials pricing (long-term margin of at least 2%)

2

Strong cash conversion and robust balance sheet

Strong cash flow generation – operating free cash flow of €359 million.

Robust balance sheet with leverage at 1.2x net debt to adjusted EBITDA

Capital flexibility to pursue both growth and shareholder returns



3

Strong competitive position

Market leader with a global footprint and a "local for local" strategy with 15% global market share (30% ex-China). Clear market leadership in Americas, Europe and Middle East

Technical leadership, with opportunity to develop technology and digital solutions across regions and portfolio

Low-cost, high-quality backward integration providing security of supply of raw materials and unique solutions for the market, alongside high return on assets



4

Growth opportunity from new markets, solutions offering and M&A

Opportunity to grow materially in under-represented markets such as India and China

Greater penetration of value-added solutions offering to customers, improving margins and retention

Opportunity for further consolidation through M&A

How we create value

As the leading company in the refractory industry, RHI Magnesita has developed a resilient business model to create value sustainably for all our stakeholders across the world.

Strengths and differentiators

1

Largest global footprint

Benefiting from scale and proximity to customers through our unique global footprint with more than 70 sales offices worldwide and services customers in more than 125 countries around the world.

2

Full suite of products and services

Delivering value through more than refractory materials to address our customers' needs, such as digital services, logistical services and technical services.

3

Skilled and motivated people

The knowledge, competency and customer focus of c.13,650 employees will be the key to driving long-term success.

4

Strong relationships with stakeholders

We operate with integrity, honesty and reliability on a daily basis, ensuring respectful relationships amongst employees and with all customers, suppliers, shareholders and business partners.

5

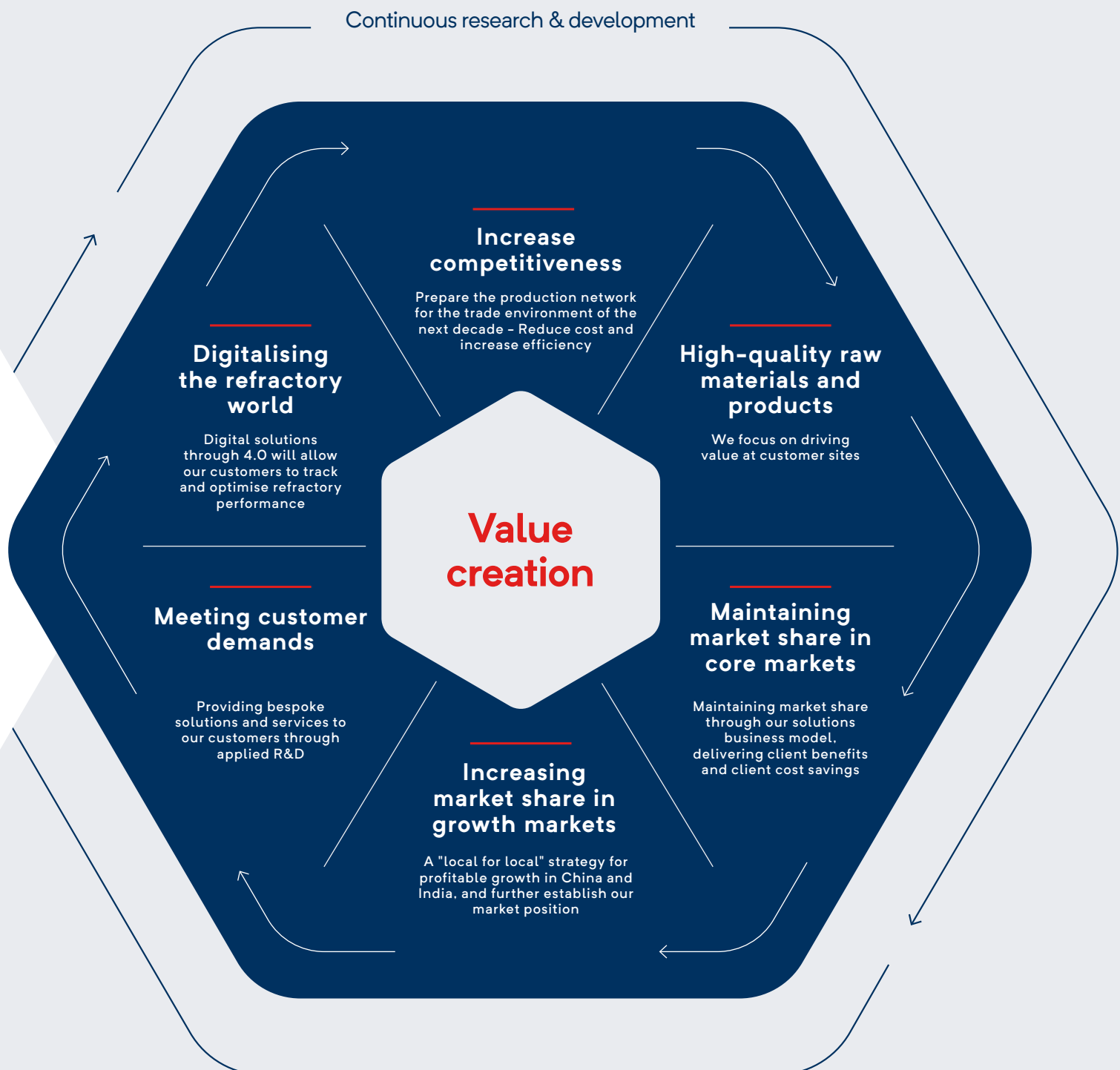
Financial capital

Our focus on working capital management and cash generation remains strong; we continue to be well financed with high liquidity and a robust balance sheet.

6

Backward integration

With an integrated value chain, RHI Magnesita benefits from the security of supply of high quality raw materials.



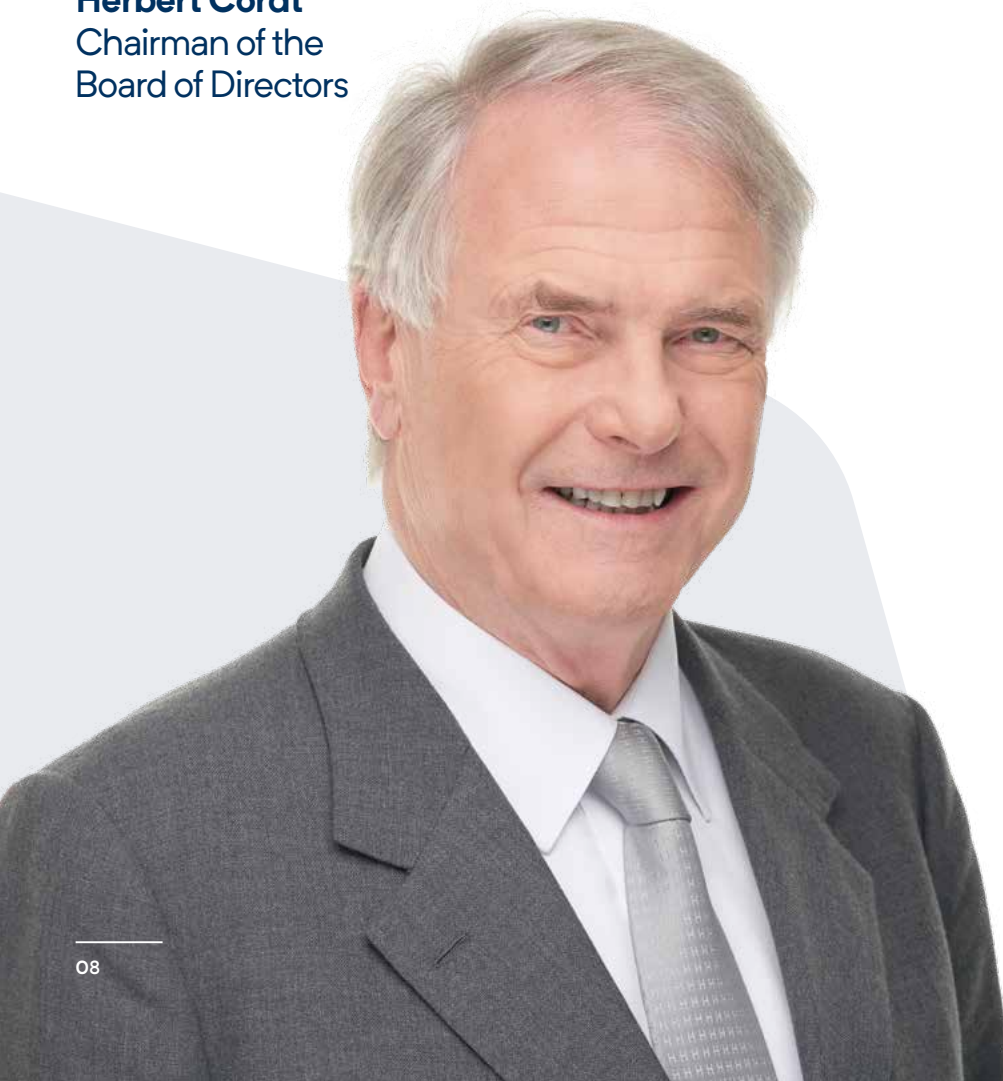
Chairman's statement



2019 has, in many aspects, been a year of considerable progress for RHI Magnesita, it has had (and continues) to navigate in a most challenging global market environment. It's a credit to the management that they have continued to successfully execute the long-term strategy.



Herbert Cordt
Chairman of the
Board of Directors



My report to you in 2018 covered your Company's first full year since we gained a listing in the Premium Segment of the London Stock Market in late 2017. In that report I outlined our strategic priorities, how we were committing to sustainability in the context of climate change, our commitment to cultural diversity and the wider governance agenda as well as our obligations to you, our shareholders. Whilst I have heard it said that business is a journey without end, it is only appropriate that my annual report candidly reviews how we have performed in the past 12 months in these critically important areas.

2019 in summary

Let me start my report to you by reviewing the integration progress of RHI and Magnesita, two leading refractory companies with headquarters in different continents and which were brought together only in November 2017. In 2019, we completed the planned and successful final phase of this integration. Critically, this has resulted in one integrated management team and delivered €90 million of cost savings.

As you read our 2019 Annual Report, you will note that whilst 2019 has, in many aspects, been a year of considerable progress for RHI Magnesita, it has had (and continues) to navigate in a most challenging global market environment. It's a credit to the management that they have continued to successfully execute the long-term strategy. We have retained our position as the technology leaders in the refractory industry and reinforced our market position. With these global headwinds our financial performance fell short of our original plans, however, we delivered a resilient performance of profitability and free cash flow generation. Also against this background, we remain confident that our strategy and growth plans will deliver superior returns to our shareholders and all stakeholders.

Strategic priorities

Our strategy remains based on three major pillars:

- **Competitiveness:** we will continue with our programme that optimises our supply chain from the mine to the market, improving service levels and cost-effectiveness.
- **Business model:** we will enhance our business by driving the development and implementation of innovative product and customer solutions with an increased focus on energy and emission reduction.
- **Markets:** we aim to maintain our leadership position in core product and geographic markets that are growing.

You can read more about our strategies and priorities on page 13.

Sustainability

RHI Magnesita is the leading global supplier of refractory products, services and solutions essential in the production of Steel, Cement, Glass and Copper and other critical products that are the basic infrastructure materials indispensable for the needs of 21st century life. Not only are we committed to a material reduction in our own emissions, but perhaps of greater importance is our ability to assist our customers, largely significant energy users themselves, that by adopting our innovative products and systems they can also reduce their own energy consumption and emissions.

The climate crisis is the defining challenge of our times and it continues to be a focus of your Company. The emission reduction plans we have in place will drive down our CO₂ emissions Scope 1, 2 and 3 (raw materials) by 15% by 2025, compared to 2018. Additionally, I was pleased to note that our first submission to the CDP, (formerly the Carbon Disclosure Project), where the Company received a "C" rating.

The establishment of our own Corporate Sustainability Committee ("CSC") will provide a major input to the Board's deliberations on this critical matter and is a further demonstration of our commitment. A full report on the work of the CSC can be found on page 92.

Corporate Governance and Diversity

Whilst my report to you covers 2019, I am of course conscious of the review published by the Financial Reporting Council in January 2020 and its call for improved governance from all plcs. As still a "young" member of the London Stock Exchange and despite having less than 1% of our employees based in the UK, we are committed to these principles which we believe will indeed promote sustainability and trust in business.

These matters are reported in depth, within our Corporate Governance report on pages 74 to 121. But let me now touch on some of the key matters.

During the year I was delighted to welcome two new Directors to the Board, namely Janet Ashdown and Fiona Paulus. Both brought new skills and experience (see page 87) to the Board table and now play a significant part in the Board's affairs. Both are contributing to our governance programme and as members of our committees and Janet also chairs our newly established Corporate Sustainability Committee.

As a result of Janet and Fiona's appointments, your Board now has 23% female Directors (excluding the employee nominated Directors), and we have plans to increase this to over a third

during 2021. It is also worth mentioning that in the Executive Management Team, 22% are also female. As a truly international business we have plants in 15 countries. Another measure of our diversity is reflected in the 37 different nationalities we have in senior management roles. In 2019, we also launched our global Diversity & Inclusion Strategy, focusing on gender, international representation and generation management. You can read further information on our diversity goals on page 71.

The Directors are also constantly striving to improve their practical knowledge of our business and its operations. This in turn adds to their ability to question and challenge the executive both in strategic and performance terms. Part of this knowledge building is our programme of site visits. In 2019, the Board travelled to Brumado and Contagem in Brazil. The visit also gave Directors the opportunity to meet local management, plant employees, tour a mine and the R&D centre. In addition, the Directors visited a major customer, one of Brazil's largest steel mills. At first-hand, the Directors experienced the culture of these operations and the local opportunities and challenges.

The Board

There were several Board changes in 2019. Firstly, we said goodbye to Fersen Lambranh, who stepped down from the Board on 21 January 2019. I'd like to use this opportunity to thank Fersen for his significant contribution.

As mentioned above, following the 2019 Annual General Meeting ("AGM") Fiona Paulus and Janet Ashdown were appointed as new Non-Executive Directors.

I would also like to record the appointment of Ian Botha, who joined the Company in April 2019 as Chief Financial Officer and who was also appointed as an Executive Director at the 2019 AGM. Ian has moved with his family from South Africa to live in Vienna, and has already contributed much to the development of the Company.

Shareholder returns

As I have said, the Company has not been immune from the difficult and challenging global markets and trading conditions, particularly in the second half of 2019, and now with the uncertainty of COVID-19. However our margins and cash flows have remained resilient and we remain confident that our strategy and focus will, in the long term, deliver attractive shareholder returns.

Despite the Group's strong financial position, the uncertainty relating to COVID-19 means that alongside the efficiency measures we are taking to preserve cash, the Board has decided not to recommend the payment of a final dividend for 2019. This decision will be reviewed later in the year once the outlook becomes clearer. The Board believes that this is an appropriate and prudent measure to take as it seeks to preserve RHI Magnesita's strong liquidity, cashflow and financial position through these uncertain times.

Share buybacks remain as an integral part of the Company's capital allocation policy and our approach to total shareholder returns. The Board regularly considers whether it is appropriate to commence the purchase of RHI Magnesita's own shares and in doing so takes into account, amongst other factors, investment opportunities, the prevailing value of the company, its share price, dividend, liquidity and cash resources, etc. This policy will continue going forward.

Conclusion

Your Company is a truly international company, with operations in 39 countries and in all five continents. In reflecting on the characteristics that I believe are essential in building a world class and high performing company, I would suggest the following must be an integral part of its makeup.

- Committed, talented and diverse employees with high integrity.
- Market leading and innovative products designed to improve the efficiency of our customers whilst contributing to improving the environment of the world in which we live.
- Have a global presence where we can be a 'local' supplier to our global customers.
- Possess a culture that is committed to continual success over the long term for our shareholders and all our stakeholders.

I believe that RHI Magnesita is such a company armed with a strategy that will deliver.

I could hardly conclude my report to you without mentioning COVID-19, where near-term concern remains high and financial impact uncertain.

This too will pass.

Thank you for your support.

Herbert Cordt
Chairman of the Board of Directors

CEO's Review

Q&A

Q What have been the main highlights in 2019?

A In 2019, we completed the final phases of the integration between RHI and Magnesita, bringing two former competitors together to establish the global market leader in the refractory industry. We have continued to invest in research and development to create products, systems and solutions that will revolutionise production processes at 1200°C and beyond. We have also maintained our focus of developing integrated solutions and services which will provide a tremendous benefit for the efficiency of our customers' processes.

Our ambition is clear: We want to leverage our position as the leading refractory player globally, and we believe that innovation and technology will be the enabler for us to achieve this in a sustainable way.

A significant focus for us in 2019 was sustainability. We made good progress towards our targets set out in 2018, but there is still a lot more to do. During 2019, we accelerated our climate action plan. We increased our CO₂ emissions target from a 10% reduction to a 15% reduction by 2025, extending it to include emissions from the processing of raw materials in our supply chain. Increasing our reductions beyond this point will require new technology and developing these solutions remain a focus for the Company. RHI Magnesita continues to support the UN Global Compact and its 10 principles in support of Human Rights, Labour, Environment and Anti-Corruption.

Q What was the market environment like in 2019?

A Despite challenging market conditions, RHI Magnesita delivered a resilient performance. During the year, the global economy grew at its slowest pace since the 2007/2008 global financial crisis, with rising trade barriers and increasing geopolitical tensions the main contributing factors. This had an inevitable impact on industrial and construction activity, and we saw a decline in demand in many of our end-markets.

Global steel production outside China declined by nearly 1.7% in 2019. This decline in demand was exacerbated by customers reducing volumes through the year and destocking their inventories of our products.

Q What impact did this have on the Group's financial performance?

A RHI Magnesita's revenues were 6.5% lower in 2019 at €2,922 million. This reduction is primarily attributable to lower refractory volumes from the Steel Division, as a result of inventory destocking at customers' sites amid a weak steel production market environment. Gross profit was €717 million, down from €756 million on a constant currency basis in 2018 mostly due to lower raw material prices, weaker end-markets, exiting the Iranian market and lower fixed cost absorption. Gross margin, however, increased by 30bps to 24.5%, supported by the implementation of the Price Management Programme introduced in April 2019, which further contributed to EBITA, and a €15 million benefit from the turnaround of the previously identified operational issues in 3 of the 4 plants. While lower raw material prices in the year reduced the profit contribution from backward integration, this aspect of our business model continued to be financially beneficial as well as strategically important.

Benefiting from the synergies in 2019, and additional efficiency improvements, the Group continued to grow its refractory margin in the year, rising 60bps to 9.0%. This contributed to a broadly stable overall EBITA margin, down 30bps at constant currency to 14.0%. The Group continued its successful integration of the merger throughout 2019, delivering a further €20 million of synergies. This takes the total to €90 million since the merger in 2017, 29% ahead of our original target of €70 million. The additional synergies anticipated in 2020 were to be primarily derived from procurement savings, however given the broader macroeconomic backdrop, lower activity levels and raw materials prices, we no longer expect to see any further synergies in 2020.

Operating free cash flow of €359 million in 2019 (2018: €438 million) was a resilient performance, lower than 2018 primarily due to the weaker economic backdrop and working capital cash consumption. The Group also focused on further extending its debt maturity profile and increasing its liquidity. Our net debt to EBITDA ratio reduced slightly to 1.2x (2018: 1.3x including the impact of IFRS 16 leases).

The Group has significant liquidity of €1.1 billion, comprising cash and undrawn committed facilities.

On a divisional basis, our Steel business, which represents approximately 70% of the Group's revenue, saw revenue decline by 10.4% from the prior year at constant currency as a result of the lower customer demand. This was partly offset by our Industrial Division, which has continued to perform well, with revenue up by 3.6% on a constant currency basis, driven by a particularly strong year in the Cement segment.

Q What is the Company's strategy?

A As outlined in the Capital Markets Day in November 2019, our strategy is built around three key pillars: increasing competitiveness through cost reduction, enhancing our business model and driving market leadership and growth in new markets. Delivering our strategy relies on our greatest asset: our people, who are the true value creators of the company.

Our culture roll-out programme with over 60 culture champions is focused on bringing them even closer together.

The Company has reviewed its capacity and global footprint to ensure production matches regional demand and efficiency is maximised. As a result, management has taken the decision to consolidate some of the Group's plants via its Production Optimisation Plan, which will deliver run rate cost savings of €40 million by 2022.

In sales, we are focused on expanding our solutions business, complemented by digital solutions, as we move towards a value-based pricing model. These initiatives, combined with the Price Management Programme, are expected to generate an additional €40–€60 million of EBITA by 2022.

Q What are your other key strategic initiatives?

A The Company will continue to prioritise its supply chain projects in 2020 and beyond, as part of our dedicated supply chain transformation programme, to achieve better customer service with lower capital demand.



We are an industry-leading business that is focused on meeting the needs of our customers around the world.



Stefan Borgas
Chief Executive Officer,
RHI Magnesita



Strategy section
page 13



CEO's Review — Q&A continued

Q What is your strategy for new growth markets?

A New markets remain a key strategic focus for us, as we look to expand in higher growth countries where we currently have modest market shares such as India, China and Turkey. Our sales teams in China have created a 'local for local' approach and built new relationships in this region, creating strong foundations for the business. The team has now started to develop and deliver high-tech solutions designed for Chinese customers specifically. In the first half of 2019, our China team won a major solutions contract worth €20 million with Guangxi ShengLong, which represents the Group's first such contract in the Chinese high-quality steel market. A second major solutions contract was secured in January 2020.

As part of the strategic expansion in India to increase capacity and improve customer services, we bought Intermetal Engineers Pvt., a metallurgical equipment manufacturer in May 2019 for €1.3 million, and separately acquired a refractory brick plant in September 2019 from Manishri Refractories & Ceramics Pvt. Ltd. for €5.5 million.

In addition to the two transactions in India outlined above, the Group acquired Missouri Refractories Co. Inc. (Morco) in January 2020 for \$10 million, the first production asset for RHI Magnesita in the Mid-south of the United States.

As previously disclosed, the potential acquisition of Kumas Manyezit Sanayi AS, is currently under review by the competition authorities in Turkey and we hope to have an update on the process later in Q2.

More broadly the Group continues to monitor a select number of other acquisition opportunities as part of its long-term growth plans.

Q What has been the impact of raw material price movements on margins during the year?

A During 2019, we have encountered a significant decline in specific raw material prices against the peak seen in 2018, at the height of the raw material supply constraints. The lower price of these raw materials has reduced overall Group profit

contribution from our own raw material plants. However, we continue to derive an important margin contribution from our backward integration, and enjoy the security of high-quality supply.

We have also continued to grow our margin from refractories in the year, benefiting from the integration synergies and further efficiencies.

Q Can you comment on the progress in your Safety programme?

A We believe a safe workplace is a fundamental right of our employees, and it is the Group's responsibility to keep our staff, contractors and customers safe within our operations. While our lost time injury frequency (LTIF) rate reduced further this year, to 0.28, (down from 0.43 in 2018), we can never be complacent. Nothing less than zero accidents is acceptable. We are also focused on protecting our employees in all possible ways we can from the spread of COVID-19.

We are deeply saddened by the loss of life during 2019 of one contractor and one employee on our production sites, and send our sincere condolences to their families, friends and colleagues. One immediate consequence is a greater focus on contractor safety, and contractors who work at our sites will be included in our LTIF data going forwards. To implement this, we are defining safety requirements by type of service provided and assigning accountability to site managers. We will also place the same focus on the total recordable injury frequency (TRIF) as we do on LTIF.

Q How is innovation playing a role at RHI Magnesita?

A Innovative technologies including digitalisation continue to be at the heart of our business and enable us to better meet customer demands. Throughout 2019, particular areas of focus have been: recycling of refractory products, CO₂ and energy reduction, coating technologies, new production techniques and automation and digitalisation. Investment in R&D totalled €64 million in 2019, representing 2.2% of Group revenue.

It is through our innovation expertise that we will continue to strengthen the

products and solutions of our business. We create and customise refractory products that suit the unique needs of our customers, and we offer over 100 value adding services.

Through these data and digitalisation products customers will gain greater insight into the wear rates of our refractory products so that they can operate more efficiently, cut costs and energy wastage.

Further details of our new developments can be found in the innovation section on pages 30 to 33.

Q What is the outlook for 2020?

A In 2019, RHI Magnesita has further demonstrated strong progress in executing our strategy, resolving previously identified operational issues and implementing the initiatives that will underpin our long-term growth. We have delivered a resilient financial performance in the year, despite difficult market conditions and lower raw material prices, particularly in our Steel Division in the second half.

Looking forwards, we will benefit from the steps we have taken to strengthen the business, particularly from the Production Optimisation Plan. However, the difficult market environment in the second half of 2019 has continued in the first quarter of 2020. Whilst COVID-19 has not had a material financial impact on the business to date, we have seen a recent slowdown in customer activity, particularly in our Steel Division, and the future demand environment is very uncertain. We have undertaken extensive scenario testing, factoring in a range of potential outcomes, which indicate that the Company has sufficient liquidity to withstand an extended period of uncertainty.

Longer term we see clear opportunities to further progress our refractory margin, whilst also continuing to benefit financially and strategically from our backward integration. The business benefits from a strong financial position, with low leverage and significant liquidity, and is well positioned to take advantage of growth opportunities when markets improve.

Strategic framework

The merger of RHI and Magnesita created the global refractories leader. The Group has a resilient business model, clear strategy and a strong balance sheet. The strategy is built on the three pillars of competitiveness, business model and markets, all supported by our people.

Strategic priorities



Competitiveness

Low-cost producer of technically advanced refractory materials with safe production network.

Deliver cost savings through restructuring.

Improve operational cash flow.



Business Model

The leading service and solution provider in the refractory industry with an extensive portfolio based on innovative technologies and digitalisation.

Maximise value from sales strategies.

Increase number of solutions contracts.



Markets

Worldwide presence with strong local organisations and solid market positions in all major markets.

Measured consolidation opportunities.



People

Hire, retain and motivate talent and nurture a meritocratic, performance-driven, customer-focused and friendly culture.

Strategic progress in action



Competitiveness

Execute cost reduction

The Company has reviewed its capacity and global footprint to ensure production matches regional demand and efficiency is maximised.



RHI Magnesita has taken the decision to consolidate plants in our Production Optimisation Plan and we have identified run rate cost savings of €40 million by 2022.



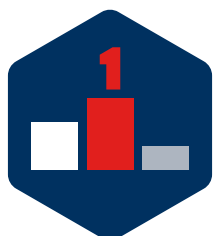
Stefan Borgas,
Chief Executive Officer

Strategic progress in action

Competitiveness

Strategic priority

Low-cost producer of technically advanced refractory materials with safe production network.



Operations globally

39 countries

Backward integration basic raw materials

70%

Progress in 2019

In 2019, the Company further increased its dolomite raw material supply, to support the backward integrated model and provide high quality, low-cost raw material. Firstly, the mine in Chizhou (China) was re-opened, including the construction of a state-of-the-art rotary kiln. Secondly, the company approved €40 million for the construction of a new dolomite Resource Centre in Europe. This will allow Dolomite for the entire European market to be mined and processed at the Hochfilzen site in Tyrol, and transported sustainably by rail, to sister plants in France.

Additionally, the Supply Chain Management transformation was a key focus in 2019, and the Group focused on four specific workstreams: Tactical Network Optimisation, Supply Chain Performance Management, Integrated Business Management Planning and Data Quality.

Outlook for 2020

Execution of cost reductions will be key for 2020. Specifically, the Company will achieve this through plant optimisation in Europe and the Americas, focusing on local for local production. This will balance regional capacity with regional demand.

Secondly, it will focus on optimising its raw material strategy through production, purchasing and recycling.

Automation and digitalisation of production and of the supply chain will further lower costs and bring additional opportunities.

 Read more about the Production Optimisation Plan in the Capital Markets Day presentation, available on rhimaginesita.com

Safety – a priority

The Company prioritises the safety of its employees at all times.

It is committed to reducing the impact of its operations, and have an active role in shaping the industry's standards.

 Read more on **pages 69 and 70**



Production Optimisation Programme ("POP")

In Europe, the Company will address overcapacity issues and improve efficiency by ramping down two plants in 2020 with a further one scheduled for closure in 2021.

In the Americas, the Company will optimise its production network through specialisation of regional hubs in the USA, Mexico and Brazil, as well as a consolidation of our production capabilities of the Burlington plant in Canada, into York in Pennsylvania.

Raw Material Strategy

The Company will continue to build on its backward integration model, which is key to providing low-cost, high quality raw materials.

Given recent raw material price volatility, the Group has been re-evaluating regional supply options.

As a result, the Fused Magnesia ("FM") production in Norway and Brazil have been mothballed in 2019, whilst the Company entered into a long-term purchasing agreement with a Chinese supplier to more appropriately meet demand, and maintain margin.

Sustainability

Innovative thinking is required in the refractory industry in order for it to become more sustainable. RHI Magnesita will continue to lead the way on sustainability.

It has started key initiatives and research programmes to significantly reduce its carbon footprint as well as partnering with customers to reduce their emissions. Driven by reduced primary raw material demand, energy savings and efficiency improvements and deliver cost savings as well as improve sustainability.



Read more on
pages 62 to 72

Production Optimisation Plan
2022 run-rate savings

€40m



Strategic progress in action continued



Business
model

Expanding the business model

In the Sales department, we focus on expanding our solutions business, including digitalisation and recycling, as we move towards a value-based pricing model, and further growth in India and China.



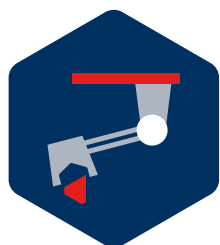
We want to make recycling an integral part of the solution to our customers. Doing so allows complete optimisation of the supply chain, customer operations and the reverse supply chain.



Paul Glaubitz,
General Manager Recycling

Strategic progress in action continued

Business model



Number of solutions contracts worldwide

128

Number of patents

1,598

Strategic priority

Leading service & solution provider in the refractory industry with an extensive portfolio based on **innovative technologies and digitalisation**.

Progress in 2019

The Company launched several sales strategies in 2019, which will focus on expanding the solutions business as we move towards a value-based pricing model. The solutions offering comprises technical services, logistical services, digital services and solution services to support the product portfolio.

The Company invested in its recycling business throughout 2019, and made good progress towards its target of achieving 10% recycling target by 2025.

 Read more about solutions on **page 34**

Outlook for 2020

In 2020 the Company will continue to establish itself as the leading performance partner in the refractory industry. The Company will continue to expand the business model to increase value in the core markets and maintain market share. From product delivery, to installation services, to recycling and digital services, the Company's objective is to deliver customer value through reducing costs and driving efficiencies, in a sustainable way.

The Company will continue to build an autonomous and profitable recycling business in 2020, ahead of its 10% recycling target by 2025.

 Read more about recycling on **pages 62 and 66**

Automated Process Optimisation

APO — Automated Process Optimisation uses AI methods to better understand the correlation between production parameters & refractory performance.

 Read more on **page 31**



Solutions

The Company will continue the expansion of its business model to increase value through its services and solutions portfolio in core markets and in selected growth markets.



Read more about the solutions model on pages 34 and 35

Digital services

The Company has three key digital products in the 2020 pipeline:

APO — Automated Process Optimisation uses AI methods to better understand the correlation between production parameters & refractory performance.

QCK — Quick Check uses images to provide high-accuracy short-time 3D scan measurement.

BST — Broadband Spectral Thermometer uses greybody radiation curve to accurately & online determine the temperature of any body in sight.

Recycling

Recycling is an essential part of the Company CO₂ reduction strategy, and will be the largest contributor in reducing the Company's CO₂ footprint. The Company is targeting a 10% recycling rate by 2025, which will mitigate approximately 300,000 tonnes of CO₂ emissions.

In partnership with Outokumpu, an RHI Magnesita customer, and the R&D team, the Company developed a way to use spent refractories that are unfit for the recycling process as slag conditioner. This further improves the sustainability of the customer's processes, and drives cost savings for both RHI Magnesita and its customer.



Read more on page 41

Amount invested into technology

€64m



Strategic progress in action continued



Markets

Growth in new markets

New markets remain a key strategic focus for the Company, to expand in higher growth countries where we currently have modest market shares such as India, China and Turkey.



In the first half of 2019, our China team won a major solutions contract worth €20 million with Guangxi ShengLong, which represents the Group's first such contract in the Chinese high-quality steel market. A second major solutions contract was secured in January 2020.

Strategic progress in action continued

Markets



70+

Sales offices worldwide

15%

Global market share (30% ex-China)

Strategic priority

Worldwide presence with strong local organisations and solid market positions in all major markets.

Progress in 2019

In order for the Company to continue to establish itself as the global leader in refractories, it developed a differentiated core strategy for each major region to maximise value creation and market share growth.

As an example, the Sales team in China have created a "local for local" culture and built relationships with a new mindset in this region, creating strong foundations for the business. The teams have also developed a localised product portfolio, as well as improved local technical support.

The Company completed two small M&A transactions in India. In January 2020, the Company also announced the acquisition of Missouri Refractories Co Inc, the first production asset for RHI Magnesita in the Mid-south of the United States, a region that is rapidly growing in importance. M&A is also an important part of the strategic expansion to increase targeted capacity and improve customer services.

Outlook for 2020

In 2020, the Company will continue to focus on defending its leadership position in core markets, and further establishing market share in growth markets. The strategy for organic growth in India, China and CIS will be supported by selective M&A.

Across these diverse markets, the Company will continue to derive benefit from its global footprint, as well as the proximity between supply and production, and the location of the customer base.

The Production Optimisation Plan will be implemented in 2020, where the production footprint will be consolidated to ensure production matches regional demand.

India expansion

In 2019 the Company acquired two local Indian companies to expand our local footprint in addition to heavily investing in our existing plants and local organisation.

 Read more on **page 45**



Core markets

Focus on preserving market share and growing value through our extensive services and product portfolio in Europe and the Americas, including digitalisation. In 2019, the Company announced the Production Optimisation Plan, which will leverage the 'local for local' production footprint.

Growth markets

In China, the Company will focus on further developing the sales force, strengthening the localised product portfolio, and improve local technical support.

In India, the Company will focus on additional MGU production, sales expansion in the Industrial Division, and increasing the production of non-basic products for Cement/Lime. This is supported by local Research and Development to further localise the product portfolio and decrease time-to-market.

M&A

To accelerate growth in-line with the Company strategy, the Company takes a pragmatic approach to growing the business in its growth markets through Mergers and Acquisitions. This includes actively looking for opportunities to increase backward integration, complement the geographic refractory production footprint, as well as strengthening technological leadership.

First solutions contract
in China

€20m



Strategic progress in action continued



People

Our greatest asset, our people

In 2019, RHI Magnesita developed a new method to identify and rotate top talent in the company, within the People Cycle.



The process for succession planning is very well structured and RHI Magnesita is really increasing efforts to promote women in leadership roles.



Sabrina Salmen, Head of Integrated Business Planning

Strategic progress in action continued

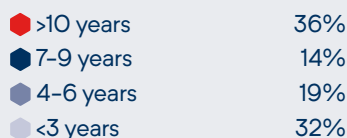
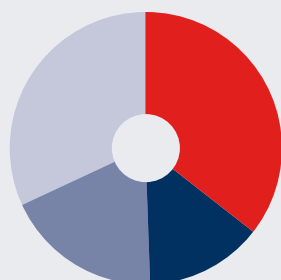
People



Number of employees

13,650+

Employees by tenure



Strategic priority

Hire, retain and motivate talent and nurture a meritocratic, performance-driven, customer focused and friendly culture.

Progress in 2019

In 2019 further developed, disseminated and promoted the company culture, with dedicated effort from over 60 local culture champions.

A diversity framework was established, including the Diversity Steering Committee to meet the Company diversity targets by 2025.


The roll out of a new leadership programme (FitToLead), a new bonus scheme, new mobility framework, new salary benchmarks and flexible work schemes were finalised.

Lastly, several initiatives have been established to enhance career development, including the People Cycle, and individual development plans which include rotation programmes.

Outlook for 2020

In 2020 the Company will focus on driving a better company culture for the successful delivery of the strategy, including prioritising diversity towards meeting the internal target of 33% females in leadership positions by 2025.

The Company will continue to develop its workforce with new skills in the field of services and digitalisation, to better equip the company with its expanding business model. It will also re-position its employee brand in 2020, in a continuation of the progress made in 2019, which will support the employee value proposition, as well as hiring and retaining talent.

 Read more about our diversity targets on **page 71**



Workforce profile

At 31 December 2019, RHI Magnesita had a total workforce of 13,650 employees. The main centres of employment were South America, with approximately 5,400 employees, Western Europe 4,200, Asia Pacific 2,500, North America 1,100, Near and Middle East 240, Africa 100 and Eastern Europe 80. The people of RHI Magnesita are from many countries, communities and cultures.

Diversity & Inclusion

Diversity and Inclusion (D&I) is critical to the future success of the business. In today's globalised business environment, diverse teams are proven to be more productive and better equipped to succeed. Diversity has been listed as one of the key issues for stakeholders and the business. Diversity is now embedded in the Company's culture and strategy. Our commitment is to meet the Hampton-Alexander target of 33% female representation of leadership roles by 2025.

Culture

Our Cultural Themes are an important compass on how employees interact and make decisions at RHI Magnesita; act customer focused and innovatively, have open decision making in a respectful environment, operate cross-functionally, collaboratively and pragmatically across the organisation, and be performance driven and accountable.

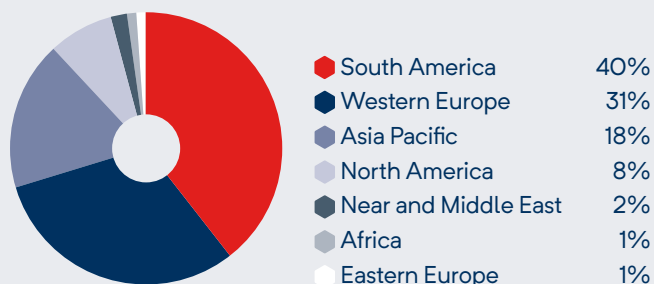
The Company has achieved great results during the first two years as one organisation, however there is still progress to be made. To ensure we continue to make progress, the Company established a global team with over 60 culture champions dedicated to embedding culture by hosting workshops and townhalls.

Leadership

FitToLead is RHI Magnesita's new leadership framework, consisting of a network of leaders, and defined by specific Leadership Capabilities. The Leadership Capabilities were established based on our strategy, culture, external benchmarking and internal workshops. FitToLead offers different tailored learning opportunities and empowers 150 leaders to be in the driver's seat of their own development. It focuses on the executive level, but there is a lot more to come.

 Read more on
page 71

Employees by region



Participants of global
development programmes

1,250



With FitToLead we make our leaders fit for the future and enable them to bring our business to excellence.



Simone Oremovic
Executive VP People and Culture,
and Communications



Innovation

RHI Magnesita's aim is to be the leading solution provider in the refractory industry based on innovative technologies and digitalisation, achieved through its raw material advantage, innovation and solutions offerings.

New product revenue as a %¹ of revenue

16%

RHI Magnesita's aim is to be the leading solution provider in the refractory industry based on innovative technologies and digitalisation, achieved through its raw material advantage, applied R&D capabilities, innovation and solution offers.

This year, the Company has demonstrated through its 4.0 sales initiatives that it is able to offer much more than the traditional refractory products. As the leader of the industry, the Company aims to be at the forefront of developing advanced refractory technologies, digital products and integrated solutions to meet evolving customer needs.

The Group expenditure on Technology in 2019 was €64 million, or 2.2% of revenue.

R&D capabilities and developments

The progress made in innovation during 2019 was thanks to the industry-leading R&D team, made up of 480 technical experts across R&D, technical marketing and product management, of which 110 people hold either a Masters qualification or PhDs. RHI Magnesita's R&D hubs are located in Leoben (Austria) and Contagem (Brazil), and these are supported by three R&D centres based in York (USA), Dalian (China) and Bhiwadi/Visakhapatnam (India).

The total R&D spend in 2019 was €35 million, before subsidies and including opex and capex. This is in line with the Company ambitions, as outlined in the 2018 Annual Report, to commit 1.2% of Group Revenues to R&D and innovative technologies on an annual basis. Furthermore, the Group achieved 16% of new product revenue as a % of total revenue in 2019.

Applied R&D

RHI Magnesita continues to develop customer-specific solutions, ensuring leadership position in our markets. The efficiency of the Applied R&D activities is being increased, focusing on delivering high return, fast payback projects, with a short response time. This allows us to maintain a high level of support to our customers, while redirecting some substantial resources to innovation topics.

4.0 sales initiatives

2019 marked an important year for RHI Magnesita and its progress in innovation. Firstly, the Company established a dedicated "4.0" department. This emphasises the importance of digitalisation and automation, as these factors become ever more relevant in how the Company does day-to-day business and in improving efficiency, as well as adding value, for its customers.

Ongoing advancements in the 4.0 department aim to meet the needs of RHI Magnesita customers, through leveraging data, connectivity, artificial intelligence and predictive maintenance. Through constant evolution of our product offering, the Company's objectives remains the same: to implement new business and service models that fulfil the demands of the Company's customers.

¹ New product revenue includes new brands created in the past five years.

Among the many projects currently being developed, three projects have been selected to demonstrate RHI Magnesita's 4.0 sales initiatives for the next couple of years. Dedicated project teams (consisting of project managers, technical experts, programmers and data scientists) have been established, and starting in 2020, will help to bring these three projects successfully to the market.

Automated Process Optimisation — APO

APO is a unique, patented solution that allows for a greater understanding of the correlation between production parameters, refractory application and maintenance by analysing the associated data in a cloud-based environment using artificial intelligence methods.

APO enables the plant manager to monitor process conditions and their effects, check the status of the refractory lining, and manage maintenance cycles more effectively. APO uses artificial intelligence to create a digital twin to make the refractory lifetime predictable. The digitalised view created by APO aims to increase safety, optimise production and achieve fewer production losses.

APO works by integrating data from laser measurement, the steel making process and sends this data to the cloud. A refractory wear model is calculated and provided in real time to the user via the APO app. This provides wear lining prognosis and scenario analysis, and makes planning, controlling and synchronising maintenance cycles easier.

APO has already been successfully applied to analyse and optimise Basic Oxygen Furnace, Electric Arc Furnace, Ladle and RH Degasser refractory applications, at several customers' sites. Currently, usage of APO for applications outside of the steel industry is also being actively pursued.

Quick Check — QCK

QCK is an innovative measurement technology that, by applying stereoscopic methods to images recorded by latest technology cameras, produces high-accuracy 3D scans of metallurgical vessels. It generates refractory lining wear measurements that are both significantly faster (up to 10 times) and have higher resolution (up to five times) than those produced by state-of-the-art laser scanning devices. Improved quality of monitoring increases the availability of vessels by reducing the risk of unexpected downtime or break-outs, thus optimising plant logistics and efficiency. In addition, QCK is easy to install and does not require high investments for customers. The current focus of QCK is the application to steel ladles, but other applications are also being actively investigated.

Broadband Scanning Thermometer — BST

BST is an innovative method for continuous temperature measurement. It uses the grey body radiation curve (visible light emission spectrum) to accurately determine online the temperature of any object in sight. Application of BST for measuring liquid metal melts (in most cases, this is currently done offline by using disposable probes) can have several immediate benefits for the customer:

- Online temperature measurement of the melt will allow for better controlling of the temperature and, in turn, optimise the customer process. This helps to reduce overall energy consumption as overheating the melt is avoided, and less external heating is needed. In turn, this reduces consumption of graphite electrodes used for heating and, consequently, CO₂ emissions.
- Usage of disposable temperature probes can be completely avoided or at least significantly reduced, leading to immediate cost savings for the customer.
- Productivity is increased through higher equipment availability (no time is needed for performing discrete temperature measurements).
- Reduced melt temperature levels have beneficial effect on refractory consumption.



Innovation continued

These examples of our R&D developments demonstrate our continual efforts to innovate and progress, in order to meet environmental and social pressures and to increase efficiency, both in the internal production processes of RHI Magnesita, and to meet the changing needs of customers.

Sustainability developments

In 2019, key themes were established within the innovation department to address sustainability issues and create increased efficiency for our customers. It is more critical than ever to support customers through low carbon solutions and more efficient processes.

Recycling

The recycling of used refractory products continues to be a key strategic initiative for the Group based on the many benefits it carries, through significant reductions in energy consumption as well as increased security of supply. RHI Magnesita is targeting 10% recycled materials by 2025, which equates to c. 300,000 tonnes of CO₂ emissions saved and c. 150,000 tonnes of material being saved from going to landfill.

During 2019, the Company focused on the business development stage of the recycling strategy, and focused on finalising contracts, trading, outsourcing and construction. The Company also focused on increasing the proportion of secondary raw material in refractory product through new technology and processes.

Looking ahead, throughout 2020 and 2021, the Company will establish its own distinct recycling operations, including new facilities, defined recycling containing products, and additional R&D projects. Some longer-term technologies are being developed to ensure higher levels of recycling usage, such as automatic sorting, cleaning and stabilisation processes, following the technology roadmap that has been established.

CO₂ reduction

The Company is committed to reaching a 15% reduction in CO₂ by 2025. CO₂ is an inevitable by-product in the chemistry of the refractory brick production process. It is generated in the production of dead burned magnesia and dead burned doloma, as well as the fuels used in the internal processes. It is therefore our priority, and our responsibility, to reduce these emissions where possible, and improve the wider carbon footprint.

RHI Magnesita also continues to explore new technologies in CO₂ capture, CO₂ usage and value chain, and clean production processes.

Coating technologies

The Company aims to constantly improve the performance of our refractory solutions. One technology which will help achieve this is enhanced coating whereby refractory properties are modified through depositing layers on either grains or products. This surface property functionalisation leads to the development of new refractory formulations with improved properties such as: corrosion resistance, flexibility and thermal conductivity.

Pioneering production techniques

RHI Magnesita, through using pioneering production techniques, is targeting a 5% reduction of energy per tonne of product in plant by 2025.

The Company will develop new processes for refractory and raw material production with significant cost reduction, as well as energy savings. This should be achieved through processes currently in development such as microwave drying used for much faster drying times, and the production of refractories that no longer require firing or tempering.

The Company has researched new production techniques for refractory products using nanomaterials throughout 2019, specifically to improve both mechanical and thermal properties of the finished product. This research is additionally being rolled out to non-refractory type of applications.

Intellectual property and patents

Given the industry-leading R&D capabilities of the Group, we place great importance on protecting its intellectual property.

During 2019, 11 priority patent applications were filed. The Group continuously examines the patentability of product developments, new raw materials, systems and technologies in order to provide protection for the Group's assets.

By the end of 2019, the Group's patent portfolio accounted for 139 patent families, comprising of 1598 patents and patent applications.

A key achievement in the Cement/Lime segment during 2019 was the adoption of Spinosphere technology, in a series of refractory bricks. The patent application was filed last year in order to protect this new development, unique to RHI Magnesita.

In 2019, a number of third parties formally challenged the validity of recently granted patents, and the Group has been largely successful in actively defending the portfolio.

Our partnerships

The Group continues to collaborate with external partners such as accelerators, start-ups, open innovation platforms, companies and institutions.

In 2019, RHI Magnesita had active programmes with the following leading institutions:

- University of Leoben (Austria)
- Johannes Kepler University (Austria)
- University of Graz (Austria)
- Vienna University of Technology (Austria)
- Federal University of São Carlos (Brazil)
- Slovak Academy of Sciences (Slovakia)
- Seoul National University (South Korea)
- Fraunhofer-Gesellschaft (Germany)

RHI Magnesita is involved in a number of partnerships, as part of the Athor programme funded by the EU commission:

Academics:

- University of Limoges (France)
- AGH University of Science & Technology (Poland)
- University of Aachen (Germany)
- Montanuniversität Leoben (Austria)
- University of Orléans (France)
- University of Minho (Portugal)
- University of Coimbra (Portugal)

Industrial partners:

- Altéo Alumina — Gardanne (France)
- Imerys Refractory Minerals — Villach (Austria)
- Pyrotek Scandinavia AB — Ed (Sweden)
- Saint-Gobain — Cavaillon (France)
- Tata Steel — IJmuiden (Netherlands)
- Safran (France)

Additionally, RHI Magnesita also worked closely with the following technology leaders in the Steel industry:

- Voestalpine Stahl Donawitz
- Voestalpine Stahl Linz
- Bohler Edelstahl
- Primetals Technologies
- Montanwerke Brixlegg
- Fronius
- OMV at competence centres promoted by the Austrian Research Promotion agency.

Technical Advisory Committee

The TAC was established in 2018, making 2019 the first full year in operation as a new committee. The TAC meets bi-annually with senior management present and includes Board representation with the attendance of Andrew Hosty, Non-Executive Director in a supervisory capacity. The committee comprises senior external professionals, R&D and Technical Marketing leaders, and consultants as required.

The Committee addressed the following key themes during 2019:

- identifying new technologies, and advising on existing technologies;
- supporting and challenging the R&D team; and
- expanding the Company's technology network into external partnerships.

The main topics evaluated by the Committee throughout 2019:

- automation and digitisation;
- functionalisation of refractory surfaces;
- fast drying and low temperature sintering technologies;
- CO₂ emission reduction, capture and utilisation; and
- innovation fostering.

The advisers approved the relevance of the strategic R&D themes and provided guidance for new contacts potential collaboration in the scope of the priority projects.

Fundamental research — key 2019 focus areas

In the recent years modelling and simulation has become an important discipline in the field of refractory materials. State-of-the-art methodologies are being applied to develop, improve and optimise refractory products. Constant investment in fundamental research in that field offers new opportunities for future developments. One key aspect in 2019 was to link measurements and material properties with the finite element method in order to improve the predictability of potential failure events of our products in use and derive measures to avoid it. This is key for a reliable digital product development. Focusing on a customer-centric approach more than 170 simulation projects were carried out for internal and external customers. A new full-scale water model facility for the continuous casting process was developed and put in operation this year. This highly automated model will support the flow control growth strategy, especially in Asia.

Product optimisation and production method development

RHI Magnesita is continuously developing new products and production routes to meet customer demand through value adding and sustainable technologies. The department achieves this through a combination of material development, design development in the simulation department and production process development. The department also examines raw material alternatives on an ongoing basis, in order to secure raw material availability and to optimise the customer's total cost of ownership, one of the fundamental activities of R&D.

Innovative raw materials and production processes are key for developing new products. Pilot installations are available in our R&D hubs in Leoben and Contagem which allows developing new raw materials solutions. New sintered or fused raw materials are tested in the Company's facilities before being scaled up to production sites. Among different raw material projects executed in 2019, the development of a new Dead Burned Doloma based of RHI Magnesita proprietary raw stones was one of the main highlights in supporting the Company in establishing a further step in the direction of being more backwardly integrated in the production of basic refractories.

In 2019, RHI Magnesita continued its work in developing new fused non-oxidic raw materials as a substitute to classic oxidic raw materials, in order to improve thermomechanical properties of its products. The Company believes there is a promising future for this new class of raw materials.

In 2019, the Company also prioritised developing new recycling containing solutions to preserve raw material resource, reduce CO₂ footprint and energy consumption as well as lowering customer refractory costs.

The development of coated refractory grains via the so-called Spinosphere technology was transferred from the Company's laboratories to production sites and finally to some customers. The Company produced magnesia spinel bricks which exhibit enhanced mechanical properties and are being used in rotary kilns of various cement producers.

Solutions portfolio

RHI Magnesita offers a full suite of engineering services and solutions to complement its extensive range of refractory products.

RHI Magnesita is focused on creating innovative solutions to provide value for its customers through increased productivity, capex savings, improved working capital, improved Health and Safety, supply flexibility, environmental impact reduction, direct cost reduction and through improving product quality. The Company can achieve this for its clients through offering technical, logistical, digital and solution services, to complement its product range.

The solutions model is designed to provide dual benefit for both the customer and RHI Magnesita. Through procuring more services from the portfolio, the combined packages create value through driving cost savings and efficiencies for our customers, and limiting the use of natural resources.

The range of products and services within the sales portfolio is extensive, and can be a bespoke package to suit a variety of customer demands:



Products

- RHI Magnesita offers a wide range of refractory products, such as standard refractories, functional refractories, minerals and low emission refractories. It also offers equipment machinery, non-refractory consumables and mechanics such as slide gate mechanisms



Technical services

- Our technical services team offers a full range of engineering expertise
- These include installation, on-site training, engineering, supervision, maintenance, laboratory analysis and simulation
- The team also offers consulting services
- The technical services team helps the customer increase their productivity on site, as well contributing to a safer working environment and a better quality end product



Digital services

- The sales team partners with the R&D department to provide innovative solutions that support customer processes through digital reporting tools and visualisation. A key development in digitalisation this year was the APO application. Read more on page 31.
- Application of RHI Magnesita digital services contributes to better productivity through automation



Logistics services

- Our logistics hub is designed to provide ease of transport and physical inventory management through logistics consulting, supply chain management, transport and packaging and warehouse management
- This contributes to flexibility of supply for customers, and improves their working capital efficiency



Solution services

- RHI Magnesita will develop a contract with the customer which is based on product output, rather than refractory consumption, incentivising less consumption across both parties, providing cost savings and also higher productivity for the customer

Products can either be combined in bespoke packages or offered as a full-line service solution. In a full-line service solution contract, RHI Magnesita supplies all of the main applications of the customer site (EAF, Tundish and ladle), in addition to a range of services.

The solutions model

Our solutions-based model offers the following benefits to our clients

- 1 Reducing refractory specific costs (per tonne of steel)
- 2 Increasing asset productivity and final steel output
- 3 Reducing consumption of materials such as fuel, energy, electrodes, aluminium & ferroalloys
- 4 Reducing capex by reducing the need to invest in new equipment & inventory
- 5 Improving steel quality and conversion efficiency

Value
creation

And RHI Magnesita receives the following benefits in return

- 1 Opportunity to increase market share in other applications, improving customer relationships
- 2 Opportunity to increase profitability by improving steel production performance. This is achieved through higher quality refractory products and on-site technical specialists to provide consultation.
- 3 Improved visibility at customer sites, allowing for direct insight into market demand.

Controlled costs

The untapped value centre within the steel plant

RHI Magnesita creates value for customers not only by reducing refractory consumption, but also through indirect operational savings. These cost savings can be greater than the overall refractory expense itself, which accounts for between 2–3% of steel input, and contributes towards 20% of the plant controlled costs.

Plant controlled costs are made up of the consumables, labour and overhead involved in steel production. Of the plant-controlled costs, a up to 20% is made up of the variable costs driven by the two aspects of steelmaking — conversion efficiencies and refractory applications.



Service solutions contracts enable RHI Magnesita to form a partnership with the steel plant to minimise these costs as much as possible, through the bespoke range of services.

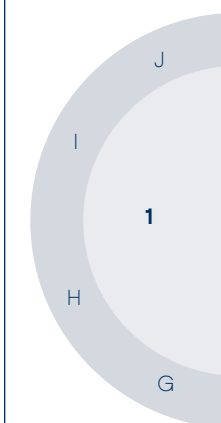
Conversion efficiency savings are achieved through continually monitoring and modifying slag processes and refractory applications. The chemical behaviour and reactions between steel, slag and refractory materials have a profound influence on the quality and profitability of each tonne of finished steel.

Refractory applications savings are achieved through optimising the service life of high-heat operating equipment, maximising furnace uptime and generating the lowest possible cost per tonne of steel produced.

The service solutions model can help reduce refractory consumption, improve conversion efficiency, reduce downtime and reduce consumption of other consumables. This results in increased asset availability, refractory inventory reduction and improved use of working capital.

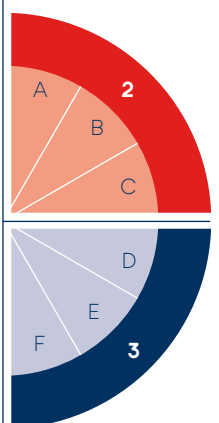
Client cost structure

Market driven
80% of costs



1 Raw material
G Scrap
H Alloys
I Energy
J Gasses

Plant controlled
20% of costs



2 Conversion efficiency
10% potential savings
A Slag engineering
B Energy consumption
C Yield improvement

3 Refractory applications
10% potential savings
D Equipment utilisation
E Consumables
F Steel quality

Market overview

Demand for refractory solutions is underpinned by the mega trends that support long-term growth across our industry. As our products and solutions help provide a safe, efficient and digitalised production environment to our customers, we become essential in helping shape the world.



Steel production



Steel production is one of the main market drivers for the Group, as production volumes are correlated to the demand for refractory products and are therefore closely linked to the performance of the Group's Steel Division. In 2019, total crude steel production for the year was up 3.4% (2018: +4.6%). Excluding China, however, steel demand slowed, and production has declined 1.7% year-on-year (2018: +2.0%). The contraction in the manufacturing sector, particularly in the auto industry fuelled by the uncertainty in trade and geopolitical matters have weighed on investment and slowed GDP in developed economies in 2019, which as a driver of steel demand, also directly impacts our Steel Division.

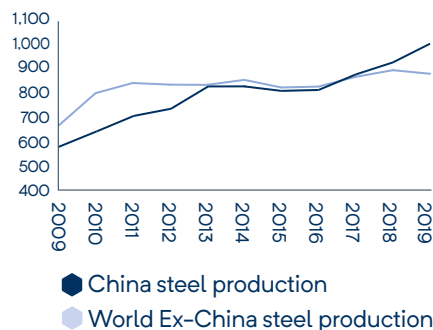
Some of the key contributors of 2019's performance were:

- Poor manufacturing performance, ongoing environmental pressures from governments and lacklustre demand in the automotive industry remain key catalysts for weak performance in Europe, particularly in Germany, Italy, France, Spain and Poland. Stagnant steel demand in the Eurozone region amid deteriorating export and investment environment also contributed to the 4.9% contraction of the 28 main countries in Europe (EU-28)¹.
- In North America, new investments directed towards capacity expansion were responsible for higher production levels in 2019, which were up 1.5%, particularly as prices and margins have improved for US metals companies in 2019.
- In South America, steel production declined 8.4% in the region, led by a reduction of 9% in Brazil and 10% in Argentina, as steelmakers adapt their footprint for the more challenging market backdrop in order to meet steel demand.
- In China, despite the pressures from trade negotiations with the United States and sluggish manufacturing performance indicating signs of a slowing economy, steel production volumes increased and helped offset the weak performance in the rest of the world. This was mainly due to the increased demand from the property construction sector, and a newly implemented capacity

replacement campaign introduced by the Chinese government, which aims to replace less efficient, old, steelmaking facilities that were previously idled or closed with new steelmaking capacity that is less environmentally harmful.

Steel production

Mt

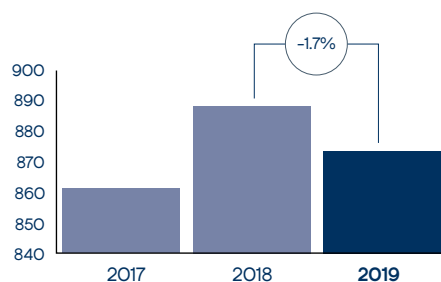


■ China steel production

■ World Ex-China steel production

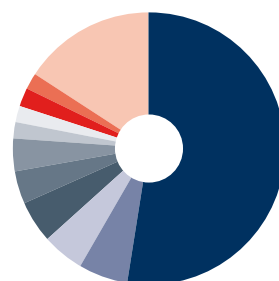
World steel production ex-China

Mt



Key geographical drivers of refractory demand in the Steel end market

The 10 largest steel producing countries



	2019 (Mt) ¹	Change (%) ²
China	996.3	+8.3
India	111.2	+1.8
Japan	99.3	-4.8
United States	87.9	+1.5
Russia	71.6	-0.7
South Korea	71.4	-1.4
Germany	39.7	-6.5
Turkey	33.7	-9.6
Brazil	32.2	-9.0
Iran	31.9	+30.1

Source: World Steel Association, Deloitte, S&P Global

¹ Steel production output in metric tonnes.

² Compared against 2018 steel production figures.

Market overview continued

Raw material pricing



One of the key raw materials used for refractory products are magnesite and dolomite, minerals that the Company mines in its underground and surface quarries and mines. These minerals and their thermochemical properties enhance refractory performance and are critical for the safety and productivity of our customer's applications.

Currently, the Group has a 70% level of backward integration in basic raw materials. By internally sourcing the majority of the Company's raw material needs, RHI Magnesita is not only able to deliver high-quality raw materials, provide certainty of supply to its customers and produce refractories at a lower cost, but also, mitigate the risk of fluctuating raw material prices which can impact Company margins.

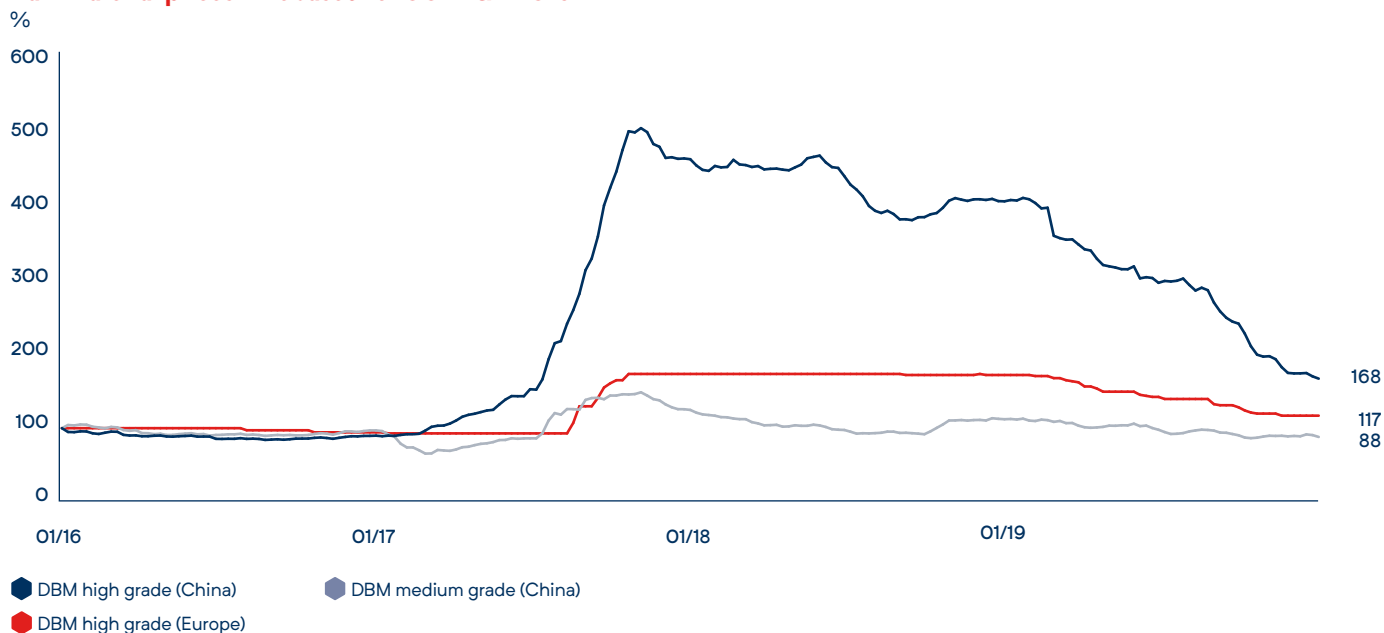
Whilst most of the refractory products are priced according to the complexity of their composition and often sold as a solution offering package, some refractory products are impacted by the price of certain raw materials.

Looking at the Group's core raw material prices used in refractory production, prices in 2019 dropped significantly relative to the last two years as a result of a surge in supply as customer destocking was intensified in 2019, and to a larger extent, general uncertainty in the steel end markets. The Chinese environmental sanctions imposed in 2017, led to a short-term shortage of raw material which in turn, drove raw material prices to unprecedented levels. In 2019, as Chinese producers' supply of magnesite increased during the year, prices were taken back to levels seen before 2017. The weak demand from end markets, as a result of an uncertain Steel and economic backdrop may lead to a slower recovery of raw material prices.

70%

Backward integrated
in basic raw materials

Raw material prices — rebased to 100 in Q4 2015¹



1 Source: Asian Metal

Construction & Infrastructure



The Industrial Division, which accounts for approximately 30% of the Group's revenue, is mostly driven by global GDP, as most of the Division's performance is linked to longer-term investment projects.

Refractory solutions in this Division service the cement, lime, non-ferrous metals and other process industries, which comprise glass, EEC and minerals segments.

Whilst refractory products for cement applications tend to be treated as both consumables and investments from our customers' perspective, the demand for refractory solutions for the other segments of the Division (Non-ferrous metals and other process industries) are more project based, and therefore closely linked to global growth.

Demand for cement and glass is closely linked to the construction industry and construction markets are estimated to account for c.50% of overall refractory demand.

Global GDP in 2019 saw 2.9% growth, with a projection of 2.4%¹ in 2020.

- Cement markets have benefited from the steady long-term growth in line with GDP and construction activity, despite the growing environmental pressures linked to CO₂ emitting industries.

- In 2019, global clinker demand grew 1% ex-China supported by 4% growth in India and broadly stable performance in other markets. In contrast, China, the world's largest cement and clinker producer, is reducing capacity due to environmental pressures and accumulated overcapacity leading to a global clinker market contraction of c.3-4%.
- The glass industry in 2019 has benefited from the positive momentum in the sector, driven by healthy demand growth across all regions, supported by favourable environmental trends.

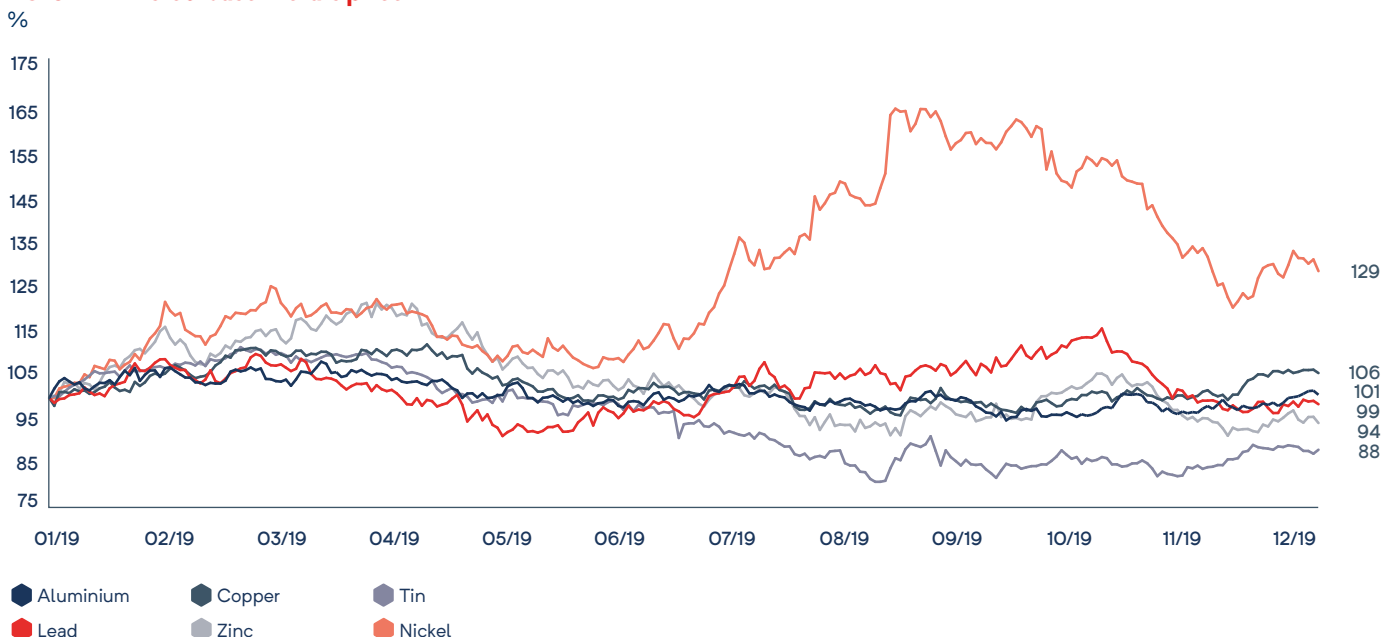
Production of and demand for non-ferrous metals are closely associated with their market prices, with copper and zinc being the most relevant to our business.

- LME-listed base metals have remained relatively stable for the most part of the year, with the exception of Nickel, up c.28% in 2019, as Indonesia export bans drove prices higher in Q3.

2.9%¹

2019 global GDP growth

2019 LME-listed base metals price²



¹ Source: OECD

² Source: Bloomberg

Operational review

This operational review provides a regional breakdown of performance in the Steel Division, and by segment in the Industrial Division. It also provides an overview of our growth markets, India and China.

Steel Division

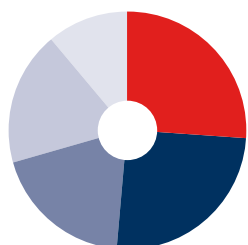
Steel Division revenue

€2,018m

Steel Division gross profit

€467m

Geographical breakdown in Steel Division



North America	26%
Europe	25%
APAC	19%
South America	18%
CIS-MEA	11%

Refractory products in steel plants are used to protect applications such as the basic oxygen furnace (BOF), electric arc furnace (EAF) and ladles from the hot liquid steel. The lifetime of the refractory lining in a steel application ranges from as little as 20 minutes up to as long as two months and are therefore regarded as consumables to the steel industry and as an operational expense by our customers. Refractory products and services are estimated to contribute c. 2-3% to the total customer cost base.

In 2019, steel demand was impacted by ongoing geopolitical issues and trade tensions which together contributed to global uncertainty. This was particularly felt in the automotive, manufacturing and construction sectors, key drivers of the steel industry. Global automotive production contracted in 2019, with material declines in several key automotive markets, including Germany, Turkey and South Korea. The automotive industry continues to be challenged by environmental pressures and the transition towards hybrid electric vehicles. Global construction growth slowed in 2019, due to weakening economic fundamentals and constraints in construction capacity.

The weakening global steel demand impacted the Company, with the Steel Division revenues of €2,018 million in 2019, 10.4% lower than in 2018 (€2,253 million in 2018 on a constant currency basis). On a reported basis, the Steel Division revenue was down by 8.8% (€2,213 million in 2018).

The Steel Division revenues were impacted by the customer de-stocking that has taken place throughout the year. This effect was exaggerated by the elevated stock levels in 2018, where customers had purchased additional refractory products in reaction to the rising raw material prices.

The successful implementation of the Price Management Programme, introduced in April 2019, made an important contribution to profitability in 2019, which has helped offset the weaker demand environment. The programme raised refractory prices across the product portfolio, enabling the Company to further accelerate investment in technology, environmental solutions and production infrastructure to better serve its customers. Steel volumes were, however, impacted by the Price Management Programme, partly as a result of strategic market share loss. 2019 revenues were also reduced by RHI Magnesita's exit from the Iranian market in November 2018.

Gross profit for the division was €467 million, down from €545 million in 2018 on a constant currency basis. The Division achieved a gross margin of 23.1% in 2019, down by 110 bps from the previous year.

One of the near-term strategic initiatives for the Company is to drive the business model towards delivering a suite of services for customers beyond refractory products. These services range from supplying technical expertise and digital solutions through to the complete package of a full-line service offering. The full-line service offering provides bespoke solutions to RHI Magnesita customers, which cover all of their refractory needs for specific steel applications, creating efficiencies for both the customer and RHI Magnesita. RHI Magnesita China won the first solutions contract in the Chinese high quality steel market, worth €20 million, with Guangxi ShengLong which was concluded in the first half of 2019. This was followed by a second large contract in China in January 2020.

Another key strategic initiative to enhance the Company's business model has been to establish in the last quarter of 2019 a new and fully dedicated global Flow Control Business Unit, consisting of a specialised multifunctional team to drive growth in this area of the Division.

Furthermore, in 2019 the Company implemented a global installation services team, which will enable the Steel Division to pursue high value projects at customer sites that had previously been unattainable.

Europe

In Europe, the Company's Steel Division faced strong headwinds throughout 2019. Revenue reported for the region was €513 million, down 17.6% from €622 million in 2018 on a constant currency basis. Revenue was negatively impacted by significantly reduced demand levels from steel producers, as demand declined at rates not seen since the financial crisis in 2007 and 2008. Lower demand was exacerbated with higher iron ore prices, a 70% rise in the price of emission-trading certificates since mid-2018, in addition to the escalating trade tensions.

Steel production in Europe slowed in 2019, as the region faced overcapacity due to import tariffs in the US, and cheap steel from China, Russia, Turkey and others trading into Europe. Industry safeguard measures were put in place by EU officials, but the market reached overcapacity once the quotas were reset in July 2019. This was especially prevalent in Europe's largest steel producing countries, Germany and Italy, where production declined by 6.5% and 5.2%, respectively. Overall, the EU steel production output declined by 4.9%.

The effect on global steel trading was coupled with a significant slowdown in the EU automotive industry. Lower steel prices in 2019 have contributed to several customers announcing cost reduction programmes and production cuts. Regional revenues were affected by intensified price competition and reduced stock levels in customers' plants.

During 2018, customers increased their inventory levels in response to rising raw material prices increasing, following the raw material shortage (especially in dolomite), and as a result of trade tariff discussions. This led to customer destocking of inventory throughout 2019, contributing to softer sales compared to the previous year.

This trend has continued into Q1 2020, with potential further weakness as growth slows with weakening economic fundamentals.

Outokumpu in Alabama — Recycling programme

In 2019, the Company secured its first major services contract to include recycling, with Outokumpu in Alabama, the global leader in stainless steel. Outokumpu requested, as part of their contract with RHI Magnesita, for the installation of an on-site refractory recycling facility. In the first half of 2019, we successfully implemented the facility and this was an important factor in our securing the material contract for a further five years. This is a defining moment for RHI Magnesita, as Outokumpu are the first customer to have an on-site recycling programme, including the dismantling of refractories, as well as installation services for the plant ladle, tundish, Argon oxygen decarburization (AOD) and Electric Arc furnace (EAF) refractories.



By using the crushed recycled refractories instead of dolomitic lime, we reduce waste, increase cost savings and ultimately, create sustainability.



Craig Powell,
Steel Business Unit Head,
North America

[Link to strategy](#)



 Read more on
page 13

Operational review continued

North America

In North America, revenue was €518 million in 2019 down by 7.5% on a constant currency basis, from €560 million in 2018. The implementation of value-based price management, a customer solution-oriented approach, and an adaptable portfolio of products, resulted in the Company improving pricing and delivering higher revenue per tonne, however, this only partially offset the impact of materially lower volumes.

Lower sales volumes were the result of ongoing challenges in Company's end-markets, with increased political uncertainty throughout 2019 and the impact of recently imposed trade tariffs.

The introduction of trade tariffs initially led to more steel production and the creation of additional capacity, but then domestic over-capacity, an increase in imported tariff-exempted steel and subsequent weakened demand drove steel prices down to pre-tariff levels. The softening of steel prices put pressure on the Company to assist with cost-saving initiatives by customers to address declining profitability.

Tariffs on Chinese goods entering the United States persisted throughout 2019. However, the Company benefited from the tariffs limiting the participation of low value refractory competition entering the market. Revenue was negatively impacted by the decline of the price of magnesite which put subsequent pressure on refractory prices. Results were also affected negatively by the closure of several steel plants in the second half of 2019, which struggled to retain competitiveness as steel prices declined.

Looking ahead, the Company will implement higher value service contracts with its customers, driving higher revenue per tonne in 2020.

Volume recovery continues to be an emphasis, with local production to serve local customers, and the Company expects to benefit from the ability to convert opportunities quickly into regular volumes.

Challenging steel conditions are anticipated in 2020, attributed to weakened economic growth and also uncertainty over trade negotiations. Steel producers will continue to focus on cost mitigation with plant idling expected.

South America

In South America, revenue was €361 million in 2019, down by 0.9% on a constant currency basis compared to €364 million in 2018. Revenue was negatively impacted by lower levels of steel production in the region throughout 2019, with production levels 8.4% lower than the previous year, primarily led by a 9.0% fall in Brazil and by a 10.0% fall in Argentina.

However, profitability for the Company was largely maintained despite the decline in demand for refractories, thanks to the improved product mix and better technical results in performance contracts. This demonstrates the Group's improved resilience through its strategy of solutions-based contracts and following the successful implementation of the Price Management Programme with some key clients.

In South America, infrastructure investment is constrained by economic uncertainty and government budget issues.

In 2019, market conditions remained challenging, particularly in Brazil and Argentina. There have been some signs of an improving economic environment in 2020, particularly in Brazil. However this is likely to be undermined by the potential impact of the COVID-19.

CIS-MEA

For countries of MEA and the Commonwealth of Independent States (CIS), revenues were €230 million, down by 19.3% on a constant currency basis compared to €286 million in 2018.

This is mostly related to ceasing business in Iran with the last shipments being sent in Q1 of 2019, fulfilling orders that had been made during 2018. The impact of the exiting the Iranian market in 2019 was €35 million of revenue, of which €30 million were from the Steel Division.

Performance was otherwise reflective of the overall steel market in these regions, where there was limited growth and significant volatility. Conflict in Ukraine has particularly impacted output across the market, and there is uncertainty around when this may recover.

Following the currency crisis in Turkey, construction slowed in the country as a result of the government's decision to slow capital projects, impacting steel demand.

In 2020, the Company will look to strengthen its overall market position. In the CIS, in particular the Company is intending to grow certain product segments and will continue to add value through the solutions business model.

APAC

The Steel Division revenue in the APAC region was €388 million, down by 1.3% on a constant currency basis, from €393 million in 2018.

In India and China, revenue grew by 0.3% to €206 million and 6.8% to €48 million, respectively, on a constant currency basis. Whilst the performance in India was impacted by the country's economic issues, the Company will continue to focus on its growth trajectory, and on maintaining its position as the country's largest refractory supplier.

In China, the Company now has a full range of products for this market and is already showing improved win-rates in recent tenders into 2020, compared to 2019. We will continue to focus on winning market share into 2020 and beyond in China.

Outside of India and China, revenue was down by 5.5% on a constant currency basis to €128 million from €135 million in 2018. Regional revenues followed negative trends in steel production in South Korea and Thailand, which according to WSA decreased output by 1.4% and 34.6%, respectively. However, this was partially off-set by strong performance in Japan and Taiwan, which both outperformed the market.

In APAC, the Company will strategically grow certain product segments, and add value through the solutions business model.


Industrial Division

Industrial Division revenue

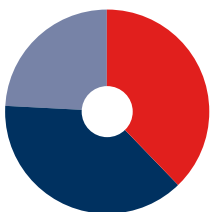
€904m




Industrial Division gross profit

€250m

 Detail on the macro perspective is provided in the sections below, as well as in the Market overview section on pages 36 to 39.

Industrial split



	Cement/Lime	38%
	Other process industries	38%
	Non-ferrous metals	24%

The Industrial Division provides refractory solutions to customers across the cement, lime, glass, non-ferrous metals and environment, energy and chemicals (EEC) industries. The Industrial Division segments are subject to longer replacement cycles as the lifetime of a refractory product in these industries varies anywhere between one year to twenty years. Cement is more similar to steel however, in its refractory consumption characteristics, as it has a replacement cycle for clinker production (clinker is the main ingredient in cement production) of almost a year and so is likened more to a consumable by the Cement customers.

Demand for cement is closely linked to the construction industry, and lime is linked to the steel industry. Non-ferrous metals industries are closely linked to the market price of non-ferrous metals, and EEC is linked to oil prices.

The Industrial Division has continued to perform very strongly with 2019 revenues of €904 million up 3.6% and gross profits of €250 million. The gross margin improved again to 27.7%, up by 350 bps compared with 2018.

Cement/Lime

The Cement/Lime segment in 2019 contributed €344 million to Group revenues, or 12%. Cement/Lime revenues amounted to 38% of the Industrial Division's revenues. Revenue for the Cement/Lime segment were up by 6.4% in 2019 from €324 million in 2018 on a constant currency basis, constituting a record year for the Cement/Lime segment.

This performance, which also included an improved margin, was driven by selective price increases, improved product portfolio choices and increasing demand for the services offered from the Cement/Lime segment leading to market share gains specifically across China, MEA and CIS.

In 2019, global cement demand grew 1% ex-China. While China continues to be the world's largest cement producer, it is removing cement capacity due to overcapacity and environmental considerations leading to a global cement market contraction of c. 3-4%. India is the highest growth market with 4%. Other regions showed a stable, but locally volatile demand picture, such as in the Middle East and South America.

Demand in Europe has been slightly weaker in 2019, given customer destocking, following the inventory build-up that took place at customer sites during 2018 as a result of tightening

magnesite and dolomite raw material availability during 2018.

The market demand for lime is broadly stable, and this trend continued throughout 2019. However, revenues were up significantly compared to 2018, largely thanks to a strong project pipeline throughout the year. Additionally, there has been increased customer demand for the full solutions offering.

Initial forecasts for the global cement and lime markets were for a stable market in 2020 with growth of c.1-2% excluding China. However, the impact of COVID-19 is likely to impact this.

Other process industries

Other process industries comprise the glass, EEC and mineral segments. Revenue amounted to €339 million and contributed 12% to Group revenue and 38% to Industrial revenue. 2019 revenue was 2.0% higher than 2018 revenue, at €330 million on a constant currency basis. The glass industry has continued to grow in 2019, also supported by the recent trend in consumer demand towards recyclable glass packaging and away from single use plastic packaging, in response to increased environmental awareness and potential health risks.

Europe, Africa and Americas all benefited from increased demand, and Eastern Europe and CIS regions performed well, thanks to an increase in projects, whilst activities slowed in the Middle East and Africa and Asia Pacific. China and India have begun transitioning to higher performance materials for better glass quality and longer furnace life times.

The float glass sector maintained momentum throughout 2019, predominantly through the repairs business. For the investments business, the key driver of growth was the construction industry, through both regional expansions and from increased demand for eco-friendly buildings which conserve heat through multiple glass sheet windows, and through coating with better heat absorption.

In the EEC sector, volumes were flat, whilst revenue and profitability increased in 2019, as customer take up for services increased.

In particular the sector experienced increased demand from customers in construction services, refractory engineering and supervision services. The strong performance was mostly thanks to several large projects in H1 2019, followed by significant maintenance demand in H2 2019.



After just over a year, our team in Research & Development succeeded in solving a problem that has been a hard nut to crack for the entire industry for a long time.



Stefan Rathausky,
Head of Cement/Lime

China, India and North America all benefited from higher demand for project orders, from increased investment activities. Greenfield projects in Europe and the Middle East slowed due to lower demand.

2019 saw strong demand in the pelletising industry, coke oven business and in energy generation, whereas development of other applications was flat year-on-year, due to fewer investment projects (greenfield and capital projects).

Throughout 2020, the Company expects a more complicated environment due to macroeconomic uncertainties. However, 2019 proved that the streamlined business is working well and will continue to be effective throughout 2020 in growing the glass business, and expanding service solutions for our customers.

Non-ferrous metals

Revenue contribution from the non-ferrous metals business amounted to €221 million, contributing 8% to Group revenue and 24% to Industrial Division's revenues. The non-ferrous metals business grew by 1.5%, up from €218 million in 2018 on a constant currency basis.

The business performed well in the first half, however experienced lower order intake than expected in the second half, in line with the broader global slowdown triggered by trade barriers and macroeconomic concerns.

At the beginning of 2019 the LME listed metals, including copper and zinc, showed upwards price movements, whereas all other listed base metals and precious metals were at comparably low levels. RHI Magnesita's main LME listed metal end-market is copper, and elevated prices in 2019 meant that RHI Magnesita saw an uptick in the

repair business. Similar to 2018, the business was predominantly driven by repairs and maintenance work, rather than new greenfield projects. Looking forward, there are several new smelters in an advanced planning stage in Indonesia, where an ore export ban has driven demand for new domestic facilities. Further demand for refractories used in copper and cobalt production (and other battery metals) is anticipated throughout the year, with the increase in electric vehicles.

The platinum-group metals "PGM" sector, notably palladium and platinum which are both used in automotive catalytic converters, performed well during the year as the Company provided large repairs for long-term customers, mainly in South Africa. Aluminium continues to be a commoditised business in terms of refractory supply to the primary aluminium sector. However, in 2019, the Company completed its largest ever aluminium project in China, for an original equipment manufacturer "OEM".

Looking ahead, with the many new global trade barriers in place and the slowdown in the automotive and steel industry, there may be an overall stagnation in refractory demand for the non-ferrous sector. However, this should be compensated for by demands from new capacity in the environmental industries as well as for e-mobility related applications.

Additional demand from customers for solutions has strengthened the performance of the business throughout 2019, as well as demand for digital 4.0 offerings. This trend is expected to continue throughout 2020.

Ankral-X series

In 2019, the Company successfully rolled out a new product line, the Ankral-X series, developed by our in-house Research and Development team using Spinosphere technology. The Spinosphere technology involves using treated spinels to increase thermal shock resistance and flexibility to the rotary kiln bricks, but without any substantial impairment to other important properties. In response to increased environmental pressures on end-markets in the cement industry, the segment has also introduced a low CO₂ emission series this year, containing recycled materials.

Link to strategy



 Read more on
page 13

New Markets

China revenue

€184m

India revenue

€252m

China

RHI Magnesita China revenues were up by 9.7% in 2019 on a constant currency basis compared to the previous year. The region recorded revenue of €184 million, up from €168 million in 2018.

As part of its strategy to penetrate new markets, the Company has focused on increasing market share in China. In particular, the Cement/Lime segment showed exceptional performance in China over the course of the year and now has around 10% market share. In 2019, the new dolomite hub in Chizhou began operations and this will enable China to increase its backward integration and cost-efficient production. The Company celebrated the success of winning its first ever solutions contract in China, with GuangXi ShengLong, in the first half of 2019. This was followed by a second large solutions contract in China in January 2020.

However, there has been an overall slowdown in Chinese steel demand as demand is linked to fixed asset investment growth, which has been declining since mid-2019. Furthermore, Chinese steel demand has been affected by the weaker automotive sector. The higher quality and specialist steel segment in China fared more positively, however, being less affected by the underlying demand volatility.

The Chinese economy has had a material impact from the effect of COVID-19.

Whilst there is likely to be actions from the government to stabilise the economy, the performance overall for 2020 is uncertain.

India

India continues to be one of the key growth markets for the Company and has been delivering steady growth in revenue and margin, as well as gains in market share over the years.

In 2019, India was flat on a constant currency basis, at €252 million, versus €251 million in 2018.

The demand and consumption of the Indian steel industry has continued to grow, with production increasing by 1.8% compared to 2018. However, from the second quarter of 2019 onwards, the domestic steel industry witnessed sluggish demand on the back of slow GDP growth and a slowdown in the automotive and construction sectors, following the liquidity crisis. The slowdown continued until the end of the year, creating demand and margin pressure for the Company.

Against this backdrop, the Steel Division revenue for India was broadly flat in 2019, down to €206 million versus €208 million achieved in the previous year on a constant currency basis. Despite the economic backdrop, the Indian operations maintained their effective deployment of internal cost control, inventory management, receivable recovery and synergy measures, which helped the Company navigate these more difficult market conditions.

Throughout the year, the Group continued to drive operational efficiencies and synergies in its Indian operations. The Group was able to achieve substantial integration of its production, supply chain and sales network, which will deliver significant value to our customers and other stakeholders.

As part of the strategic expansion in India to increase capacity and improve customer services, we bought Intermetal Engineers Pvt., a metallurgical equipment manufacturer in May 2019 for €1.3 million, and separately acquired a refractory brick plant in September 2019 from Manishri Refractories & Ceramics Pvt. Ltd. for €5.5 million.

With Government interventions such as lower interest rates, corporate tax cuts and various reforms including large planned infrastructure spend, steel consumption growth in India is forecast at 5% CAGR for the next 3 years. However, in the short term, this may be undermined further by broader economic slowdown.



Key performance indicators

The Board and Management have identified the following indicators which it believes to reflect the financial and non-financial performance of the business.

Revenue



2019	€2,922m
2018	€3,081m
2017	€2,681m

KPI relevance

This demonstrates the organic growth of the business. By increasing our global refractory market share, continually enhancing our product and service offering, the Company is focused on achieving revenue growth and aims to outperform the refractories market on an annual basis.

How it is measured

Total Group revenue, as reported in the financial statements.

2019 performance

Revenue for 2019 amounted to €2,922 million, 5% lower than 2018. This performance is mainly attributable to weaker steel end markets, raw material price reduction steel customers' destocking of refractory inventory.

Safety: LTIF



2019	0.28
2018	0.43
2017	1.06

KPI relevance

Safety is paramount to the successful running of our business and therefore sits at the core of everything we do. LTIF is the main safety KPI we use to measure the safety performance of the Company. Directors' remuneration is directly linked to safety objectives.

How it is measured

The number of accidents resulting in lost time of more than eight hours, per 200,000 working hours, determined on a monthly basis.

2019 performance

LTIF reached an all-time low of 0.28 in 2019, with improvements in all regions. This represents a 35% reduction compared to 2018.

Adjusted EBITA margin



2019	14.0%
2018	13.9%
2017 ¹	9.7%

KPI relevance

EBITA margin provides a measure of profitability and demonstrates the successful execution of the integration and the Company's corporate strategy. Synergy targets, which impact EBITA margin performance, are included in Directors' remuneration.

How it is measured

Adjusted EBITA divided by revenue, as reported in the financial statements.

2019 performance

Adjusted EBITA margin was 14.0%, 10bps higher than the previous year reported figures, driven mainly by the successful implementation of the Price Management Programme and the turnaround of operational issues despite the deteriorating volume environment in the steel market, raw material price reduction and a lower fixed cost absorption.

R&D & Technical Marketing spend



2019	€64m
2018	€63m
2017	n/a

KPI relevance

This demonstrates our commitment to driving innovation and to being the leading provider of services and solutions within the refractories industries. Excellence in R&D and strong Technical Marketing capabilities are key contributors to our competitiveness. The Company aims to invest 2.2% per annum of revenue in R&D and Technical Marketing going forward.

How it is measured

Annual spend on research and development, before subsidies and including opex and capex.

2019 performance

€64 million was committed to R&D and Technical Marketing in 2019, equating to 2.2% of revenues, in line with the Group's annual commitment.

[Link to strategy](#)


Competitiveness

Business
model

Markets



People

See our strategy
page 13**Adjusted EPS**

2019	€5.57
2018	€5.31
2017	n/a

KPI relevance

Reflecting the income statement in a clear way and taking the equity structure into account, the Board believes adjusted EPS to be one of the indicators which demonstrate value being created for its shareholders.

How it is measured

Earnings per share, excluding items such as FX effect, merger-related costs, re-financing costs and other financial income and expenses.

2019 performance

Adjusted EPS of €5.57 reflected robust performance of the business as well as the achievement of synergies, improving from Adjusted EPS of €5.31 achieved last year.

Voluntary employee turnover

2019	6.5%
2018	6.6%
2017	n/a

KPI relevance

Voluntary employee turnover is considered to be one way of measuring the Group's success in retaining its people.

How it is measured

The percentage of employees who voluntarily left the Company during the year and were replaced by new employees.

2019 performance

Voluntary employee turnover was 6.5% for 2019.

Leverage

2019	1.2x
2018 ¹	1.3x
2017 ¹	2.1x

KPI relevance

A suitable leverage provides the business with headroom for compelling investment opportunities but also enables distribution to shareholders. Directors' remuneration is directly linked to free cash flow generation, which impacts Group leverage. The Board has defined a long-term leverage target range of 0.5 to 1.5x across the cycle.

How it is measured

Net debt to adjusted EBITDA¹.

2019 performance

Net debt at Year-end amounted to EUR 650 million, comprising total debt of EUR 1,055 million, cash and cash equivalents of EUR 467 million and leases of EUR 62 million. This compared to net debt of EUR 639 million in 2018, which excludes the impact from IFRS 16 leases.

Gender diversity in leadership

2019	17%
2018	12%
2017	8%

KPI relevance

Diversity is important in terms of maintaining the Group's competitiveness and economic success and gender diversity is a key component of this. The Company has a target to increase women on our Board and in senior leadership to 33%.

How it is measured

Number of women as a percentage of all those in leadership positions (CEO, EMT and EMT direct reports).

2019 performance

Female representation at leadership level slightly improved to 17%. The Company is maintaining current progress to meet the Company target of 33% by 2025.

¹ 2017 and 2018 figures have been adjusted to include the impact of IFRS 16.

Financial review



Despite difficult end markets in 2019, the Group has recorded resilient margins, solid balance sheet position and strong cash flow generation to support our capital allocation strategy.



Reporting approach

The Company uses a number of alternative performance measures ("APMs") in addition to those reported in accordance with IFRS, which reflects the way in which Management assesses the underlying performance of the business. The Group's results are presented on an "adjusted" basis, using APMs which are not defined or specified under the requirements of IFRS, but are derived from the IFRS financial statements. The APMs are used to improve the comparability of information between reporting periods and to address investors' requirements for clarity and transparency of the Group's underlying financial performance. The APMs are also used internally in the management of our business performance, budgeting and forecasting. Reconciliation of certain metrics to the reported financials is presented in the section titled APMs.

All references to comparative 2018 numbers in this review are at constant currency, unless stated otherwise. Figures presented at constant currency represent 2018 translated to average 2019 exchange rates.

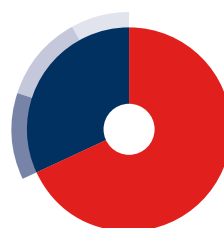
Revenue

2019 revenue amounted to €2,922 million, 6.5% lower than 2018 (2018: €3,126 million). This reduction is primarily attributable to lower refractory volumes from the Steel Division, as a result of inventory destocking at customers' sites amid a weak steel production market environment. Global steel production ex-China declined 1.7% in 2019 with production weakening as the Year progressed. Additionally, the exit from the Iranian market and the implementation of the Price Management Programme contributed to further volume losses. In the Industrial Division, the Group continues to benefit from the positive momentum seen in 2018, with improved performance in all three segments (Cement & Lime, Non-ferrous metals, and Process Industries). This performance in the Industrial Division was underpinned by the positive dynamics in customer industries despite the weak raw material pricing environment.

The Group's Steel Division revenue amounted to €2,018 million, (2018: €2,253 million) down 10.4% from the previous year. The Industrial Division benefited from positive global GDP growth of 2.9% and was able to drive organic growth, increasing revenue to €904 million in 2019 (2018: €873 million), up 3.6% from the previous year.

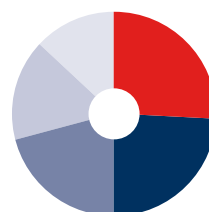
From their elevated prices in 2017 and 2018, raw material prices have fallen in 2019 particularly in the fourth quarter. Accumulated overcapacity in supply and inventory coupled with a sluggish market environment, have had a significant impact on raw material prices. These lower levels are expected to continue in the short-term. Despite the current lower prices, the Group's high level of raw material backward integration continues to deliver benefits to RHI Magnesita, in terms of additional margin contribution, customer supply security and enabling unique product solutions for the market.

Revenue split by industry



Steel	69%
Industrial	31%
Cement/Lime	12%
Other process industries	12%
Non-ferrous metals	8%

Revenue by geography



Europe	26%
North America	24%
APAC	21%
South America	16%
MEA-CIS	13%

Gross profit

Gross profit declined 5.2% to €717 million in 2019 (2018: €756 million), as a result of decreasing raw material prices, lower deliveries to Steel customers amid weaker end markets, which has consequently led to lower fixed cost absorption. This was partially offset by the successful implementation of the Price Management Programme and the turnaround of operational issues identified in H2 2018 in certain plants of €15 million. This represented a gross margin of 24.5%, 30 bps higher than in the previous year. On a divisional level, gross profit from the Steel Division reached €467 million, with 23.1% gross margin in 2019 (2018: 24.2%). Gross profit for the Industrial Division was €250 million, representing a gross margin of 27.7% in the Year (2018: 24.2%).

SG&A

Total selling, general and administrative expenses, before R&D related expenses, stood at €309 million (2018: €316 million), representing 10.6% of revenue in 2019 (2018: 10.3%). The delivery of the remaining synergies targeted for the Year contributed to the lower spend in 2019.

Adjusted EBITA

Adjusted EBITA for the Year was €408 million, 8.9% lower than 2018 (€448 million) and adjusted EBITA margin was 14.0%, 30 bps lower than 2018. This was primarily driven by the deteriorating volume environment in the steel market, raw material price reduction and lower fixed cost absorption, which was partially offset by the successful implementation of the Price Management Programme launched in H1 2019, a €15 million benefit from the turnaround of the operational issues in 2018 alongside delivery of an additional €20 million in synergies in 2019.

Net finance costs

Net finance costs in 2019 amounted to €75 million (2018: €163 million), which represented a 54% decrease from the previous year. This significant decrease is largely due to the Group's efforts aimed at reducing interest expenses on borrowings, reducing the translation effects on non-euro denominated debt and derivatives, moving to a euro-based debt portfolio to further reduce funding costs, increasing its exposure to floating interest rates and repaying higher interest legacy debt.

As a result of these initiatives, interest expenses on borrowings for 2019 amounted to €28 million (2018: €49 million), mainly attributable to refinancing on legacy high interest-bearing debt. Interest income recorded €9 million, broadly flat with the previous year (2018: €10 million).

Foreign exchange and derivative variances amounted to €17 million in the Year (2018: €81 million), all of which referred to derivative losses related to the Group's previous hedging policy. In August 2019, the Group has restructured its hedging policy and will no longer be exposed to these derivative variances and also minimised the foreign exchange translation effects on the P&L.

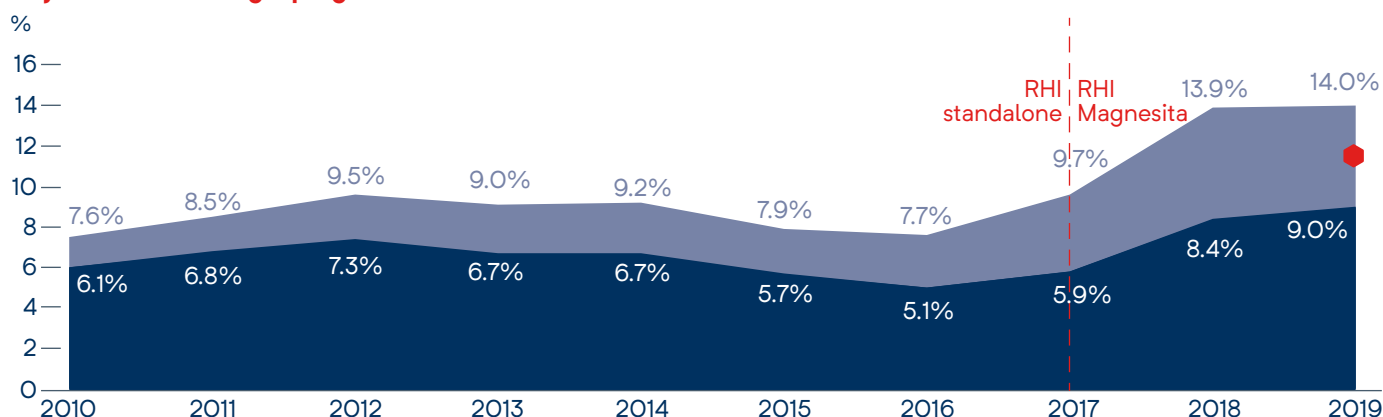
Other net financial expenses recorded €39 million (2018: €43 million), which primarily refer to non-cash adjustments related to the provision for the unfavourable contract required to satisfy the EU remedies, pension and non-controlling interest related expenses.

Items excluded from adjusted performance

In order to accurately assess the performance of the business, the group excludes certain non-recurring items from its adjusted figures. These adjustments comprise:

- €108 million recorded in "Other income and expenses" predominantly related to the restructuring costs associated with the closure and downsizing of two plants in Europe, as part of the Production Optimisation Plan with severance costs of €18 million and impairments of €52 million, additional severances of €19 million for corporate reorganisation costs and the impairment of

Adjusted EBITA margin progression



■ Backward integration margin

■ Refractory margin

● At current raw material prices, backward integration contributes 2.5% to 2020 forecast EBITA margin (as at 1 April)

Financial review continued

Adjusted profit after tax

€284m

Adjusted earnings per share

€5.57

Earnings per share:

€m	2019 reported	Items excluded from underlying performance	2019 adjusted
EBITA	300	108	408
Amortisation	(26)	26	-
Net financial expenses	(75)	14	(62)
Share of profit in joint ventures	1	10	11
Profit before tax	200		358
Income tax ¹	(51)	(23)	(74)
Profit after tax	149		284
Profit attributable to shareholders	139		274
Weighted average number of shares outstanding (m)	49.2		49.2
Earnings per share	€2.82		€5.57

the Norway plant in Porsgrunn of €14 million. Total restructuring and write-down expenses associated with these initiatives amounted to €112 million.

- €14 million related to non-cash other net financial expenses. These include €9 million non-cash present value adjustment of the provision for the unfavourable contract required to satisfy the EU remedies and €4 million of foreign exchange movements on the Group's certain non-Euro denominated debt, as detailed in the "Net Financial Expenses" section. These intercompany loans have been restructured in July 2019 and there will no future foreign exchange movements.
- €10 million write-down of a joint venture loan related to the restructuring of Sinterco (European dolomite mine)
- An adjustment to effective tax rate excluding one-time charges such as the restructuring and impairment expenses to reflect the underlying effective tax rate.

Taxation

The Company's effective tax rate for the Year was 25.5% (2018: 23.9%). The increase year-on-year is mainly due to one-off tax charges related to the closure of production facilities. These costs resulted in non-deductions across tax regions for RHI Magnesita. Excluding these one-time charges, as set out above, the effective tax rate for the Year would have amounted to 20.6%.

RHI Magnesita's tax rate is sensitive to changes in the geographical distribution of worldwide profit and losses and tax regulations in each region. Other key factors affecting the sustainability of the Group's effective tax rate are set out in note 45 to the financial statements, which provides additional information on the Group's tax rate.

Profit after tax and earnings per share

On a reported basis, the Company recorded a net profit of €149 million and earnings per share ("EPS") of €2.82 per share in 2019 (2018: €187 million profit and €3.52 per share respectively).

Adjusted earnings per share for 2019 were €5.57 (2018: €5.31), which is stated after excluding items detailed above and amortisation of intangible assets (€26 million).

Cash flow

Operating free cash flow amounted to €359 million in 2019 (2018: €438 million), primarily due to the weaker operational performance and working capital cash consumption.

Total free cash flow, which includes the one-off cash disbursements from the Magnesita minority acquisition, share buyback expenses and restructuring costs related to the merger totalled €105 million.

¹ Effective tax rate for adjusted EPS is calculated by applying the effective tax rate normalised for restructuring expenses and impairments. See APMs for further detail on page 225.

Operating and free cash flow:

	2019 €m
Adjusted EBITA	408
Working capital	(23)
Changes in other assets/liabilities	(17)
Capex	(156)
Depreciation	146
Operating free cash flow	359
Cash Tax	(68)
Net interest expense	(42)
Restructuring and transaction costs	(6)
Magnesita minority acquisition	(45)
Dividend payout	(76)
Share buyback	(19)
Free cash flow	105

Capital expenditure

Capital expenditure for 2019 stood at €156 million (2018: €123 million), which comprised €110 million of maintenance capex and €46 million of project expenditure. As announced at the Capital Markets Day in November 2019, additional project expenditure is expected to continue until 2022 to support the Company's strategy for the Production Optimisation Plan, Sales Strategies, R&D and other small, fast payback projects. In 2020, project expenditure is expected to be around €65 million, of which €55 million will go towards the Production Optimisation Plan and Sales Strategies initiatives and €10 million to support other small, fast payback projects. Maintenance capex is expected to be around €85 million in 2020 and €95 million for subsequent years.

Working capital

Working capital at 31 December 2019 was €523 million (2018: €511 million), up slightly due to the higher cash consumption in accounts payable of €145 million in 2019, as fewer purchases of raw material were made during the Year. This was offset by a material improvement in inventory levels, which have reduced year-on-year, leading to cash generation of €111 million. This was mainly driven by the Group's efforts to reduce stock in our warehouses, improve efficiency of raw material and finished goods inventory by adjusting production to current demand levels. Accounts receivable also improved in 2019 when compared to the previous year with €11 million of positive cash impact due to ongoing improvement of client terms, material reduction of outstanding receivables, and to an extent, lower revenues. Total cash flow consumption from working capital in 2019 amounted to €23 million.

In terms of working capital intensity, measured as a percentage of last three months annualised revenue, the Group recorded 18.3% at year-end, 290bps higher than 2018. This was primarily driven by lower revenue recognised in the last three months of the Year amid weaker market demand. On a half-on-half basis, working capital, both in absolute terms and as a percentage of revenue has improved. Cash flow generation from working capital in H2 2019 amounted to €95 million (H1 2019: €-118 million) and working capital intensity improved 270bps against intensity recorded in H1 2019.

Working capital financing, used to provide low cost liquidity to the Group, was at €290 million at the end of the Year (2018: €316 million). This comprised €223 million of accounts receivable financing (factoring) and €67 million of accounts payable financing (forfeiting). Going forward the Group expects its working capital financing level to stay below €320 million.

Improving working capital performance will continue to be a focus area in 2020. In H2 2019, the Group rolled out its Tactical Network Optimisation modelling tool to optimise raw material and refractory plant loading for best value. In addition, and to support decision making and enhance demand planning with global customers and suppliers, the Group is implementing an Integrated Business Planning system in H1 2020. This will enable the Company to move towards its target of 15-18% working capital intensity in the medium term.

Free cash flow

€105m

Working capital intensity

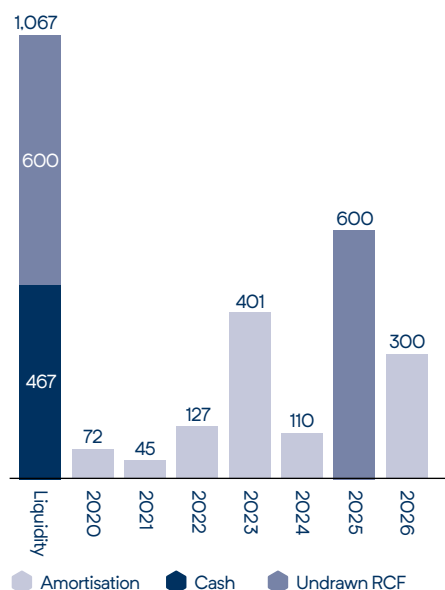
18.3%

Financial review continued

Net debt

Net debt at the end of the Year amounted to €650 million, comprising total debt of €1,055 million, cash and cash equivalents of €467 million and IFRS 16 leases of €62 million. This compared to net debt of €697 million in 2018, which includes the pro forma impact from IFRS 16 leases (2018: €58 million). Net debt to EBITDA stood at 1.2x, 0.1x lower than the previous year (2018: 1.3x), despite the remaining cash outflows related to the payout to Magnesita's minority shareholders (€45 million). This low leverage profile has allowed the Company to improve liquidity and extend the maturity profile of its instruments. Total liquidity is now at €1,067 million, as the Group increased its undrawn facilities from US\$400 million to €600 million and more than 60% of the Group's maturities are due on or after 2023.

Amortisation schedule (€m as at 31 December 2019)¹



Synergy delivery

The Group has continued its successful integration during 2019, achieving incremental synergies of €20 million, bringing the annualised total to €90 million. The additional €20 million of synergies achieved in 2019 had an associated restructuring cash cost of €6 million, taking the total cash cost since merger to €84 million. As set out above, there will be no further synergies in 2020.

Key initiatives

RHI Magnesita announced its plans for the next round of savings and investment opportunities at a Capital Markets Day in November 2019. Two key initiatives were presented and are expected to bring an additional €70–80 million of EBITA benefit by 2022.

- The Production Optimisation Plan, targeting the Company's global production footprint, increasing plant specialisation, improving raw material integration and implementing state of the art technologies is expected to bring €40 million of EBITA benefit by 2022.
- Sales Strategies will be focused on expanding the Company's presence in growth markets, improving the solutions offering and investing in digitalisation, are expected to generate an added €30–40 million in EBITA benefit.

Total cost to achieve the aforementioned EBITA benefit from these two initiatives will amount to €220 million by 2022, of which €165 million will consist of additional capex and €55 million will relate to restructuring costs. The Company also anticipates approximately €70 million of non-cash impairments to be recorded as a result of the plant closures in Europe, of which €52 million was recorded in 2019.

Returns to shareholders

Despite the Group's strong financial position, the uncertainty relating to COVID-19 means that alongside the efficiency measures we are taking to preserve cash, the Board has decided not to recommend the payment of a final dividend for 2019. This decision will be reviewed later in the year once the outlook becomes clearer. The Board believes that this is an appropriate and prudent measure to take as it seeks to preserve RHI Magnesita's strong liquidity, cashflow and financial position through these uncertain times.

Net debt to EBITDA

1.2x

Available liquidity

€1.1bn

¹ Revolving credit facility increased to €600 million in January 2020 with maturity in 2025 and optionality of additional 2 year extension

Risk management approach

The Group has developed a Risk Management approach with the objective of identifying, assessing and controlling uncertainties and risks related to existing and foreseeable future operations.

The approach is based on an assessment of "Risk Appetite" formed by the Board covering the key risk categories. Given its importance to the Group, the Board has additionally defined a more detailed "Risk Appetite" for Sustainability risks.

The risk management approach combines top-down, bottom-up and subject specific risk assessments. The top-down risk assessment is performed by the Executive Management Team, reviewed by the Audit Committee and the reporting against these risks is inherent within each Board meeting, EMT meeting and strategic review. The bottom-up risk assessment is based on each of the operations' sites who maintain ongoing risk management activity which is linked the quality management-based governance practices. Subject specific risk assessments are performed for areas of emerging or important risks. In 2019 detailed risk assessments were performed on Sustainability, IT and Fraud Risks and these were reviewed by the EMT and Audit Committee.

Group Risk chart



1 Macroeconomic environment and condition of customer industries leading to significant sales volume reductions

2 Raw material prices drop sharply, fluctuations in exchange rates and energy prices

3 Inability to execute key strategic initiatives

4 Significant changes in the competitive environment or speed of disruptive innovation

5 Business interruption and supply chain disruption

6 Sustainability — Environment risks

7 Sustainability — Health & Safety risks

8 Regulatory and compliance risks

9 Cyber and information security risk

10 Product Quality Failure

11 Inconsistent demonstration of RHIM culture, values and related behaviours

Development of the risk identification and assessment process

The risk management approach is effectively the approaches at the time of the merger with enhancements added in the subsequent period. It is recognized that while each element of the risk management approach has been supported by appropriate training and is undertaken with the appropriate diligence and management review, RHI Magnesita would benefit from basing all risk management activity on a single integrated Enterprise Risk Management (ERM) framework. An ERM will be designed and implemented in 2020 with the aim of improving consistency and efficiency of risk management.

Risk mitigation

All risks considered to be unacceptable on account of their nature or their potential financial or qualitative impacts are mitigated by appropriate strategies. The implementation and effectiveness of the defined mitigation measures are reviewed, and additional actions are defined if necessary. For this purpose, the impacts of risks are considered before and after the implementation of those mitigation measures.

Risk: our internal control system

Our principal risks

The principal risks are those the Board considers may have a significant impact on the results of the Group and on its ability to achieve its strategic objectives.

The risks can occur independently from each other or in combination. Extraordinary events, such as the COVID-19 pandemic, have the potential to crystallise multiple principal risks simultaneously, with the effect that the impact could be significantly magnified. As a response to the current circumstances, a bespoke risk assessment was undertaken by the Executive Management Team to assess the cumulative impact and the appropriate mitigating actions.

This is not an exhaustive list of risks faced by the Company but encompasses those considered to be most material to business performance.

In compiling the current principal risks, specific risks on Product Quality and Achieving a Consistent Corporate Culture have been added based on their assessment by the Board during 2019. To support more effective disclosure and reflect the high level of focus on Sustainability the risks on Environment and Health & Safety have been shown separately in this report.

A risk appetite rating has been applied to each risk, ranking from averse to minimalist, cautious and flexible.

We assess our principal risks in terms of their potential impact on our ability to deliver our strategic objectives, their likelihood to occur and their potential velocity. Those risks and their assessments are reviewed by the Board.

- 1 Macroeconomic environment and condition of customer industries leading to significant sales volume reductions
- 2 Raw material prices drop sharply, fluctuations in exchange rates and energy prices
- 3 Inability to execute key strategic initiatives
- 4 Significant changes in the competitive environment or speed of disruptive innovation
- 5 Business interruption and supply chain disruption
- 6 Sustainability — Environment risks
- 7 Sustainability — Health & Safety risks
- 8 Regulatory and compliance risks
- 9 Cyber and information security risk
- 10 Product Quality Failure
- 11 Inconsistent demonstration of RHIM culture, values and related behaviours

The impact of the COVID-19 virus has the potential to crystallise elements (or raised the inherent likelihood) of principal risks 1, 2, 3, 5, 7, 8, 9.

Board and Management Control Systems

RHI Magnesita aims to follow both the corporate governance requirements of the regulations of both the Netherlands, given the location of its incorporation, and the UK, given the location of its listing. Where possible the disclosures are combined in this report, however there are areas where the respective governance requirements necessitate similar but separate assessments. Such an area is the required disclosure and description of RHI Magnesita's control environment and systems. Therefore, the Company provides both a "Management In-control Statement" as required by the Dutch Corporate Governance Code and an Internal Control System's report as required under the U.K. Corporate Governance Code. Both outline the measures that RHI Magnesita takes to ensure a strong control environment.

Internal Control System

The Board is ultimately responsible for maintaining effective Corporate Governance, which includes the Group's risk management approach, the Group's system of internal controls and the Group's internal audit approach.

The Board reviews the effectiveness of the system of internal financial, operational and compliance controls and the risk management framework. The Board examines whether the system of internal controls operated effectively throughout the year and will make recommendations when appropriate.

These systems are based on the three lines of defence model, supported by an internal control guideline reflecting the responsibility for risk management and internal controls at all management levels.

The Group's risk management framework is designed to enable the application of the Group's risk appetite. This typically seeks to avoid or mitigate risks rather than to eliminate completely the risks associated with the accomplishment of the Group's strategic objectives. It provides reasonable assurance but not absolute assurance against material misstatement or loss.

The Group has in place a specific risk management approach and an internal control framework in relation to its financial reporting process and the process of preparing the financial statements. These systems include policies and

procedures to ensure that adequate accounting records are maintained and transactions are recorded accurately and fairly to permit the preparation of financial statements in accordance with the applicable accounting standards. For the accounting process, an accounting handbook is available that addresses all the internal control issues into the accounting process.

The Group has an Internal Audit function, with a reporting line to the Chair, Audit Committee and a secondary reporting line, for day to day operational matters, to the CFO. The Internal Audit function provides assurance to the Audit Committee and the Board on the design and effectiveness of the internal control framework.

The re-modelled global internal audit function was launched in January 2019 working to a single risk-based annual audit plan and using a consistent approach across the Group. During 2019, the Internal Audit function established dedicated resource based in Europe, Americas and Asia and also engaged specialist co-source support to provide subject matter experts where necessary. The 2019 annual internal audit plan included audits focussing on strategic risks, global business processes, IT and business transformation and has been delivered. The Audit Committee has conducted an assessment of the effectiveness and capability of the Internal Audit function in 2019 based on the outputs delivered and stakeholder feedback and concluded that the performance of internal audit is appropriate for the requirements of the Group. Further improvements to internal audit will be delivered in 2020 including efficiencies in the audit approach and increased alignment of internal audit work to strategic risks.

During 2019, Internal Audit conducted 25 planned internal audits and 11 special investigations, reporting the most relevant observations and recommendations to the Audit Committee.

In 2019, the Group has not identified any individual material failings in its internal risk management and control system however the reports by management and Internal Audit facilitated consideration by the Audit Committee and appropriate management responses on the following key control framework challenges:-

- Ensuring that the Code of Conduct is consistently adopted across the full scope of Group operations.
- Revisiting relevant legacy issues to ensure they reflect the current approach to Corporate Governance.

- Establishing appropriate delegated authority levels for local country-based management teams in the context of new global corporate policies and approaches.
- Continuing to enhance controls over Information Security.
- Balancing the objectives of speed and effective governance in delivering strategic objectives such as shared service centres.
- Accelerating the delivery of post-merger activities to provide an integrated internal control framework particularly in the IT platforms.
- Ensuring the internal control framework is aligned with the innovative, empowered and dynamic Group culture.

Although the Board considers the Company's risk management and internal control system are appropriate and effective to give reasonable, but not absolute assurance against material misstatement or loss, given the continued evolution of the Company post-merger and the decentralised nature of the Group, there is need for further strengthening of the internal control system in 2020.

Management "In-Control" Statement

The Board and EMT are responsible for ensuring the Company has adequate risk management and internal controls systems in place.

The core design of the internal control systems is based on extensive work conducted as part of the merger activity in 2017. The internal control system was operated in line with this core design throughout 2019. Given that the internal control systems are subject to continual evolution and that key initiatives such as Integrated Business Planning will be launched in 2020, it is planned to reassess and update the design of the internal control systems in 2020.

During 2019, the Board and EMT reflected the transition of the Company by placing increased reliance on the post-merger assessments of the risk management and internal control systems in addition to the definitive independent assessments performed by third-party experts at the time of the merger. Whilst no material deficiencies have been identified, management have included enhancing internal controls as part of wider strategic changes and in response to internal assessments. The key internal control measures during 2019 included reviews of financial performance and key control weaknesses at each Board meeting, monthly

and quarterly EMT review and challenge of operational financial performance, zero-based business planning process, improving the financial reporting processes, continued deployment of the corporate culture and values especially to the more remote areas of the Company, reinforcement of the Code of Conduct through increased trainings and communication, deployment of tools to increase leadership capabilities, enhancing the response to issues raised via the whistle-blowing process and strengthening the capability of the Internal Audit, Compliance and Legal functions. All key changes in the internal control framework were reviewed by the EMT. Each leader is accountable for the effectiveness of the internal controls within their areas of responsibility and is required to complete a self-certification reporting their assessment. Measures are applied in each functional area to assess the effectiveness of internal controls and any identified issues are escalated. Control weaknesses identified by management and those identified through the quality management system reviews, risk management activity and internal audit reports are escalated to the EMT and Audit Committee for review and resolution.

In 2019 risk management activity focused on the top 20 Company risks and thematic studies of key risk areas such as Sustainability, IT and Fraud Risk. This complemented the established process for the recording and management of operational risks in specialist software. This approach sought to focus the discussion and monitoring by the EMT and Directors on key risk areas. The Audit Committee was informed about the outcome of this process and steps to improve the effectiveness were defined. In addition, the risk appetite was discussed and approved by the Audit Committee and the Board.

During 2020 the focus will be on completing the establishment of an Enterprise Risk Management approach by pulling together the various risk management activities. Focus will also be given to providing management with a more incisive set of Key Risk Indicators to drive the prompt identification of, and response to changing and new risks.

Viability statement

The assessment process and key assumptions

Assessment of the Group's prospects is based upon the Group's strategy, its financial plan and principal risks. The Group's focus during 2019 has been to complete the integration process and deliver €90 million of synergies, execute the price management programme, strengthen its market position in China and India, improve working capital performance and launch the Production Optimisation Programme. These actions are expected to improve cash flow generation and liquidity, strengthen the balance sheet and create sustainable value through the disciplined allocation of capital. A financial forecast covering the next three years is prepared based on the 2020 Budget and projections for the following years. It is reviewed on a regular basis to reflect changes in circumstances.

The financial forecast is based on a number of key assumptions, the most important of which include product prices, exchange rates, estimates of production, production costs and future capital expenditure. The forecast does not assume the rollover of debt that is maturing or the raising of new debt. A key component of the financial forecast is the expected regional growth of steel production and the output of non-steel clients, combined with the development of the specific refractory consumption taking account of technological improvements.

Assessment of principal risks

The principal risks are those the Board considers may have a significant impact on the results of the Group and on its ability to achieve its strategic objectives. These are set out on pages 56 to 59.

The risks can occur independently from each other or in combination. Extraordinary events, such as the COVID-19 pandemic, have the potential to crystallise multiple principal risks simultaneously, with the effect that the impact could be significantly magnified. As a response to the current circumstances, a bespoke risk assessment was undertaken by the Executive Management Team to assess the cumulative impact and the appropriate mitigating actions.

Risk management approach continued

Assessment of viability

The assessment of viability has been made with reference to the Group's current position and expected performance over a three-year period, using forecast product prices, sales volumes and expected foreign exchange rates. The impact of the COVID-19 virus has crystallised elements (or raised the inherent likelihood) of multiple principal risks to the Group. Consequently, financial performance and cash flows have then been subjected to stress testing and sensitivity analysis over the three-year period. The Executive Management Team applied sensitivities which were informed by internal and external data sources, including a review of the Group's current production levels and short-term order book, customer feedback and review of regional macroeconomic forecasts. These data were aggregated to model a range of severe, but plausible downside scenarios for the potential impact of COVID-19 on the Group.

The scenarios tested include material reductions in demand and changes to working capital:

- Scenario A: A reduction in revenue and volumes globally for March to December 2020 by 14% compared with the outlook in February, with a reduction of 10% and 5% in 2021 and 2022. This was combined with the reduction of the benefit arising from the Sales Strategic initiatives by 80% in 2020 and by 40%-50% in 2021 and 2022. The consequential financial effects, such as the under-absorption of fixed costs and risk of increased working capital were also considered.
- Scenario B: A more prolonged impact of COVID-19 with a reduction of revenue and volumes globally for March to December 2020 by 22% compared with the outlook in February, with a further reduction of 15% and 8% in 2021 and 2022. This was combined with the reduction of the benefit arising from the Sales Strategic initiatives by 80% in 2020 and by 50% - 60% in 2021 and 2022. The consequential financial effects, such as the under-absorption of fixed costs and risk of increased working capital, were also considered.

- Scenario C: A severe outbreak of COVID 19 with a reduction of revenue and volumes globally for March to December 2020 by 31% in 2020 compared with the outlook in February 2020 (with a reduction of 55% in Q2 2020) and with a reduction of 15% and 8% in 2021 and 2022. This was combined with the reduction of the benefit arising from the Sales Strategic initiatives by 80% in 2020 and by 50%-60% in 2021 and 2022. The consequential financial effects, such as the under-absorption of fixed costs and risk of increased working capital, were also considered.

Based on the most recent available external data as described above, the Group's performance to date is substantially in line with the financial forecast used for modeling the downside scenarios and shows Scenario C is unlikely to occur. In all of the scenarios the Group maintained the necessary liquidity levels. The impact of each of the scenarios showed declining earnings, cash outflows and increasing leverage. The Board believes it can sufficiently mitigate these impacts through the introduction of broad-based cost savings initiatives, Capex and Opex saving programmes, working capital reduction measures and financing activities. The Group's current financing facilities' key covenant is that the net debt (excluding IFRS16 leases) to EBITDA ratio is beneath 3.5x. In the event of further deterioration of market conditions as a result of the COVID 19 outbreak, after mitigation measures have been implemented the Group will remain compliant with its financing covenant and will have sufficient liquidity to meet obligations when they fall due.

As at 31 December 2019, the Group has available cash resources of €467 million comprising cash and cash equivalents, as well as committed and unutilised credit facilities of €600 million. The Group has maintained similar levels of liquidity during the first quarter of 2020, including after the interim dividend payment in January 2020. The liquidity position of the Group remains robust under the downside scenarios outlined above.

Viability statement

The Directors believe that the Group is well-placed to manage its principal risks successfully. In making this statement the Directors have considered the resilience of the Group, taking account of its current position, the risk appetite, the principal risks facing the business in severe but reasonable scenarios, and the effectiveness of any mitigating actions.

The Directors have a reasonable expectation that the Group and Company will be able to continue in operation and meet its liabilities as they fall due over the period to December 2022. The Directors have determined that the three-year period to December 2022 is an appropriate period having regard to the Group's business model, strategy, principal risks and uncertainties, and viability.

The Directors believe that the abovementioned business plan and the conducted risk analysis provide evidence of the viability of the business over the next three years and no material risk that could endanger the viability or continuity of the business.

Link to strategy



Competitiveness



Business model



Market



People

Appetite



Averse









Minimalist









Cautious



Flexible

	Principal risk	Example of risks	Actions taken by management
1. Macroeconomic environment and condition of customer industries leading to significant sales volume reductions Link to strategy  Target risk appetite 	<p>Changes in the global economic environment and adverse political developments may have an impact on the Group's revenue and profitability.</p> <p>The macroeconomic environment changes leading to sales volume reductions can arise from industrial factors or from wider global issues such as a pandemic.</p> <p>The demand for refractory products is directly influenced by steel production, the investment climate, metal and energy prices and the production methods used by customers. Changes in international trading relationships, the application of tariffs and evolution of trade treaties can markedly impact the Group's ability to sell to certain markets.</p> <p>Due to the Group's cost structure, fluctuations in sales volume have an impact on the utilisation of the production capacities, and consequently on the Group's profitability.</p>	<ul style="list-style-type: none"> Decreasing investment in infrastructure projects (therefore reducing steel and cement demand) leading to lower refractory consumption and lower sales volumes Customers focusing on lower cost products Lower sales volumes leading to lower fixed cost coverage 	<ul style="list-style-type: none"> Diversification in terms of geographies and industries Optimisation of the production network through complexity reduction and efficiency increases Delivering reductions in SG&A costs Re-focus of strategy to products and markets with growth potential
2. Raw material prices drop sharply, fluctuations in exchange rates and energy prices Link to strategy  Target risk appetite 	<p>The Group has invested significantly and achieves competitive advantage through its backward integration model — the resulting benefits and competitive advantage are reduced in periods of low raw material prices.</p> <p>Low raw material prices can cause a reduction of sales margin.</p> <p>Due to the Group's global sales and production activities, revenue and profitability may be impacted by currency fluctuations, which can be caused by many factors.</p> <p>The Group's production processes rely on high volumes of energy consumption.</p>	<ul style="list-style-type: none"> Increasing volatility of revenue and profit Loss of competitiveness of operations Increasing price pressure and loss of margin 	<ul style="list-style-type: none"> Active balance sheet and exposure management Developing a more agile business with lower fixed cost base and integrated business planning Improvement of energy efficiency
3. Inability to execute key strategic initiatives Link to strategy  Target risk appetite 	<p>The Group's strategy includes numerous strategic initiatives including sales expansion, new product and service models, network optimisation, digitalisation and M&A projects.</p> <p>The failure to effectively execute these initiatives because of external or internal circumstances may lead to lower than planned financial performance including loss of revenue and margin.</p> <p>The Group is dynamic with a large appetite for continual improvement — the inherent capability limitations to deliver change require effective prioritisation and alignment between strategy and execution</p>	<ul style="list-style-type: none"> Failure to develop the strategy into specific actions Failure to react in a timely manner to a changing environment Resistance to change Failure to ensure Group has capability to deliver the strategy 	<ul style="list-style-type: none"> Group-wide refresh and communication of a simplified, more focused and prioritised strategy Strengthening of project management culture and approach Active postponement or cessation of non-strategically important projects Leadership directives to accelerate project delivery and take appropriate risks to deliver the strategy

Risk management approach continued

	Principal risk	Example of risks	Actions taken by management
4. Significant changes in the competitive environment or speed of disruptive innovation Link to strategy  Target risk appetite 	<p>Customer demand for environmental features, digitalisation and services may evolve more quickly than expected.</p> <p>Increasing focus on digitalisation and services may lower the entry barriers for existing and new competitors.</p> <p>Depending on the capacity of the Group to develop adequate products and services, this may present either an opportunity or a threat by increasing pressure on demand and margins.</p>	<ul style="list-style-type: none"> Disruptive product technology introduced by a competitor Disruptive production process introduced by a competitor Competitors being more agile and faster to respond to changing customer requirements 	<ul style="list-style-type: none"> Create a climate allowing innovation and "out of the box" thinking establishment of fast-acting local R&D structure in all major markets Continued investment in R&D focus development activity on "speedboat" projects aimed at agile and fast impact on the market
5. Business interruption and supply chain disruption Link to strategy  Target risk appetite 	<p>As a production company, the Group is exposed to business interruption risk resulting from events including natural catastrophes, pandemics, fire, machinery breakdown, supply chain disruptions or cyber-attacks. The Group relies on a small number of production sites or a small number of external suppliers for certain materials.</p> <p>The inability to produce or supply those materials may have a significant impact on the Group's capacity to produce and deliver its products.</p> <p>The Group has an integrated global supply chain so global operations can be interrupted by issues in a specific geography.</p>	<ul style="list-style-type: none"> Production interruption at single source manufacturing site Failure of single source supplier Natural disaster or major political crisis at one or several manufacturing sites or in one region Loss of mining rights 	<ul style="list-style-type: none"> Diversified production network in terms of geographies Implementation of an optimized production footprint to meet planned requirements Establishment of a best in class integrated supply chain Operational risk management and maintenance policies Risk based investment policy Global insurance coverage
6. Sustainability — Environment risks Link to strategy  Target risk appetite 	<p>Controlled emissions and usage of potentially hazardous materials are inherent to the production of refractory products.</p> <p>The risk of failing to meet environment regulatory targets or uncontrolled emissions at our production sites exists and may result in high financial losses and liabilities.</p> <p>The changing regulatory environment and the Group's commitment to Sustainability lead to increasing investment and effort being dedicated to achieve environment aims.</p> <p>There are future environment targets which can only be met by the Group continuing to find new technological solutions to change production processes.</p> <p>The Group is heavily dependent on Environmental improvements being delivered by suppliers and customers to reduce the overall impact of the Group's activities.</p>	<ul style="list-style-type: none"> Uncontrolled emissions Inability to meet sustainability targets 	<ul style="list-style-type: none"> Recycling strategy Regular environmental audits and risk monitoring at all sites Establishment of Board Level Sustainability Committee supported by focused management efforts

	Principal risk	Example of risks	Actions taken by management
7. Sustainability — Health & Safety risks Link to strategy  Target risk appetite 	<p>Especially at our production sites, employees and contractors may be exposed to Health & Safety hazards which cannot be completely eliminated.</p> <p>Our activities and products may potentially cause accidents at our customers sites.</p> <p>Beyond the harm to individuals a Health & safety incident can lead to high financial penalties, site closure and a loss in reputation for the Group.</p>	<ul style="list-style-type: none"> Fatal or serious accident at manufacturing or customer site 	<ul style="list-style-type: none"> Health & Safety objectives defined as core Company objective Health & Safety being top agenda item at all Group meetings Health & Safety approach based on leading global standards and practices Collaboratively enhancing the Health & Safety approach at customer and supplier sites Greater emphasis on "near miss" reporting and root cause analysis Regular risk monitoring at all site Specific action plans in the event of Health issues (eg pandemic)
8. Regulatory and compliance risks Link to strategy  Target risk appetite 	<p>We strive to establish a culture of compliance throughout the organisation however we face increasing regulatory complexity.</p> <p>We are exposed to regulatory and compliance risks which may result in financial losses or operational restrictions.</p> <p>Regulatory changes could impact the profitability of our operations and require investment to achieve compliance.</p>	<ul style="list-style-type: none"> Failure to act in accordance with our "Code of Conduct" Violation of anti-corruption law by employees or third-party representatives Violation of data privacy regulations 	<ul style="list-style-type: none"> Ethical values supported by strong corporate culture Code of conduct and compliance policies and procedures Strengthen capability of compliance department Enhancement of global training and documentation of compliance matters
9. Cyber and information security risk Link to strategy  Target risk appetite 	<p>Our growth strategy (including mergers and acquisitions, entries into new geographies, the design of new products and digitalisation) results in a growing cyber and information security risk exposure.</p> <p>There is a fast evolving cyber and information security global threat landscape.</p> <p>The possible impact of cyber and information security risks could range from operational disruptions, loss of intellectual property, legal compliance issues / frauds, or significant reputation losses.</p>	<ul style="list-style-type: none"> Intellectual property or confidential data breach Personal/Private data breach Customer or Supplier data breach Critical business process interruption Loss of (user) productivity Loss of trustworthiness of data Loss of proofing capability 	<ul style="list-style-type: none"> Dedicated Information Security organisation with capability regularly re-assessed against threat level Global Information and Cyber Security Policies Continuous awareness campaign and training Regular risk assessment and penetration testing Cyber security detection and response team Data classification and protection implementation
10. Product Quality Failure Link to strategy  Target risk appetite 	<p>The Group value proposition is fundamentally based on a high-quality product performing to agreed specifications</p> <p>The Group's products have to demonstrate consistent high performance in challenging environments</p> <p>The Group can suffer both reputational and financial loss should the product quality level not meet required standards</p> <p>The transition to a more agile production network entails significantly more production transfers between factories with each transfer requiring specific attention on product quality</p>	<ul style="list-style-type: none"> Failure of product at a customer incurring consequential loss Loss in reputation for high quality Financial reparation for product quality failures 	<ul style="list-style-type: none"> Specialist quality management teams and quality management system covering all production Quality testing of products at all stages of production Exhaustive testing of new products Re-fresh and enhancement of procedures for transfer of production between factories
11. Inconsistent demonstration of RHIM culture, values and related behaviours Link to strategy  Target risk appetite 	<p>The merged company has placed a high emphasis on trust, empowerment, delegation, leadership, accountability, integrity and pragmatism as core behaviours within the new corporate culture.</p> <p>The embedding of the new company culture is a significant change journey and represents a significant difference in the working style for many colleagues from both legacy entities.</p> <p>New initiatives are designed and deployed relying on the foundation of the new corporate culture and effective corporate governance.</p>	<ul style="list-style-type: none"> Inconsistent behaviours across the group Persistent behaviour in line with legacy cultures Lack of awareness of Corporate Governance expectations Understanding that some legacy behaviours and decisions to be re-visited and re-assessed Inherent difficulty of aligning c.13,650 people across all continents and many countries 	<ul style="list-style-type: none"> Phased roll out of new culture in a multi-year, multi-initiative programme Global network of culture champions Dedicated leadership capability enhancement programme Management, compliance and Internal Audit reviews "Tone from the Top" leadership for the culture

RHI Magnesita stakeholder index



Shareholders

We aim to consistently deliver shareholder value through our capital allocation policy, investment decisions and through the delivery of robust financial performance.



Customers

In order to maintain our position as the global refractory leader, we must continue to deliver a valuable service and high-quality products to our customers. We act on customer feedback, and through the Innovation hub, are continuously updating our service and product offering to meet our customers' needs.



Employees

Our people are our most important resource, and at the heart of everything we do. From researchers in R&D, to our sales teams, to production staff, to our supply chain team — they all play an important part.



Environment

We recognise the need for the Company to act as a good global citizen. It is in the Company's interest and in our stakeholders' interest to create a sustainable business model.



Communities

We are considerate of the communities that surround the Company footprint, and try to foster social value, local employment, and reduce any negative impact on the environment from its operations.



Supply chain

We rely on our suppliers to deliver services and materials, and the availability of these goods impact how we operate as a company. Not only do we want to make sure that we can ensure delivery on demand, but we also want to make sure that we are part of a sustainable supply chain.

RHI Magnesita's vision is to help shape today's world for tomorrow's future, and our influence touches all areas of modern life.

RHI Magnesita aims to lead the refractory industry in a sustainable fashion, for the benefit of its customers, communities, employees, suppliers and investors. Its purpose is to shape the world in a sustainable way, contributing to socio-economic development and supporting prosperity. As part of this ambition, key stakeholders remained central to the Board's discussions and decision-making over the course of 2019.

As a Dutch incorporated entity, the Company applies Dutch law as its primary legal framework. As a UK listed entity, it complies with the UK Corporate Governance Code which directly references section 172 of the UK Companies Act 2006. The Company agrees with the importance placed on stakeholders in the UK Code and the wider corporate landscape, and as such has decided to take the opportunity this year to provide more detail on how the Board engages with our stakeholders, in alignment with Section 172. Effective engagement with the Company's stakeholders is integral to the successful delivery of the 2025 Corporate Strategy, and for the long-term success of RHI Magnesita.

In making decisions, the Board considers views from across all key stakeholder groups as outlined below:

Employees

The Board's two Employee Representative Directors provide an effective direct voice in the boardroom on a range of matters, particularly those which impact the workforce.

There have been many opportunities for engagement and discussions with the various sectors of the workforce throughout the year, and you can read more about the Board activities in this area on page 78. Such activities included visits to Brumado and Contagem in Brazil, where Directors met local management and plant employees, toured a mine, visited an R&D centre and also Gerdau's site on a customer visit. This allowed the Directors to experience first-hand the culture of the operations and the local opportunities and challenges.

During 2019, the Board also visited our administration office at the Contagem site which helped to inform a later request to the Board for improvements. The office was deemed to be unsatisfactory compared to Company standards and the Board approved the capital required for the updated facility, to create a positive work environment, improve well-being and morale, and improve the ability to recruit.

Shareholders

David Schlaff and Stanislaus Prinz zu Sayn-Wittgeinstein both represent shareholders through their position on the Board, and as such they provide an investor perspective to the management team and challenge the Company to deliver to the agreed objectives, to contribute to the long-term and sustainable success of the Company.

Additionally, the Investor Relations department in London regularly engages with both current and prospective investors, as well as equity analysts through roadshows and conferences. The perspectives of shareholders and market analysts are well represented at Board meetings with reports from the Investor Relations Team and coverage from a variety of analysts. The Directors often carefully consider the reaction of the markets in their deliberations on various matters, particularly those relating to results.

During 2019, the Board made the decision to take a secondary listing on the Vienna stock exchange (Wiener Börse). Additional benefits to shareholders included greater liquidity, and longer periods of trading. Furthermore, as a result of the UK's exit from the European Union, there appeared to be a risk that the Company and its shareholders, in certain circumstances, would lose the protections provided by the UK Takeover Code and any takeover of RHI Magnesita N.V. would therefore be effectively unregulated. The secondary listing on the Vienna stock exchange, as a regulated market in European Economic Area, meant this unregulated scenario could never arise.

In 2019, the Board resolved to approve the declaration of an interim dividend of €0.50 per share, being a total aggregate payment of €25 million in January 2020. The long-term dividend policy considered in great detail the expectation of the investors and the impact on the value of the Company.

Furthermore, a key focus for the Board, with reference to investors, is financial performance and with this in mind, the Board challenged management to reduce costs, whilst focusing

capital expenditure on projects with short payback periods and good returns, in order to deliver a robust financial performance in 2019. Ultimately, the Board recognises that good financial performance underpins the basis of performance for a variety of different stakeholders and takes these decisions for the benefit of all stakeholders.

Environment

The Corporate Sustainability Committee was established by the Board to address the increasing focus on sustainability, including addressing key issues around the Company's environmental impact, recognising the role the Company has to play in leading the way in its industry.

The Corporate Sustainability Committee, along with the CEO and the Executive Management Team, are regularly updated by the Sustainability Steering Committee which is constituted of personnel across the different areas in the business which intersect with sustainability including research & development, health & safety, and corporate communications, amongst others. This cross-functional body of senior management is responsible for driving progress against key objectives and targets to embed sustainability throughout the business. In order to do this, it regularly seeks feedback from key stakeholders on matters of Environmental, Social and Governance ("ESG") matters.

In the 2018 Annual Report, details were provided of sustainability targets to be achieved by 2025 and the Committee has a responsibility to oversee progress against each of these on behalf of the Board. One of its first decisions was to increase the CO₂ reduction target from 10% to 15% to include Scope 1, 2 and 3 (raw materials) CO₂ emissions, challenging management to find technological and process-driven routes to reduction. The Corporate Sustainability Committee reports into the Board on its activities and ensures due focus is given to matters of ESG, drawing on the members' discussion within the Sustainability Committee. The influence of this increased focus can be seen in the Board decision to transport sintered dolomite via railway as outlined in the paragraph below.

Communities

During 2019, the Board considered the impacts of its decision to construct a new Dolomite Resource Centre in Europe, in the Hochfilzen site in Tyrol, on the surrounding community including customers, landowners, residents' local authorities and employees. Impacts considered included economic benefits, disruption during the construction of the centre and supply to customers. Tyrolean Governor Günther Platter highlighted how the population in Tyrol would benefit from the safeguarding of jobs. In addition to creating a Dolomite Centre of Excellence, the Board opted to transport the sintered dolomite sustainably with a railway, instead of using trucks. Herbert Cordt commented: "This step towards sustainability shows that we take responsibility for the communities in which we operate. We consider ourselves part of society and therefore have to contribute our share. This not only applies to Hochfilzen but is also in line with our global corporate approach."

Customers

In 2019, the Board has also had the opportunity to meet customers in its key market areas, including Gerdau in Brazil, and the Directors have directly observed the interaction between management and their customers. The Company's Net Promoter Score is also considered at Board meetings and is regarded as a good proxy for the Company's engagement with its customers. This input brings customer priorities to the forefront of considerations and the Board utilises it to challenge management accordingly to meet customers' expectations.

Supply chain

The Board did not make any significant decisions about our suppliers or the supply chain this year, however, in 2020 it looks to implement a more sustainable business, and ensure that suppliers of the Company act responsibly. They will be supported in this by the work of the Corporate Sustainability Committee and it will also be in conjunction with the review of processes for the Modern Slavery Act and the California Transparency in Supply Chains Act.

Sustainability Governance

The planet is facing a climate and ecological crisis. In 2019, greenhouse gas emissions reached an all-time high, with almost every country failing to meet their Paris commitments. Furthermore, the world's population continues to grow and is projected to reach 10 billion by 2050.

The continued decline in global poverty rates is welcome, although rising living standards place the planet's resources under greater pressure. These interrelated economic, social and environmental challenges are addressed by the UN Sustainable Development Goals ("SDGs"), the global blueprint for people, planet and prosperity. Business is a vital partner in achieving these goals.

RHI Magnesita plays a small but critical role in shaping a sustainable future. Refractories are instrumental in developing the infrastructure required by new and larger cities: new housing, offices, schools, hospitals and transport systems. As the global leader in refractories, we have a responsibility to lead the industry in sustainability.

In 2019, we deepened our focus on sustainability, climate action in particular. Driven by our Board and led by our Executive Management Team, we engaged widely with stakeholders, investigated risks and opportunities, and agreed an ambitious strategy with targets to 2025.

The following chapters address our approach to sustainability, or ESG (environment, social, governance). In this chapter, we describe our governance of sustainability. Next, we discuss our approach to climate and environmental challenges (Climate and Environment, page 65), then how we are addressing social impacts (People and Communities, page 69).

Sustainability strategy

Our sustainability strategy supports and is integral to RHI Magnesita's overarching strategy. We must ensure that the Company is on a sustainable growth path and able to succeed in a low-carbon and resource-constrained economy. As RHI Magnesita expands geographically, we must also ensure that we are a valued employer, business partner and member of all communities in which we operate. Sustainability needs to be at the heart of our business; it must become simply part of who we are and how we do business.

Material issues and targets

In 2019 we conducted a follow-up stakeholder consultation to confirm the sustainability issues that are material to our business.

The issues identified by internal and external stakeholders to be most material are:

- climate and energy;
- health & safety;
- diversity;
- recycling; and
- NOx and SOx emissions.

Eco-Vadis rating

Silver

	Targets by 2025 versus 2018	Progress in 2019
CO ₂ emissions	Reduce by 15% per tonne of product (Scope 1, 2, 3 (raw materials))	Reduced by 5%
Energy	Reduce by 5% per tonne product	Energy efficiency projects implemented; savings not yet seen due to softer production volumes
NOx and SOx emissions	Reduce by 30% by 2027 (vs 2018), starting with China by 2021	Achieved in all pre-existing China sites – under implementation in Chizhou plants
Recycling	Increase use of secondary raw materials to 10%	Secondary raw materials accounted for 4.7% in 2019
Diversity	Increase women on our Board and in senior leadership to 33%	Board: 23% female EMT & direct reports: 17%
Safety	Maintain LTIF at <0.5 (goal: zero accidents)	Achieved LTIF of 0.28 in 2019



For each of these issues, we have set targets and report progress towards achieving them see Targets on page 62. In addition, we also work on other issues that, although less material, are still important to us and our stakeholders. These are:

- water usage;
- forests and biodiversity;
- sustainable supply chain;
- community investment;
- human rights; and
- anti-corruption.

Engaging with stakeholders

Listening and learning from stakeholders is fundamental to a successful and sustainable business.

In addition to our stakeholder consultation, we continued to expand our engagement on sustainability in 2019.

Read more about our stakeholder engagement on pages 65 and 66.

Shareholders

We are actively engaged with the investment community around our sustainability agenda, as demonstrated at our Capital Markets Day in 2019. RHI Magnesita is rated Prime (C+) by ISS ESG rankings and Silver by Eco-Vadis.

External initiatives and ratings



Customers

Working with customers, we develop solutions that support their climate action plans. Examples include our innovative coatings technology to improve customer energy efficiency, low-carbon bricks and recycling services. We also work with customers in cross-industry partnerships, such as the K1-MET project to develop syngas from waste gas streams rich in CO₂.

Employees

Engaging with employees is a critical part of developing our new culture. During 2019, our leaders continued to hold townhall meetings across our business. They also worked with our network of over 60 culture champions who engage our employees across our business. In 2020, culture champions will include diversity as a key theme for activities. In addition, our inaugural women's network is helping to shape our gender diversity agenda. We also introduced a sustainability category into our Global Awards to recognise the most outstanding sustainability initiatives across our business.

Suppliers

We are extending sustainability programmes to include our supply chain. We have expanded our carbon emissions reduction target to include Scope 3 emissions for raw materials. RHI Magnesita is also engaging suppliers on safety requirements and our Supplier Code of Conduct.

Communities

As our business expands globally, we are extending our community programmes. By working with local communities and partners, we aim to support local needs and aspirations.

In addition, we increasingly work in multilateral partnerships with these stakeholders and others to address sustainability challenges. For example,

we are engaged in partnerships with universities, research institutions, start-ups, open innovation platforms and industry associations to identify and develop low-carbon technologies. In 2019, we joined the European Cement Research Academy (ECRA) and entered into new partnerships with Imperial College London and the Federal Universities of Minas Gerais and São Carlos in Brazil.

Sustainability governance and management

Our sustainability strategy and activity is overseen by the Corporate Sustainability Committee. This Board Committee identifies key sustainability risks and opportunities, sets the strategy, establishes key objectives and targets and reviews progress. The Committee, which meets quarterly, is chaired by independent Non-Executive Director Janet Ashdown.

The Corporate Sustainability Committee, CEO and Executive Management Team are regularly updated by the Sustainability Steering Committee. This cross-functional body of senior management is responsible for driving progress against key objectives and targets and embedding sustainability throughout the business.

Integrated management system

Our integrated management system covers environment (ISO 14001), occupational health and safety (moving to ISO 45001 from OHSAS 18001) and quality (ISO 9001). In 2020, we will conduct a central audit as a basis for IMS matrix certification.

To ensure that our environmental data is robust, in 2019 we commissioned an independent third-party assessment of our data collection and developed an environmental roadmap based on findings.

Sustainability Governance continued

Standards and reporting

Our approach is underpinned by the UN Global Compact, the world's largest corporate sustainability movement in support of the UN Sustainable Development Goals. As participants, we must integrate human rights, labour rights, environment and anti-corruption principles into our business strategy and operations. We must also map how our core business and community investment programmes can best support the SDGs.

Other initiatives we participate in or support include:

Climate — In 2019, we made our first climate submission to the CDP (formerly the Carbon Disclosure Project).

Diversity — We report our progress in increasing female leadership to the Hampton-Alexander Review.

Anti-corruption — We support Transparency International, the global anti-corruption movement.

Community investment — We are members of LBG (formerly London Benchmarking Group) and use this global standard for measuring corporate community investment.

Sharing our progress in an open and transparent way is key to engagement and progress. In this report, we focus on material issues which, together with the GRI Content Index on our website, comprises our GRI report.

This report was prepared in accordance with the GRI Standards (Core option) and represents our Communication on Progress (CoP) to the UN Global Compact (self-assessed as Active).

Ethics and compliance

We must hold ourselves accountable to the highest standards of corporate behaviour. This is fundamental to being a responsible business.

Anti-bribery and corruption

Bribery and corruption have no place in our business or any business. Our Code of Conduct, which can be found on our website, makes clear our zero-tolerance approach to corruption. We expect our employees and business partners to fully comply with anti-bribery and corruption laws wherever we operate.

To keep step with our business growth, we are expanding our compliance organisation with new compliance specialists in South America, Europe and India. We are also strengthening our processes and monitoring. During 2019, we continued compliance training in South and North America, Europe and India. More than 2,000 employees took part in face-to-face training. In addition, Internal Audit conducted audits of our approach to anti-bribery, corruption and data protection, assessing our compliance organisation's training, monitoring and reporting. In 2020, we will continue to strengthen our approach, with the launch of our digital compliance portal and a new series of detailed compliance policies.

We also expect suppliers to uphold the values in our Supplier Code of Conduct and in 2020 we will launch an annual certification process. Our Codes of Conduct can be found on our website.

Human rights

We are committed to respecting internationally recognised human rights, in line with the UN Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights. As participants in the UN Global Compact, we must bring this commitment to life in our business, supply chain and beyond.

Human rights provisions are explicitly included in our Supplier Code of Conduct. We are developing a more rigorous approach to supplier assessment, with digitalisation helping to strengthen our compliance systems. Statements in accordance with the UK Modern Slavery Act 2015 and the California Transparency in Supply Chains Act can be found on our website.

Whistleblowing hotline

Potential concerns about our business or any suspected wrongdoing can be reported to an independently operated, confidential and anonymous whistleblowing hotline. Contact details are publicised throughout our business and on our website. Any suspected code violations are managed by a team comprising compliance, HR and Internal Audit. The Board routinely reviews this process and reports arising from its operation, ensuring that there are arrangements in place for the appropriate independent investigation of these cases and follow-up actions are completed.

In 2019, we received 79 reports most of which continued to be HR-related grievances. We were able to address many of these issues in culture workshops and Compliance training sessions. A further breakdown of reports is included in the Audit Committee report on pages 93 to 95.

2,000+

Employees received in-person Code of Conduct training

Climate & Environment

The severity and urgency of the climate crisis became increasingly clear in 2019. The global economy needs to rapidly reduce carbon emissions, halving them by 2030 and reaching net-zero by 2050.



Climate governance and risk

During 2019, the Board and senior leadership of RHI Magnesita were focused on accelerating our Company's climate action. The Company completed an in-depth assessment of climate risks our business faces, including physical risks (extreme weather events, disruption to operations and supply chain) and transitional risks (current and emerging regulations, technology, marketplace and reputation).

Since climate risk is now a major concern to investors, we undertook our first climate submission to the CDP (formerly the Carbon Disclosure Project) in 2019, gaining a C rating. In addition, we are exploring how to implement the recommendations of the Taskforce on Climate-related Financial Disclosures ("TCFD") (see table).

During 2019, we revised our emissions reduction target, almost doubling it by including Scope 3 emissions from raw materials. Our new commitment is to reduce Scope 1, 2 and 3 emissions (raw materials) by 15% by 2025 while improving energy efficiency by 5%. We are also investigating how RHI Magnesita could adopt a Science-Based Target for emissions reduction that is aligned with the latest climate science.

In 2019, our CO₂ emissions totalled 4,622,000 tonnes (Scope 1, 2 and 3 — raw materials), equivalent to 1.65 tonnes per tonne of production. This marks a 5.0% reduction in emissions per tonne of production and a 14.0% decrease in absolute emissions, although softer production volumes contributed to this. Softer production volumes also impacted energy consumption, which dropped by 9.1% to 5.2 TWh in 2019. New energy efficiency projects were launched during the year but did not yet yield improvements, with energy efficiency down 0.3%. In future, these projects are expected to save up to 61 GWh per year.

Implementing the TCFD Recommendations

Governance	<ul style="list-style-type: none"> The Sustainability Steering Committee works with the Executive Management Team and CEO to assess climate risks and opportunities and develop and implement climate strategy. The Board Sustainability Committee regularly reviews climate risks, strategy and performance.
Risk Management	<ul style="list-style-type: none"> Key climate risks are disclosed in our submission to the CDP, which gained a C rating in 2019. Risks include physical risks (extreme weather events, disruption to operations and supply chain) and transitional risks (current and emerging regulations, technology, marketplace and reputation). Key opportunities include recycling and offering customers full-service solutions, as well as potential opportunities that could result from capturing and managing process emissions. We continuously monitor and review our approach given the uncertainties and speed of change in the area of climate risk.
Strategy	<ul style="list-style-type: none"> Provide innovative solutions to help customers reduce their carbon emissions and increase their operational efficiency. Decrease the carbon footprint of our raw materials. Increase the energy efficiency of our operations. Reduce the carbon intensity of our energy sources.
Metrics and Targets	<ul style="list-style-type: none"> Our target is to reduce Scope 1, 2 and 3 emissions (raw materials) per tonne by 15% by 2025. We measure our carbon emissions using the GHG Protocol.

Climate & Environment continued

Our CO ₂ Emissions	Absolute Emissions (tonnes of CO ₂)			Relative Emissions (t CO ₂ per tonne of product)		
	2019	2018 (base year) ²	Change vs 2018	2019	2018	Change vs 2018
Scope 1 ¹	2,275,000	2,629,000	-354,000	0.81	0.85	-4.5%
Of which geogenic emissions	1,194,000	1,413,000	-219,000	0.43	0.46	-6.7%
Of which fuel-based emissions	1,051,000	1,165,000	-114,000	0.37	0.38	-0.4%
Scope 2	190,000	207,000	-17,000	0.07	0.07	1.3%
Scope 3 (raw materials)	2,157,000	2,536,000	-379,000	0.77	0.82	-6.1%
Total	4,622,000	5,372,000	-750,000	1.65	1.74	-5.0%

¹ Scope 1 emissions consist of geogenic emissions, fuel-based emissions and other emissions (e.g. emissions from traffic/machinery, heating of office buildings at production sites).

² The value of Scope 1 CO₂ emissions for 2018 has been revised upward since publication of the 2018 Annual Report due to the improved availability of more granular data and analysis.

Climate strategy

Our climate strategy spans our value chain and includes the following components:

- providing innovative solutions to reduce customer emissions;
- decreasing the carbon footprint of our raw materials;
- increasing energy efficiency in our operations; and
- reducing the carbon intensity of our energy sources.

Innovative customer solutions

The steel and cement industries represent approximately 80% of our customers. They are also major carbon emitters, accounting for up to 13% of global emissions. Helping them improve energy efficiency in production with the associated drop in emissions could potentially achieve a significant reduction in our indirect emissions.

To do so, we are developing innovative technologies and transforming our business model. New full-service solutions that can significantly improve customers' energy efficiency in production and reduce associated carbon emissions include:

- recycling services that help customers optimise production, increasing energy and resource efficiency;
- working with customers to reduce consumption by extending the life of refractories;
- coating technologies that improve refractory performance and energy efficiency in customer production processes;

- digital solutions such as our Automated Process Optimisation (APO) that can reduce energy-intensive stoppages and optimise production; and
- helping customers digitise operational control to increase productivity and energy savings.

Reducing raw material emissions

Geogenic emissions from raw materials represented 48% of our carbon emissions (Scope 1 and 2) in 2019. Carbon dioxide (CO₂) is released when the raw magnesite (MgCO₃) is processed into magnesium oxide (MgO), the basis for many refractory products.

These process emissions represent another major focus area of R&D investment, especially increasing recycled content in our refractories since this reduces the geogenic emissions associated with virgin materials.

In 2019, we significantly increased the recycled content in products with our new series of low-carbon bricks and expanded our global recycling capacity (see Recycling below). Reaching our target of 10% recycled content will mitigate approximately 300,000 tonnes of CO₂ emissions per year.

As we endeavour to reduce the carbon footprint of our raw materials, we work with others to develop breakthrough technologies. Such partnerships include the European Cement Research Academy ("ECRA") and the K1-MET consortium which includes steel manufacturers.

In addition, we are setting up research partnerships with universities and other partners, including accelerators, start-ups and open innovation platforms to identify and develop new technologies. In 2019, we set up a national CO₂ research network of universities and businesses in Brazil and entered into a research partnership with Imperial College London.

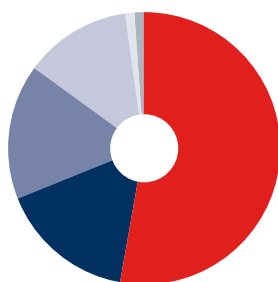
5%

Total CO₂ emissions reduction in 2019
(Scope 1, 2, and 3 – raw materials)

15%

2025 target reduction vs 2018
(Scope 1, 2, and 3 – raw materials)

Energy use by source



■ Natural gas	53%
■ Coal, coke & petcoke	16%
■ Fuel oil	16%
■ Electricity	13%
■ Diesel/petrol	1%
■ Liquid gas	1%

Reducing the carbon intensity of energy

We are assessing our potential to reduce Scope 2 emissions from electricity consumption. At present, our electricity consumption averages 278g CO₂ per kwh.

We aim to increase the proportion of renewables in our energy mix through both on-site generation and purchasing. For example, our Leoben R&D centre in Austria implemented its first PV solar system in 2019. This already covers the site's base electricity consumption and will be further expanded.

We intend to source renewable energy for production too and are exploring the possibilities for each site. In Brazil, our Brumado production site is assessing a Power Purchasing Agreement for wind power. All of our Austrian sites are already supplied by 100% certified renewable electricity.

Nevertheless, as things stand, we cannot use renewables as our primary source of energy, given the high temperatures and quantities required by our business. Our production sites therefore still depend on carbon-intensive fossil fuels. Switching to alternatives is a highly challenging transition which we continue to actively explore. Where feasible, we are moving from petroleum coke and oil to natural gas, the cleanest fossil fuel, although location plays a part in availability. In 2019, gas accounted for 53% of fuel used by our business.

Increasing energy efficiency

In our own operations, we are pioneering new production techniques to improve energy efficiency. Innovative technologies now allow us to dry pre-cast shapes for 2.5 hours rather than the traditional five days. In addition, we can now achieve the same performance from refractory bricks tempered at 200°C that was previously possible only by firing at temperatures exceeding 1,500°C. Additional investments include the recovery of waste heat by our Dalian site which in 2019 reduced the site's energy consumption by more than 5 GWh.

These initiatives are expected to save up to 61 GWh per year, equivalent to more than 1% of our energy consumption in 2019. We are also exploring how we could reduce emissions from transportation. For example, our Hochfilzen plant will start supplying finished products by rail which will avoid approximately 3,000 truck trips per year.

Recycling

Our recycling strategy has two vital aims, reducing both our carbon emissions (see above) and landfilled waste. Our target is to include 10% Secondary Raw Materials ("SRM") in refractories by 2025 which would prevent approximately 150,000 tonnes of material from going to landfill. We are on track to reach this target, having increased recycled content in our products by 1% in 2019.

During 2019, we made solid progress in all three key elements of our recycling strategy:

- establishing on-site recycling solutions for used refractories at customer sites;
- setting up recycling facilities at our own production sites; and
- developing recipes that include recycled content in a wide array of products.

Examples of our progress in 2019 include:

- In North America, we launched our first on-site customer recycling solution.
- In South America, we expanded our recycling capacity with a new semi-automated recycling operation in Coronel Fabriciano. Meanwhile, further investments in Contagem allowed us to boost recycled content in our products.
- In Europe, we opened our first dedicated recycling facility in Veitsch, Austria.
- In India, our new production facility in Cuttack has on-site recycling operations.
- In China, we increased use of recycled materials and started our own recycling activities to ensure a local source of recycled materials.

As we increase the amount we recycle, we work to reduce waste. During 2019, the waste generated by our business amounted to 107,000 tonnes. Most of this waste (83%) was non-hazardous ceramic and mineral waste from production sites and mines. We have therefore established waste teams in priority plants to identify how to maximise the reuse or recycling potential of production waste.

Climate & Environment continued

NOx and SOx emissions

Our programme to reduce emissions of nitrogen oxides (NOx) and sulphur oxides (SOx) is progressing well. We are targeting a 30% reduction and during the first phase in China, we achieved this for pre-existing plants in 2019, with new Chizhou plant to follow in 2020. Our next focus is to achieve the same in our US business by 2025, followed by Europe and South America by 2027.

Protecting biodiversity

We recognise that biodiversity is essential to life and acknowledge its alarming and rapid loss across the world. Deforestation is of particular concern since forests play a critical role in mitigating climate change. We take a regenerative approach to areas we mine, restoring them to their original state through re-cultivation and reforestation. In 2019, activities included:

- In Brazil, we grew 26,000 native saplings in our Brumado tree nursery and planted 6,000 on our land, donating more than 12,500 saplings to local communities.
- In Turkey, our Eskişehir site's annual tree-planting saw approximately 500 employees, contractors and members of the local community plant more than 2,000 trees on neighbouring land to our mine and production site in 2019. To date, we have planted 193,650 trees in Turkey.
- In Germany, employees at our Niederdollendorf site planted 2,000 trees in nearby Siebengebirge natural park and provided a further 2,000 to the local conservation partner.

We also promote biodiversity on our sites. In Germany, our Marktredwitz plant was recognised by the local Ministry of the Environment for commitment to species and insect protection in 2019. Named a Blossoming Business (Blühender Betrieb), the plant has designed its outdoor space in ways that promote biodiversity, planting bee-friendly shrubs, hedges and meadows, avoiding chemical pesticides and peat-containing substrates.

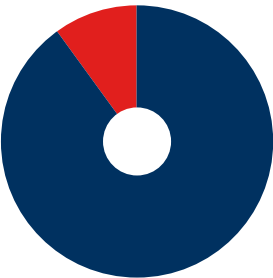
Water

We aim to minimise our use of water and improve our water efficiency, especially in areas which already experience scarcity. Although the refractory industry is not water-intensive in comparison to other sectors, we recognise the growing issue of water scarcity and its links to the climate crisis.

In 2019, we assessed the locations of all production sites for water scarcity using the WWF Water Risk Filter and other tools. Results indicated that 10 sites operate in regions of Mexico, Brazil, India, China and France where water scarcity is, or might soon become, a risk. Next, we will assess water consumption at these sites to identify potential risks both to our operations and local watersheds and develop mitigation plans. In India, for example, we have completed a feasibility study into rainwater harvesting.

During 2019, RHI Magnesita used 14.8 million cubic metres of water, of which 1.5 million cubic metres was consumed in water-scarce areas.

Water consumption



- Water consumption in non-scarce areas 90%
- Water consumption in water scarce areas 10%

Target for recycled content by 2025

10%

90%

Water consumption in non-scarce areas

People & Communities

As our business grows, we must bring a positive social impact wherever we operate, both as an employer and a neighbour. Within our business, we aim to help over 13,650 employees achieve their potential; beyond our own business, we aim to partner with our communities, helping them develop resilience and thrive.



Building a strong culture is essential to our long-term sustainability and success. The foundations of our new corporate culture have now been laid, with a focus on its four key themes:

- act customer-focused and innovatively;
- have open decision making in a respectful environment;
- operate cross-functionally, collaboratively and pragmatically; and
- be performance-driven and accountable.

Since our merger in 2017, a global network of culture champions has supported culture workshops, communications campaigns, team-building activities and pulse surveys. More than 3,000 people have been trained to help bring our new culture to life.

Employee feedback has been positive to date. Our latest survey showed that almost three-quarters (74%) of employees are excited about the Company's future and the same proportion of employees understand the Company's targets and goals. In addition, we are already living our new culture according to more than half of respondents (58%). Work across organisational units is again raised as an area for improvement, however.

In addition to employee feedback, we were honoured to be named China's Preferred Employer of the Year by recruiting platform zhaopin.com and Peking University. One of the country's most credible and influential employer brand indices

assesses employer culture, brand image, management, training and development, working environment, compensation and benefits.

Safety

Our employees have a fundamental right to a safe workplace. We firmly believe that zero accidents is the only acceptable goal. RHI Magnesita's Safety First campaign, which was originated in 2011, clearly defines safety as the responsibility of every employee. To emphasise this, our CEO begins each quarterly update to employees with safety performance.

In 2019, our lost time injury frequency ("LTIF") rate was 0.28, a 30% improvement compared to 2018. Yet despite this sustained overall improvement, we were deeply saddened by the two fatalities that occurred following accidents. In Brazil, an employee died from medical complications following an occupational accident, while in Turkey a contractor died in an accident while unloading raw materials. No loss of life should ever happen in the course

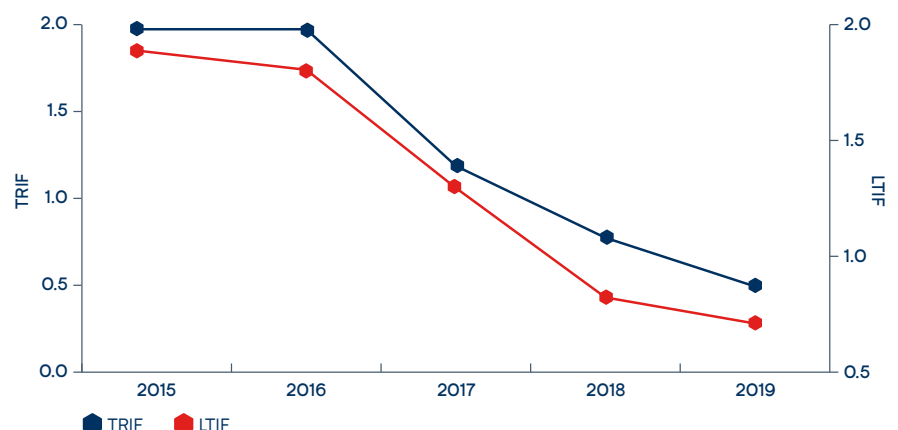
of our business and we are working hard to ensure that the lessons learned from these tragic incidents are implemented across our organisation.

One immediate result is a greater focus on contractor safety. Contractors working at our sites will now be included in our LTIF data. To do so, we are defining safety requirements by service provided and assigning accountability to site managers. Conversely, a significant number of our employees are contracted to work at customer sites. Although they are already included in our LTIF reporting, our new safety integration project aims to ensure that customers share our understanding, training and reporting practices for Health and Safety.

As we expand our work on safety, we place an equal focus on total recordable injury frequency ("TRIF").

Since most accidents happen due to unsafe actions, a major focus is behaviour-based safety and accident prevention. During 2019, we rolled

Lost Time Injury Frequency rate (LTIF)



Our People & Communities continued

LTIF improvement since 2018

30%

out observation audits to identify at-risk behaviours. We also conduct programmes and training for specific jobs, such as safety leadership for front-line leaders.

Near miss and unsafe situations are another focus and we set internal targets to mitigate unsafe situations, prevent accidents and learn from near-misses. We have begun to measure the severity rate of accidents and will set internal targets for this, too.

Promoting diversity

As a global company, we know that diversity and inclusion is critical to our success. Diverse businesses gain greater access to talent, learn from a wider range of perspectives and have proven to be more profitable.

We want employees of every background to feel welcome and valued. Our aim is to provide equal opportunities to everyone, regardless of gender, race, ethnicity, disability, sexual orientation, age or any other difference. Discrimination of any kind will not be tolerated.

In 2019, we ramped up diversity efforts. Led by the Executive Management team, we are embedding diversity into our business. A new global steering committee, together with six regional steering committees, is implementing diversity initiatives throughout our business. Since leaders are particularly important in promoting diversity, we conducted training and set clear diversity expectations of them. We also launched a high-profile internal communications campaign to build awareness and understanding across our business. In 2020, our global network of culture champions will also focus on diversity, helping to bring our commitment to life in day-to-day operations.

Gender diversity

Our target is to achieve 33% female representation on our Board and in our senior leadership. Given our 2017 merger and subsequent listing on the FTSE 250, we adopted the deadline of 2025, rather than 2020, as recommended by the Hampton-Alexander Review since we also needed to embed a new corporate culture.

We are committed to building gender diversity and are working to accelerate progress. Regrettably, gender diversity in senior leadership lags behind our ambition, although there was a 5% improvement over 2018. While women accounted for 22% of our Executive Management Team (EMT) in 2019, this figure falls to 17% when direct reports are included.

To develop our pipeline of female leaders, we are reaching deeper into the organisation to identify future leaders and to address potential obstacles to women's career development. One immediate result is that the Leadership Conference held in January 2020 for our top 60 leaders will include 10 future female leaders who are identified to have high potential. Personally invited by our CEO, these high-achieving middle managers from around the world will gain exposure to our leadership at the event and mentoring opportunities.

Other new measures include a requirement for at least one woman to be shortlisted among the final three candidates for all global roles, from apprentices to senior leadership. We are also exploring anonymised recruiting processes to reduce unconscious bias. Our new women's network is helping us understand the barriers experienced by women in our workplace.

A survey of more than 200 participants found that while most female employees felt equally treated, they occasionally encounter gender stereotypes and other obstacles to career development.

Survey results also confirmed the issues that we must address: the need for greater awareness of diversity, more flexible working and the promotion of parental leave for both men and women. In addition, the results yielded valuable recommendations for how to do so. For example, we are encouraged to:

- showcase existing female leaders as role models;
- make technical jobs more attractive to women;
- help women be more confident and assertive in the workplace;
- support parental leave and help returning parents back into work; and
- where necessary, focus on local cultural aspects of gender diversity.

International representation

In addition to gender diversity, we must ensure that our leadership reflects the markets we serve. Our business spans 40 countries, our workforce includes over 85 nationalities and we serve customers in over 125 countries. Yet in 2019, our leadership only included nine nationalities. Our first priority is therefore to ensure that each key geographic region is represented in senior leadership. One example is our international rotation programme for high-performing

Target of women in leadership by 2025

33%

Number of volunteers in 2019

300+

employees from China, given the strategic importance of the country to our business.

Lastly, we aim to open up our workforce and leadership to a greater range of ages. Our initial programmes include a new apprenticeship scheme for 16 year olds and relationship-building with educational institutions.

People & development

We want to develop best-in-class capabilities for our business while helping our employees fulfil their career potential. To do so, we provide development opportunities, while assigning accountability and rewarding performance.

The People Cycle, our new performance management system, has now been rolled out. Covering all employees, the system includes regular planning and structured performance reviews. Talent management and succession planning processes have also been implemented.

Our new global leadership learning framework #FitToLead was launched in 2019, empowering leaders to plan their own development. Our FitToLead Leadership Network event, which focused on our newly defined Leadership Capabilities, saw 110 leaders learn about future business challenges and new ways of thinking.

Another new initiative is our Global Talent Programme. Starting in 2020, we will recruit 15 high-potential trainees around the world, scaling up to 50 by 2025.

Training ranges from a leadership empowerment programme for operations to our purchasing

academy and online language courses. We aim to broaden the ways we offer training, both online and in person.

Investing in communities

As we expand our community programmes, we focus on key themes wherever we operate. In addition, we aim to build global partnerships and programmes that deliver significant and lasting impact. To measure our community investment, we use the LBG framework, the global standard.

Education and youth development

Our first international partnership is with Teach for All, a global network that addresses the lack of education, support and opportunity faced by many children around the world.

In 2019, we piloted a project with local partner Teach for Austria. Addressing educational inequity, the project trains graduates and young professionals to teach in urban low-income schools. In the first year, 250 children directly benefited from educational support we funded. In addition, our CEO and Chairman both taught a class during the Teach for Austria Week.

Based on positive feedback, we are expanding this partnership. In 2020, we will work with Teach for All to launch projects in Mexico and India, while in Austria, we will conduct hands-on workshops to encourage girls' interest in STEM subjects.

We also support STEM education projects across our business.

- In China, we launched the Innovation Green competition in 2019 together with leading universities in Liaoning Province. In its first year, 130 teams of students designed innovative solutions to environmental issues. We aim to roll out the competition across China.
- In Brazil, our Room for Inclusion programme provides digital education to schoolchildren from economically deprived areas near our Brumado plant. We supported the centre's construction and fund teaching and other costs.
- In the US, we donated a robot to the new career and technology centre in Conewago Valley School District, Pennsylvania.

Previously used in our plants, the robot will be programmed to move in laboratory exercises.

- In Austria, our new schools programme KiTec (Kids Explore Technology) aims to stimulate children's curiosity in STEM. Together with our partner, Wissensfabrik, we trained and equipped 50 teachers from 15 schools in 2019 and will expand the programme in 2020.

Tree planting and environmental protection

Given the climate and ecological crisis, we support tree-planting and reforestation projects. These natural climate solutions have the potential to mitigate climate change, support biodiversity and benefit local communities. During 2019, we continued to provide and plant trees in a number of countries (see Climate, page 68). In addition, we are assessing opportunities to develop our support for reforestation

Volunteering

A growing number of our sites now offer employees the chance to volunteer in our community programmes. In 2019, more than 300 employee volunteers participated in 18 community projects in South America, North America and Europe. These programmes ranged from educational projects to tree-planting initiatives. In 2020, we will continue to roll out volunteering opportunities across our business.

¹ As at the date of this report, does not include Employee Representative Directors

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Governance

Chairman's introduction to Corporate Governance



Dear Shareholder,

2019 has been another full and active year for us as we continue to develop our Corporate Governance standards to support value and benefit for our key stakeholders. In our 2019 programme we took full account of the new UK Corporate Governance Code 2018 (the "UKCGC") when assessing our governance practices in the course of the year and were pleased to note that our corporate DNA already accommodated a key principle of the UKCGC through our Employee Representative Directors who have been on our Board since 2017. Further detail on our engagement with stakeholders can be found on page 60 and 61. Updates to the Terms of Reference for each Board Committee have been undertaken to formalise compliance with the UKCGC in the course of the year. Further details on where we have complied or explained in respect of each of the UKCGC and the Dutch Corporate Governance Code 2016 (the "DCGC" and together "the Codes") can be found on page 76. The reports from each Board Committee can be found on pages 90 to 120.

At our Annual General Meeting ("AGM") in June 2019, we were pleased to formally welcome Janet Ashdown and Fiona Paulus as our two new Non-Executive Directors following their appointment by the general meeting, having had the benefit of their expertise as nominated Non-Executive Directors from December 2018.

Janet Ashdown and Fiona Paulus were appointed to the Corporate Sustainability Committee. Janet as the Chair, and the Committee has generated significant momentum in the course of 2019 as the Company's focus on sustainability has grown. More details of this Committee's duties can be found on page 92. Both Janet and Fiona bring new expertise, and a wealth of experience to the Board, and we look forward to their contribution going forward.

With these non-executive appointments, I'm delighted to report our gender diversity on the Board has now increased to nearly 25% and half of our Board committees are chaired by women. I plan to report further progress on gender diversity when I report in a year's time. We were also delighted to have appointed a new Chief Financial Officer and Executive Director during the AGM in June 2019, with Ian Botha joining us from Anglo American Platinum Ltd. on 1 April 2019. Ian's excellent skills and experience are already delivering benefits to the Company and he has contributed a great deal of rigour and financial detail to our Board discussions.

As reported in the 2018 Accounts, Fersen Lambranhó stepped down from the Board on 21 January 2019. Subsequently GP Investments sold their stake in the Company on 19 November 2019. I would like to record the Board's appreciation for Fersen's commitment and contribution to the Company and its establishment.

Throughout the year we have held various meetings with shareholders, and we continue to engage with shareholders on matters of corporate governance. Should you have any questions or issues to raise, please contact our Investor Relations team at the contact details on page 226.

I was proud to lead a refreshed Board in 2019. They have provided constructive challenge to our Executive Management Team and enthusiastically engaged with a whole host of challenges, new and emerging in an increasingly complex world. Of course, 2020 will bring its own challenges, some existing and some new, which we are already managing and responding to as you can see in my Chairman's Statement earlier on in this report, but I'm confident we have the right executive team and Board in place to meet these. A more detailed overview of the matters discussed and debated by the Board at its meetings during the year is presented on pages 82 and 83.

Finally, all Directors will seek re-election at our AGM in Amsterdam on 18 June 2020 and we look forward to providing an update on business performance at that meeting.

Herbert Cordt

Chairman of the Board of Directors



I was proud to lead a refreshed Board in 2019. They have provided constructive challenge to our Executive Management Team and enthusiastically engaged a whole host of challenges, new and emerging in an increasing complex world.



Herbert Cordt

Chairman of the
Board of Directors



Corporate Governance Statement

Compliance with the Dutch Corporate Governance Code ("DCGC") and the UK Corporate Governance Code ("UKCGC")

The Board has applied the principles of, complies with and intends to continue to comply with the requirements of, both the DCGC and the UKCGC to the fullest extent possible, with a limited number of deviations set out below.

Deviations from the UK Corporate Governance Code in 2019

The Company adopted relevant corporate governance practices to comply with the UKCGC, including publishing the Chief Executive Officer (the "CEO"), Chairman, Senior Independent Director (the "SID") and Deputy Chairman roles on the Company's website and updates to the Terms of Reference for each Board Committee have been undertaken to ensure the required elements were considered by each Committee. Whilst the Company is compliant with the provisions, other than those stated below, it is anticipated that as the UKCGC is embedded, best practice will emerge and thus the Company's practices will evolve and further embody the spirit of the UKCGC.

As disclosed in last year's report, the Company did not comply with Provision A.3.1 of the 2016 UK Corporate Governance Code which referred to the independence of the Chairman of the Board. This provision is in the UKCGC under provision 9 and the Company did not comply. The Chairman is not considered to be independent for the purposes of the UKCGC because he served on the Board of RHI AG, prior to the merger, for more than nine years, and therefore could not be judged independent under provision 10. This also means the Company is not compliant with provision 19. The Board believes that Herbert Cordt continues to demonstrate integrity, objective judgement and independence of character and judgement, and that his experience as Chairman of RHI AG's supervisory board is valuable to the Company, providing continuity and corporate memory, and therefore justifies his position as Chairman.

Deviations from the Dutch Corporate Governance Code in 2019

As disclosed last year's report, the Company did not comply with the following provisions of the DCGC in 2019:

Best practice provision 2.2.2 of the DCGC recommends that, in case of a one-tier board, a Non-Executive Director should be appointed for a period of four years. The appointment of the Non-Executive Directors (other than Employee

Representative Directors) has been made on the basis of three-year terms subject to performance and annual re-election at the AGM which was consistent with the UKCGC at the time of appointments. The Board considers that the three-year term is within the spirit of the UKCGC and does not propose to make changes to the existing Non-Executive appointments.

In the 2018 report the Company confirmed compliance with all other provisions and principles of the DCGC however, best practice provision 2.1.1 was not complied with in 2018 as the Board profile was not published on the website until 2019 as a result of an oversight and so the Company is pleased to confirm it is now compliant. Additionally, in the course of 2020, the Company will improve its compliance with best practice provision 2.7.2 and implement a policy governing ownership of securities, other than those issued by the Company, by the Board and management.

Corporate governance declaration

The DCGC requires companies to publish a statement concerning their approach to corporate governance and compliance with the DCGC. This is referred to in article 2a of the decree on requirements for annual reports (*Besluit inhoud bestuursverslag*) of 23 December 2004, as most recently amended on 1 January 2018 (the "Decree").

The information required to be included in this corporate governance statement as described in articles 3, 3a and 3b of the Decree, forms part of the Annual Report, which is available on the Company's website. The information required to be included in this corporate governance statement as described in sections 3, 3a and 3b of the Decree can be found in the following chapters, sections and pages of the Annual Report and are deemed to be included and repeated in this statement:

- the information concerning compliance with the DCGC, as required by section 3 of the Decree, can be found on page 76;
- the information concerning the Company's main features of the internal risk management and control systems relating to the financial reporting process, as required by section 3a sub a of the Decree, can be found on page 54 and 55;
- the information regarding the functioning of the General Meeting and its main authorities and the rights of the Company's shareholders and holders of certificates of shares and how

they can be exercised, as required by section 3a sub b of the Decree, can be found on pages 74 to 120;

- the information regarding the composition and functioning of the Board and its Committees, as required by section 3a sub c of the Decree, can be found on pages 90 to 120;
- the diversity policy with regard to the composition of the Board and their Committees, can be found on page 91; and
- the information concerning the disclosure of the information required by the Decree on Section 10 EU Takeover Directive, as required by section 3b of the Decree, may be found on page 77, 80 and 81.

Listing Rules information

For the purposes of LR 9.8.4C R, the information required to be disclosed by LR 9.8.4 R is set out in the table below.

1.	Interest capitalised	n/a
2.	Publication of unaudited financial information	n/a
3.	Details of long-term incentive schemes	Pages 103, 106, 120
4.	Waiver of emoluments by a Director	n/a
5.	Waiver of future emoluments by a Director	n/a
6.	Non pre-emptive issues of equity for cash	n/a
7.	Item (6) in relation to major subsidiary undertakings	n/a
8.	Parent participation in a placing by a listed subsidiary	n/a
9.	Contracts of significance	n/a
10.	Provision of services by a controlling shareholder	Refer to Note 62
11.	Shareholder waiver of dividends	n/a
12.	Shareholder waiver of future dividends	n/a
13.	Agreements with controlling shareholders	Refer to Note 62

Major shareholdings

At the date hereof, the Company is aware of the following persons holding directly or indirectly at least 3% of the issued and outstanding shares in the capital of the Company:

Shareholder	Number of shares	%
MSP Stiftung ¹	14,333,340	29.21
E. Prinzessin zu Sayn-Wittgenstein Berleburg ²	2,088,461	4.22
K.A. Winterstein ³	2,088,461	4.22
W. Winterstein ⁴	1,590,000	3.21

¹ Information obtained from the Issuer: Held directly by MSP Stiftung and through a subsidiary. MSP Stiftung is a foundation under Liechtenstein law, whose founder is Mag. Martin Schlaff.

² The interest is held through Chestnut Beteiligungsgesellschaft mbH ("Chestnut"). Ms. Sayn-Wittgenstein made an agreement with Mr. Winterstein which allows Chestnut to exercise the voting rights of Silver Beteiligungsgesellschaft mbH ("Silver") in the Issuer. Ms. Sayn-Wittgenstein and Mr. Winterstein share a family relationship.

³ The interest is held through Silver. Ms. Sayn-Wittgenstein made an agreement with Mr. Winterstein which allows Chestnut to exercise the voting rights of Silver in the Issuer. Ms. Sayn-Wittgenstein and Mr. Winterstein share a family relationship.

⁴ Held in part directly and in part indirectly through FEWI Beteiligungsgesellschaft mbH.

There are no restrictions on voting and profit rights and no holders of any securities with special control rights. Depositary interests in respect of shares have been issued by the Company with the Company's cooperation.

Shares may be issued pursuant to a resolution of the General Meeting or of the Board, if and insofar as, the Board has been designated for that purpose by a resolution of the General Meeting.

Such designation shall be as set out in the Company's Articles of Association. The Company shall notify each issuance of shares in the relevant calendar quarter to the Dutch Trade Register, stating the number of shares issued.

Transactions with majority shareholders

There have been no transactions between the Company and MSP Stiftung within the meaning of best practice provision 2.7.5 of the DCGC. Since there are no other legal or natural persons who hold at least 10% of the shares in the capital of the Company, no declaration in accordance with best practice provision 2.7.5 of the DCGC has to be published.

Outline of anti-takeover measures

No anti-takeover measures have been implemented, however in 2019 the Company did take action to extend regulatory protections to its shareholders which could have been lost. As a result of the UK's exit from the European Union, there appeared to be a risk that the Company and its shareholders, in certain circumstances, would lose the protections provided by the UK Takeover Code and any takeover of RHI Magnesita N.V. would therefore be effectively unregulated. The Board took action accordingly, and on 29 March 2019 the Company acquired a secondary listing on the Vienna Stock Exchange (Wiener Börse) which, as a regulated market in European Economic Area, meant this unregulated scenario could never arise.

Share buy back

In 2019, further to the authority given by the shareholders at the Annual General Meeting to purchase a maximum of 5% of the issued share

capital of the Company at the date of acquisition, the Company undertook a share repurchase programme to ensure a supply to satisfy awards made under its Long-Term Incentive Plan. The buy-back of 400,000 ordinary shares commenced on 12 August 2019 and concluded on 23 September 2019. It was conducted on a non-discretionary basis with Barclays Bank plc who made the share purchases on the Company's behalf, independently of and uninfluenced by the Company. The purchases were made on market terms and at an average price of 4,229.39 pence per share. Dilution of the issued share capital amounted to 0.8% and there was a minimal impact on existing and major shareholders in the Company. The Company is holding the shares in treasury until they are required to satisfy awards made under the terms of the Company's Long-Term Incentive Plan. The remaining amount authorised under this resolution, at the date of publication, is 4.2%. This will expire at the end of the next AGM or the date which falls fifteen months from the 2019 AGM.

Board and Committee structure

The Company has a one-tier board structure with a Board consisting of both Executive Directors and Non-Executive Directors (collectively the "Directors"). As at the date of this Annual Report (the "Annual Report"), the provisions of Dutch law that are commonly referred to as the "large company regime" (*structuurregime*) do not apply to the Company.

The Board has established four Board Committees: the Audit & Compliance Committee (the Audit Committee), the Remuneration Committee, the Corporate Sustainability Committee and the Nomination Committee to

Corporate Governance structure



Corporate Governance Statement continued

ensure a strong governance framework for decision-making and assessment of performance against the Company's strategy. The terms of reference of these Committees can be found on our website and the reports of each Committee, including membership and attendance at meetings in 2019, can be found on pages 90 to 120.

Brazil Board visit

The Board ensures that one Board session per annum is held at a location other than the Vienna headquarters and in April 2019, the Board travelled to Brumado¹ and Contagem in Brazil. Here they met with local management and plant employees, toured a mine, an R&D centre and visited a client's site. This allowed the Directors to experience first-hand the culture of the operations and the local opportunities and challenges. It was also an example of living the Company's culture whereby the Directors were customer-focused and gained information which would enable them to put the customer at the centre of operations. Such visits to global sites are vital to better understand the Group's diverse businesses and the environments in which they operate. Meeting with local management teams assists the Board in assessing and monitoring the Group's culture and its alignment with the Group's strategy and values. In the course of the year, Non-Executive Directors have also visited operations in Rotterdam and Hochfilzen, amongst others, as part of inductions and ongoing development.

Culture

The integration work following from the 2017 merger of the Company has been a focus for the Board this year and running through this work has been the thread of culture, recognising that it is a crucial element to the success of integration, delivery of synergies and a sustainable company.

The Board has considered the foundations of the new corporate culture which has been laid through a number of different initiatives. A global network of culture champions has been constructed to support culture workshops, communications campaigns, team-building activities and pulse surveys across the business and more than 3,000 people have been engaged and trained so that culture of the Company is embodied in practice and brought to life. The Board has considered the culture of different teams, and discussed with management,

how that culture has contributed to decision-making within the business.

Culture has been inherent in the Board's discussions and questions, from consideration of whistleblowing reports to the success of Health & Safety campaigns. This ongoing work has led the understanding of performance in teams such as supply chain management, finance and sales, as well as on the ground in our plants and operations.

The Company is committed to responsible management and its activities are based on integrity, honesty, reliability and respectful contact with employees and business partners. The following key cultural themes determine the actions of the Company:

- act customer-focused and innovatively;
- have open decision-making in a respectful environment;
- operate cross-functionally, collaboratively and pragmatically across the global organisation;
- be performance-driven and accountable.

The Code of Conduct, the whistleblowing hotline, as well as additional policies and procedures of the comprehensive Compliance programme, are essential tools to embed the corporate culture and values as well as the fundamental legal and ethical rules the Company stands for.

Through the Directors' visits to plants, customer sites and the hub in Rotterdam, they have been able to observe and experience the culture of the Company directly, as well as receiving reports to the Board of Employee Engagement and hearing directly from the Employee Representative Directors. The Board of Directors has access to the RHI Magnesita mobile application which shares up to date news about the activities of the Group across the globe, detail on strategy and progress against objectives with all employees. The ability to comment and respond to articles gives direct access to the employee voice. More detail can be found in the Board stakeholder engagement report on page 60 and 61.

Whistleblowing

Potential concerns about the business or any suspected wrongdoing can be reported to an independently operated, confidential and anonymous whistleblowing hotline. Contact details are publicised throughout the business and are available on the website. Any suspected code violations are managed by a team

comprising Compliance, HR and Internal Audit. The Board routinely reviews this process and the reports arising from its operation, ensuring there are arrangements in place for the appropriate and independent investigation of these cases and that follow-up actions are completed. The Audit Committee report contains more details on pages 93 to 95.

Workforce engagement

As referred to in the Chairman's introduction to Corporate Governance, RHI Magnesita's corporate structure has, from the beginning, included Employee Representative Directors. These Directors, Michael Schwarz and Franz Reiter, have been on the Board from 2017 and they play an active role at Board meetings, representing views of the workforce and holding management to account with the combined benefit of nearly 80 years of experience at the front line of operations. The information and discussions at Board meetings helps their support of the workforce and provide a mutually beneficial link between colleagues and the Board.

In addition to the Employee Representative Directors, the Company conducts regular pulse surveys of employees, the results of which are reported to the Board, to inform the Directors as to the culture of the Company and guide any action plan to improve engagement.

Across the business, around 71% of employees are represented by work councils, trade unions or other bodies and agreements. The business engages with these bodies, in line with the core conventions of the International Labour Organisation and the Board is apprised of key developments and considerations relating to it.

In the course of 2020, the Board intends to further develop its employee engagement programme to ensure coordinated representation of the global workforce.

The Board site visits, referred to at page 78, enable the Board to interact in an informal setting with employees, allowing for authentic and direct conversations which help the Directors in their decision-making and their guidance of the executive team.

As part of improving engagement and understanding of the Company's Long-Term Incentive Plan (the "LTIP"), James Leng, SID and Deputy Chairman, held a webinar with participants to outline the benefits of the LTIP and how it aligns with shareholder objectives.

1. Excluding the two Employee Representative Directors whose appointment to the Board is delegated by respective works councils.

Colleagues from across the world were able to ask questions and clarify their understanding of the LTIP.

These are just some examples of direct engagement between Board Directors and employees which live the values of the Company to operate collaboratively and pragmatically across the global organisation, sharing information, and keeping it simple.

Corporate Governance at a glance

Board diversity

As noted in the Chairman's letter, Fiona Paulus and Janet Ashdown were appointed to the Board by shareholders in June 2019, and their appointments have broadened gender diversity on the Board to 23%. The valuable decision-making and input from the Board Committees is directly influenced by this diversity, and 50% of the Committees are now chaired by female independent Non-Executive Directors.

The Board continues to pursue a policy of having at least 30% of the seats on the Board held by men and at least 30% of the seats on the Board held by women, in accordance with the "balanced composition" requirement under Dutch law which applied in 2019. It is planned that this will be achieved during 2021. The Nomination Committee continues to explore paths to build gender diversity, and more can be read about its efforts in this area on pages 90 and 91.

The Board is committed to encouraging diversity to deliver long-term sustainable success for the Company and will continue to pursue its programme in this regard. The Nomination Committee seeks to ensure the right balance of skills, knowledge and experience on the Board, taking account of the business model, long-term strategy and the sectors and geographic locations in which the Group operates.

In view of the Company's strategy, objectives and activities, it is important that the Board has sufficient global manufacturing experience and outlook, financial literacy, and is structured so that the following experience and capabilities are present in one or more of its Directors:

- knowledge and understanding of the business and products of the Company and its subsidiaries and the markets and geographies in which the Company and its subsidiaries operate, in particular the trends and future developments of these markets and geographies;
- an international background and geopolitical exposure;

- broad board experience, including knowledge of corporate governance issues at main board level as appropriate for the Company with reference to its size and international spread of activities;
- understanding of corporate social responsibility and sustainability matters;
- practical experience in, and relating to, financing and accounting and/or experience in relation to International Financial Reporting Standards ("IFRS"), as well as in the areas of risk management and internal controls;
- understanding of the markets where the Company is active, in particular emerging markets;
- science, technology and innovation expertise;
- experience and understanding of human resources and remuneration related matters; and
- personal qualities such as impartiality, integrity, tolerance of other points of view, ability to challenge constructively and act critically and independently.

The Nomination Committee considers that all of these aspects are present in a number of the Directors and well represented across the Board. It continues to assess these skills and consider what other areas of expertise could benefit the Board in future appointments.

Board composition

The Board is composed of 15 Directors which comprises two Executive Directors, two Employee Representative Directors and 11 Non-Executive Directors, eight of whom are deemed independent as set out in the table on page 80 and thus ensuring a majority independent Board. The size of the Board means that input and

challenge from various perspectives can be provided, allowing for balanced healthy debate. The Chairman takes care to ensure that each Director has opportunity to comment and be heard, whilst enabling an orderly flow at Board meetings. The Chairman is assisted in this by the Company Secretary and CEO through the careful preparation of agendas and the timely provision of papers to the Board.

Information and support for Directors

Upon joining the Board, any new Director is offered a comprehensive and tailored induction programme across all aspects of the value chain, with visits to key sites and meetings with senior managers and other colleagues. Any new members to Committees are provided with the opportunity for a full and detailed induction, even if they are existing members of the Board. Relevant reference documents are also made available on the Board portal to new Board and Committee members.

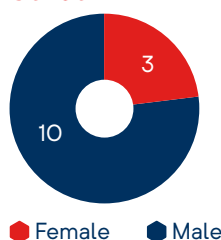
In order to build and increase the Non-Executive Directors' appreciation and understanding of the Group's people, businesses and markets, particularly growth markets, senior managers are regularly invited to make presentations at Board meetings.

There is an established procedure for Directors to take independent professional advice in the furtherance of their duties, if they consider this necessary.

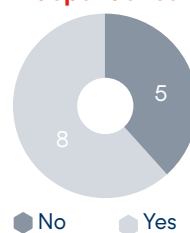
The Company maintains Directors' and Officers' liability insurance which provides appropriate cover for legal action brought against its Directors. In line with Dutch best practice and corporate law, at each AGM there is a resolution to release the Directors from liability for the exercise of their respective duties during the financial year.

Board diversity and composition

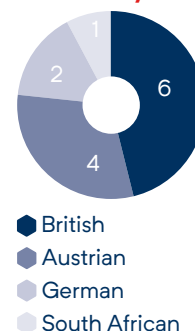
Gender



Independence



Nationality



Corporate Governance statement continued

At the date of this Annual Report, the Board is composed as follows:

Name	Position	Year of birth	Date of appointment	Expiry/ reappointment date
Herbert Cordt	Non-Independent Non-Executive Director, Chairman ¹	1947	20 June 2017	2020 AGM
Stefan Borgas	Executive Director (CEO) ³	1964	20 June 2017	2020 AGM
Ian Botha	Executive Director (CFO) ³	1971	6 June 2019	2020 AGM
James Leng	Independent Non-Executive Director ^{2,3} Deputy Chairman and Senior Independent Director	1945	6 October 2017	2020 AGM
David A. Schlaff	Non-independent Non-Executive Director ^{4,5}	1978	6 October 2017	2020 AGM
Stanislaus Prinz zu Sayn-Wittgenstein	Non-independent Non-Executive Director ^{4,5}	1965	6 October 2017	2020 AGM
John Ramsay	Independent Non-Executive Director ^{2,3}	1957	6 October 2017	2020 AGM
Celia Baxter	Independent Non-Executive Director ^{2,3}	1958	6 October 2017	2020 AGM
Janet Ashdown	Independent Non-Executive Director ^{2,3}	1959	6 June 2019	2020 AGM
Andrew Hosty	Independent Non-Executive Director ^{2,3}	1965	6 October 2017	2020 AGM
Wolfgang Ruttensdorfer	Independent Non-Executive Director ⁶	1950	20 June 2017	2020 AGM
Karl Sevelde	Independent Non-Executive Director ^{2,3}	1950	6 October 2017	2020 AGM
Fiona Paulus	Independent Non-Executive Director ^{2,3}	1959	6 June 2019	2020 AGM
Michael Schwarz	Employee Representative Director ³	1966	8 December 2017	8 December 2021
Franz Reiter	Employee Representative Director ³	1962	26 October 2017	26 October 2021

¹ Herbert Cordt was a member of the supervisory board of RHI AG and thus not deemed to be independent within the meaning of the UKCGC but independent within the meaning of the DCGC due to a difference in independence requirements under the respective codes.

² Independent within the meaning of the UKCGC.

³ Independent within the meaning of the DCGC.

⁴ Non-Independent within the meaning of the UKCGC.

⁵ Non-Independent within the meaning of the DCGC.

⁶ Mr. Ruttensdorfer is, as a result of having undertaken a management board role for RHI on a temporary basis between June and November 2016, not considered to be independent within the meaning of the DCGC. Notwithstanding this historic role, the Board considers Mr. Ruttensdorfer to be independent for the purposes of the UKCGC.

Conflict of interests

Dutch law provides that a Director may not participate in the discussions and decision-making by the Board if such Director has a direct or indirect personal interest conflicting with the interests of the Company or the business connected with it.

Pursuant to the Articles of Association and the rules adopted by the Board (the "Board Rules"), the Board has adopted procedures under which each Director is required to declare the nature and extent of any personal conflict of interest to the other Directors in accordance with Dutch law and the DCGC.

Time commitment

On appointment, and each subsequent year, Non-Executive Directors confirm that they have sufficient time to devote to the Company's affairs. In addition, they are required to seek prior approval from the Chairman before taking on any additional external commitments, and the Board is advised of any changes. The Board is satisfied

that, having considered the demands of the external appointments of each Non-Executive Director and the time requirements from the Company, all Non-Executive Directors are contributing effectively to the operation of the Board. Whilst the Non-Executive Directors are re-elected each year at the AGM, their letters of appointment state a term of three years.

Company Secretary

Sally Caswell was appointed by the Board as Company Secretary with effect from 1 January 2020. The Directors have access to the advice and services of the Company Secretary, whose responsibilities include ensuring that Board procedures are followed, assisting the Chairman in relation to corporate governance matters and, in conjunction with the General Counsel, ensuring the compliance of the Company with legal and regulatory requirements.

Overall Board role and leadership

Powers, responsibilities and functioning

The Board is collectively responsible for and has the power to conduct the general affairs of the Company. This role includes being collectively responsible for the long-term success of the Company, and for its leadership, strategy, values, standards, control and management. The Board Rules, which are available on the website, set out those matters which are reserved for the Board to consider. The types of decisions reserved for the Board include, among other items, overall responsibility for strategy and management, major acquisitions and investments, structure and capital, financial reporting and controls, and corporate governance. The Executive Management Team was installed and its main tasks and responsibilities are to assist the Board with its responsibilities concerning the strategy of the Company and to make strategy recommendations to the Board, being accountable for implementing the Board's decisions, and being responsible for directing

and overseeing the operations of the Company. The oversight and challenge by the Non-Executive Directors of the management activity ensures that the strategy of the Company is delivered.

Pursuant to the Articles of Association, the Board may, if it elects to do so, assign duties and powers to individual Directors and/or committees that are composed of two or more Directors, with the day-to-day management of the Company entrusted to the Executive Directors. The Non-Executive Directors have the task of providing strategic guidance to the management and scrutinising the performance of duties by the Executive Directors, as well as the general course of affairs of the Company and the business connected with it. They should hold the Executive Directors to account. In addition, both Executive Directors and Non-Executive Directors must perform such duties as are assigned to them pursuant to the Articles of Association and the Board Rules or a resolution of the Board. Each Director has a duty towards the Company to properly perform the duties assigned to him or her. Furthermore, each Director has a duty to act in the corporate interests of the Company and its business. Under Dutch law, corporate interest extends to the interests of all stakeholders of the Company, such as shareholders, creditors, employees and other stakeholders.

The Board as a whole is entitled to represent the Company. Additionally, the CEO and the Chairman, acting individually, and two Executive Directors, acting jointly, are also authorised to represent the Company. In addition, pursuant to the Articles of Association, the Board may appoint officers who are authorised to represent the Company within the limits of the specific powers delegated to them. The role of the Board is to lead the Company and develop its strategy in order to deliver long-term and sustainable success, generating value for shareholders and key stakeholders. The Board assesses the strategic risks it is willing to take in pursuit of this strategy and measures the performance of management against agreed objectives aligned with the strategy. The Board ensures that appropriate controls and systems are in place to manage risk and considers the Company culture and practices, reviewing alignment with the purpose, values and strategy.

The Board has delegated responsibility for day-to-day management to the CEO and his Executive Management Team in accordance with the Company's Articles of Association. The Board has delegated some responsibilities to Committees of the Board and these responsibilities are outlined in the Committee Terms of Reference available on the Company website and summarised in their individual reports on pages 90 to 120. The Chairman of each Committee provides a report to each Board on the matters discussed and resolved upon in the respective Committee meetings.

Each Board Committee has considered the required matters from the respective terms of reference and, through the Board evaluation process, has assessed its performance. The composition of the Committees, the number of meetings, attendance at those meetings and key items discussed can be found in each Committee Report on pages 90 to 120.

Individual roles

The Board has a formal Board Rules document which covers the matters reserved for its approval including approvals of major expenditure, investments and key policies. The roles of Chairman, the CEO, SID and Deputy Chairman have been formally recorded by the Board and these can be found on the Company website. The composition of the Board has been structured such that no one individual can dominate the decision-making processes of the Board.

As reported in the 2018 report, Andrew Hosty provides a Board level presence to the Technical Advisory Committee (the "TAC"). As an observer to that Committee he provides focused board level supervision of a management committee within the course of his role as a Non-Executive Director, leveraging his specific engineering and manufacturing experience. Other members comprise members of the Executive Management Team, senior and global R&D and Technical Marketing Specialists. The TAC met once in 2019 and further details are outlined on page 33.

Non-Executive roles

The Employee Representative, non-independent and independent Directors on the Board engage with the business of the Board from different perspectives, enabling multifaceted scrutiny to be applied to the Board's decision-making ensuring that the perspective of the Company's key stakeholders is represented. All Directors exercise their independent judgement and act in the best interests of the Company in their decision-making.

Non-Independent Director roles

Stanislaus Prinz zu Sayn-Wittgenstein, David Schlaff and Herbert Cordt are not considered independent under the UKCGC, having been members of the supervisory board of RHI AG for a number of years prior to the merger in 2017 with Magnesita. However, because of that experience, they contribute strongly to the Board's culture and personality, adding valuable insight gained through experience of the markets in which the Group operates and corporate memory. They can constructively challenge the Executive Directors and scrutinise the performance of management in meeting their objectives in a different way to the independent Non-Executive Directors. Stanislaus Prinz zu Sayn-Wittgenstein additionally is a representative of shareholders and, with David Schlaff, another shareholder representative, can provide the investor perspective to the management team and challenge them to deliver to the agreed objectives to contribute to the long-term and sustainable success of the Company. The detail of all the Directors' independence and the detail of compliance with the criteria of each Code can be found on pages 80 and 76 respectively.

Executive Directors

In accordance with Dutch law, an Executive Director may not be allocated the tasks of: (i) serving as Chairman; (ii) participating in the adoption of resolutions (including any deliberations in respect of such resolutions) related to the remuneration of Executive Directors; or (iii) nominating Directors for appointment.

The role of an Executive Director is, amongst other things, to bring commercial and internal perspectives to the boardroom. The Executive Directors, being the CEO and CFO, are responsible for the leadership and management of the Company according to the strategic direction set by the Board.

Tasks that have not been specifically allocated to a specific Director fall within the power of the Board as a whole. The Directors share responsibility for all decisions and acts of the Board and for the acts of each individual member of the Board regardless of the allocation of tasks.

Pursuant to the Articles of Association, Directors other than the Employee Representative Directors are appointed at the AGM by a majority of votes cast, irrespective of the represented capital. The Board makes nominations to the AGM for such appointments. A resolution to appoint the Director other than in accordance with a nomination by the Board may be adopted at a general meeting by an absolute majority of votes cast representing more than one-third of the Company's issued capital.

Non-Executive Directors (other than Employee Representative Directors) will be nominated for a term of three years, subject to satisfactory performance and annual re-appointment at the AGM. Employee Representative Directors are appointed for a term of not more than four years. The term of office for each Director (other than Employee Representative Directors) will end on the day of the AGM in the year following appointment. Pursuant to the Articles of Association, Directors may be re-appointed for an unlimited number of terms, but it is anticipated that the Non-Executive Directors (other than Employee Representative Directors) may be offered a second term of three years, at the expiry of which they will not ordinarily be considered for re-appointment.

The shareholders have the power to suspend or remove a Director at any time, by means of a resolution for suspension or removal as outlined in the Articles of Association. The shareholders are authorised to resolve to amend the Articles of Association, on the proposal of the Board.

Corporate Governance Statement continued

As per the UKCGC, excluding the Chairman, at least half of the Board is comprised of Non-Executive Directors determined to be independent. The Board has considered the independence of the Non-Executive Directors, including potential conflicts of interest, and the table on page 80 sets out those Directors considered independent. Each of these Directors has also confirmed that there is no reason why they should not continue to be considered independent.

The Chairman's other significant commitments are set out in the table below:

Name of company	Function
CORDT & PARTNER Management- und Finanzierungsconsulting GesmbH.	Managing Partner
Watermill Group Boston	Advisory Board member
Georgetown University, School of Foreign Service, MSFS Program	Advisory Board member
Quality Metalcraft / Experi-Metal, Inc.	Advisory Board member
Cooper & Turner Group	Advisory Board member

Board attendance

Seven Board meetings were planned for the year (2018: 10), with two meetings held at short notice on specific items. Where short notice was provided, information was provided to all Directors in advance and comment was received from them and considered at the meeting in respect of the matters discussed.

The table below shows the number of scheduled meetings attended and the maximum number of scheduled meetings which the directors were eligible to attend. Only in exceptional circumstances would Directors not attend Board and Committee meetings. Similarly, every effort is made to attend ad hoc meetings either in person or via the use of video or telephone conferencing facilities if necessary. None of our Non-Executive Directors have raised concerns over the time commitment required of them to fulfil their duties.

On the evening before most scheduled board meetings the Board and management team meet together, and this time is usefully spent sharing views and considering issues impacting the Company, making the most of the two-day session. Time together also helps to develop relationships contributing to better discussion and decision-making around the board table.

Board attendance 2019	Total attended	Total meetings eligible to attend
Herbert Cordt	8	9
Jim Leng	9	9
Celia Baxter	9	9
Andrew Hosty	8	9
John Ramsay	8	9
Stanislaus Sayn-Wittgenstein	9	9
Wolfgang Rutenstorfer	9	9
Karl Sevelde	9	9
David Schlaff	9	9
Janet Ashdown	7	9
Fiona Paulus	8	9
Michael Schwarz	7	9
Franz Reiter	7	9
Stefan Borgas	9	9
Ian Botha	6	6

- 1 In the year, two Board sub committees were held to approve matters specifically delegated by the Board in accordance with article 17.5 of the Company's Articles of Association. These are not included in the table above.
- 2 Fiona Paulus and Janet Ashdown attended meetings up to and including 6 June 2019 as observers, being nominated Non-Executive Directors.
- 3 Ian Botha was appointed as CFO on 1 April 2019 and attended meetings between that time and 6 June 2019 as a member of the Executive Management Team.
- 4 Two meetings were called on short notice which restricted attendance where Directors had existing commitments.
- 5 Herbert Cordt missed one meeting as a result of ill health

Board leadership

Meetings and decision-making of the Board

The Board commits to meeting regularly throughout the year with five formal two-day sessions in Vienna, which allows time for Board committees to sit, and a further two formal sessions held in a location other than Vienna. One is in advance of the AGM in the Netherlands and one is at a key operational site. In 2019, this was at Contagem, Minas Gerais, Brazil and in 2020 is planned to be at Dalian in China. Board meetings can also be convened as deemed necessary by the Chairman or the SID.

At the end of each Board meeting, the Non-Executive Directors meet without the Executive Directors and management present to enable an open and frank exchange of views and assessment of performance. Additionally, the SID holds a meeting with the other Non-Executive Directors to assess the Chairman's performance in the course of the year. The Chairman and the other Non-Executive Directors will regularly have informal, individual, meetings with the Executive Directors and other senior managers in the business for the purpose of clarifying information in response to questions or to obtain further information on points of interest and which contributes to the development of both the Non-Executive Director and the management member.

Board papers are circulated in advance of meetings, using a secure web-based portal, to allow Directors sufficient time to consider their content prior to the meeting. The management team continues to take feedback from the Board via the evaluation process on how papers and presentations can be improved to assist the flow of the meeting. An information room within the web portal provides access to useful information, including corporate governance reference materials, analyst reports, and Company finance, treasury and strategy information.

In making decisions, the Board considers views from across its key stakeholder groups. As covered above, there have been many opportunities for engagement and discussion with members of the workforce from across the globe and the Board's own Employee Representative Directors provide a direct voice in the Board room on a range of matters, but particularly those which impact the workforce. In 2019, these decisions have included upgrades to plants and offices to improve the working lives of the workforce. The voice of this stakeholder group has also been considered in the context of business performance and the economic environment. The Board recognises the balance of these factors in acting in the best interests of the Company, and if a decision is made, such as to place a plant on care and maintenance, which does not benefit that group of employees, efforts are made to mitigate the impact on them and transparently communicate the decision. This aligns with the Company values to be open in decision making and accountable for actions taken.

The Board has had the opportunity to meet customers in its key market areas and Directors have directly observed the interaction between management and their customers. The Company's Net Promoter Score is also considered at Board meetings. This input brings customer priorities to the forefront of considerations and the Board utilises it to challenge management accordingly to meet customers' expectations.

The perspectives of shareholders and market analysts is represented at Board meetings with reports from the Investor Relations Team and coverage from a variety of analysts regularly provided to the Board, in addition of course, to the representation of shareholders from two non-independent Non-Executive Directors. These perspectives are considered by the Board, in a variety of discussions and decisions, including those on capital expenditure and share capital management.

Areas of focus

In 2019, the Board focused on strategic, financial, operational, business, risk, human resources and governance issues. More specifically, they considered: matters of health & safety, performance of particular plants and action plans to address any issues, opportunities for business development, acquisitions, financial health of the Group as a whole, customer feedback, employee feedback, input from local authorities, risks to execution of initiatives, the development of recycling initiatives and low carbon products, amongst many more items. Action logs ensured a continuous overview of progress and development.

Board evaluation

As advised in the 2018 Annual Report and Accounts, Lintstock are engaged on a three-year programme to assist the Board in its evaluation of its performance. The Company has no other relationship with Lintstock. Prior to commencing this second stage of the three year programme, the Board considered the good progress made against actions from the previous year under the headings of Board Composition, Stakeholder Engagement, Board Dynamics, Board Materials, Board Support & Training, Management & Focus of Meetings, Board Committees, Strategic Oversight, Risk Management and Internal Control and Board Remuneration.

In this second year of review, Lintstock undertook a full Board evaluation process with a detailed questionnaire issued to all of the Board and the Executive Management Team, which then informed individual confidential face-to-face interviews with each member of the Board. In order to promote an open and frank exchange of views, appropriate arrangements were made to ensure the anonymity of the respondents.

The review covered core areas of the Board and Committee performance, with particular focus on:

- Board composition and diversity;
- Board Committee effectiveness;
- stakeholder oversight;
- culture and organisational behaviours;
- Board dynamics, structure and support;
- quality of discussion and relationships between Directors and management;
- strategic oversight and discussion;
- focus on risk and oversight of risk management and internal controls;
- effectiveness of management and succession planning; and
- oversight of talent management and development.

A review of the Chairman's performance was also completed as part of this process which supported the SID in leading an assessment of the Chairman's performance with the other Non-Executive Directors.

The Board has considered the 2019 review, which evidenced considerable progress from 2018, and has drawn up an action plan to be progressed throughout 2020. This will be reported on in the 2020 Annual Report & Accounts.

Statement of Directors' responsibilities

The Directors are responsible for preparing the Company's Annual Report. The Company's Annual Report comprises the Strategic Report, the Governance Report, the Consolidated Financial Statements, and some other information. The Directors are responsible for preparing the Annual Report in accordance with applicable law and regulations. The Directors are required by law to prepare the Annual Report for each financial year. The Directors have prepared the Annual Report in accordance with IFRS as adopted by the European Union and the relevant provisions of the Dutch Civil Code. The Directors must not approve the Annual Report unless they are satisfied that it gives a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period. In preparing the Annual Report, the Directors are required to:

- a) select suitable accounting policies and then apply them consistently;
- b) make judgements and accounting estimates that are reasonable and prudent;
- c) state whether applicable IFRS as adopted by the European Union and the relevant provisions of the Dutch Civil Code have been followed, subject to any material departures disclosed and explained in the Annual Report; and
- d) prepare the Annual Report on the going concern basis, unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose, with reasonable accuracy at any time, the financial position of the Company and the Group and enable them to ensure that the Annual Report complies with applicable law and, as regards the consolidated financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

With reference to section 5.25c paragraph 2c of the Dutch Act on Supervision, each of the Directors, whose names and functions are listed in the Governance section, confirm that, to the best of their knowledge:

- the Company's Financial Statements and the consolidated Financial Statements, which have been prepared in accordance with IFRS as adopted by the European Union and the relevant provisions of the Dutch Civil Code, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group;
- the Annual Report gives a true and fair view on the situation on the balance sheet date, the development and performance of the business and the position of the Company and the Group companies of which the financial information is included in the Annual Report and includes a description of the principal risks and uncertainties that the Company faces;
- having taken all matters considered by the Board and brought to the attention of the Board during the financial year into account, the Directors consider that the Annual Report, taken as a whole is fair, balanced and understandable. The Directors believe that the disclosures set out in the Annual Report provide the information necessary for shareholders to assess the Company's position, performance, business model and strategy.

After conducting a review of management analysis, the Directors have reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. For this reason, the Directors consider it appropriate to adopt the going-concern basis in preparing the Annual Report. Directors are also required to provide a broader assessment of viability over a longer period which can be found on page 55 (the "Viability Statement") of the integrated report and accounts. The Financial Statements on pages 121 to 223 were approved and signed by the Board on 31 March 2020.




Board of Directors



Board members by gender



Board Committee member

-  Nomination Committee
-  Audit Committee
-  Corporate Sustainability Committee

-  Remuneration Committee
-  Chair of Committee

Chairman

1. Herbert Cordt

Chairman and Non-Independent Non-Executive Director



Appointment date: October 2017
Nationality: Austrian

Herbert was Chairman of the Supervisory Board of RHI AG from 2010 until 2017, as well as Vice-Chairman from 2007 to 2010. He is Managing Partner at Cordt & Partner GmbH, his international boutique corporate finance consultancy, which advises clients on corporate finance matters, and for a time was a member of the cabinet of the Austrian Federal Finance Minister. In the course of his career he has held a variety of senior executive and managing director positions in telecommunications and financial institutions in European firms, providing a wide range of business acumen and international experience.

Herbert obtained a Doctorate in Law from University of Vienna, graduated from the Diplomatic Academy of Vienna and received a Master's of Science in Foreign Service from Georgetown University Washington D.C.

External appointments: Watermill Group Boston (Advisor), Cooper & Turner Group (Advisory Board Member), Quality Metalcraft / Experi-Metal, Inc. (Advisory Board Member), CORDT & PARTNER Management und Finanzierungsconsulting GesmbH (Managing Partner), Georgetown University, School of Foreign Service, MSFS Program (Advisory Board Member).

CEO

2. Stefan Borgas

CEO

Appointment date: October 2017
Nationality: German

Stefan was CEO at RHI AG from December 2016 until October 2017. Prior to that, he was president and CEO at Israel Chemicals Ltd and between 2004 and 2012, he was CEO at Lonza Group. In his early career, he worked at BASF Group, where he held various management positions. Stefan was elected as President of the World Refractories Association for a two-year term in January 2018.

Stefan has a business administration degree from the University Saarbrücken and an MBA from the University of St. Gallen-HSG.

External appointments: Non-Executive Director of SCR-Sibelco and owner of SB Industry LLC.

Chief Financial Officer

3. Ian Botha

Chief Financial Officer

Appointment date: April 2019
Nationality: South African / British

Ian has enjoyed a highly successful career with FTSE listed Anglo American plc in the related mining and metals industry for over 20 years. Whilst there, he held a variety of international executive roles including as Group Financial Controller and divisional Chief Financial Officer, and most recently as Finance Director of listed Anglo American Platinum. Ian has significant experience in finance and accounting, investor relations, strategy, M&A and governance, as well as excellent business acumen and a track record in financial and performance improvements.

Ian holds a Bachelor's degree in Commerce from the University of Cape Town and is a chartered accountant.

External appointments: none.

Non-Independent Non-Executive Director

4. David A. Schlaff

Non-Independent Non-Executive Director

Appointment date: October 2017
Nationality: Austrian

David was a member of the Supervisory Board at RHI AG from 2010 until 2017. Currently Chief Investment Officer and joint Managing Director at M-Tel, he has key management and supervisory experience in international financial and manufacturing institutions. He has undertaken roles at LH Financial Services Corporation and Forstmann-Leff Associates Inc., and he has held advisory and supervisory board positions at Latrobe Specialty Steel Company and A/S Ventspils Nafta.

David holds a Bachelor's degree in Business Administration from the Interdisciplinary Center Herzliya in Israel.

External appointments: M-Tel Holding GmbH (Chief Investment Officer and Joint Managing Director).

5. Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg

Non-Independent Non-Executive Director

Appointment date: October 2017
Nationality: German


Stanislaus was a member of the Supervisory Board of RHI AG between 2001 and 2017. He has been a member of Supervisory Boards for several 'Stadtwerke' (municipality owned utilities) and Didier Werke AG as well as undertaking senior executive roles, including CEO and Chief Financial Officer, in the energy industry, and numerous management roles within the EON group. He has also been a Director in the Investment Banking Division, at Deutsche Bank AG. He has deployed industrial knowledge combined with financial detail throughout his career.

Stanislaus holds a Sloan Fellows Master's in Business Administration from MIT Sloan School of Management and studied Business Administration and Economics at Université de Fribourg. He is a Chartered Financial Analyst (CFA).

External appointments: Supervisory Board member at Endurance Capital AG and Cognostics AG. CEO of STUV Steinbach & Vollmann Holding GmbH.

Board of Directors continued

Deputy Chairman

6. James Leng 
Deputy Chairman, SID and Independent
Non-Executive Director

Appointment date: October 2017
Nationality: British

James has been the Chairman of Corus Group plc, HSBC Bank plc and Nomura European Holdings plc over the course of his wide-ranging career in finance and manufacturing. Other directorships have included AON plc, Alstom SA, Pilkington plc, Hanson plc, IMI plc, TNK-BP and lead Non-Executive Director at the UK's Ministry of Justice. In an executive capacity, James was CEO of two publicly listed companies: Laporte plc, and Low & Bonar plc. His early career was spent at John Waddington plc, where he was Managing Director of a number of their subsidiaries. James brings with him extensive experience in listed environments and of corporate governance matters. He also has demonstrated knowledge and experience of all matters of general management, including manufacturing and supply chains.

External appointments: Guyll-Leng Charitable Trust, (Chairman), Frogmore Property (Advisory Board Director), AEA Investors (Advisory Board Director)

Independent Non-Executive Directors

7. Celia Baxter 
Independent Non-Executive Director

Appointment date: October 2017
Nationality: British

Celia was Director of Group Human Resources for Bunzl plc for 13 years. Prior to that she served as Head of Human Resources of Enterprise Oil plc, having been Director of Group Human Resources at Tate & Lyle plc. She started her professional career at the Ford Motor Company where she held several management positions and went on to provide consulting services in Human Resources at KPMG. She now holds a number of non-executive positions which deploy her detailed understanding of international businesses, human resources, remuneration, sustainability and related matters.

Celia holds a PhD and BSc in Botany from the University of Reading.

External appointments: Bekaert SA (Non-Executive Director), HR Tech LLP (Partner), and Senior plc (Senior Independent Director, Chair of Remuneration) and DS Smith plc (Non-Executive Director and Chair of Remuneration).

8. Janet Ashdown 
Independent Non-Executive Director

Appointment date: June 2019
Nationality: British

Janet has had a distinguished career working for BP plc for over 30 years, holding a number of international executive positions throughout the value chain. Until the end of 2012, Janet was CEO of Harvest Energy Ltd and throughout her career has provided leadership through change. Janet also has a wide range of board and committee experience as a Non-Executive Director, including the UK Nuclear Decommissioning Authority, a public body where she chairs the Safety and Sustainability Committee. Her experience in the energy sector has provided her with significant skills in general management, particularly in environmental & sustainability matters.

Janet holds a BSc in Energy Engineering from Swansea University.

External appointments: Non-Executive Director and Chair of Safety & Sustainability at Nuclear Decommissioning Authority UK, Non-Executive Director and Chair of Remuneration at Victrex plc, Senior Independent Director and Chair of Remuneration Committee at Marshalls plc.

9. John Ramsay 
Independent Non-Executive Director




Appointment date: October 2017
Nationality: British

John has held senior financial executive roles across the world, including serving as Chief Financial Officer of Syngenta AG, as well as being their Interim CEO for a period. John started with Syngenta AG as Group Financial Controller in 2000 and prior to that was Finance Head of Asia Pacific for Zeneca Agrochemicals. Earlier in his career he was a Financial Controller of ICI Malaysia and regional controller for Latin America. He started his career working in audit and tax at KPMG and his knowledge in accounting and finance provides valuable practical experience.

John is a Chartered Accountant and also holds an Honours Degree in Accounting.

External appointments: Koninklijke DSM N.V. (Supervisory Board Member), G4S plc (Non-Executive Director, Chair of Audit), Croda plc (Chair of Audit and Non-Executive Director).

Board committee member

-  Nomination Committee
 Audit and Compliance
 Corporate Sustainability Committee

-  Remuneration Committee
 Chair of Committee

Independent Non-Executive Directors

10. Wolfgang Ruttenstorfer
 Independent Non-Executive Director


Appointment date: October 2017
Nationality: Austrian

Wolfgang was a member of the Supervisory Board of RHI AG from 2012 to 2017, where he acted as the Interim CEO for six months, following the sickness-related absence of the CEO. He started his professional career in oil and gas at OMV, where he became CEO and then Chairman of the Management Board. He has held numerous supervisory board roles, including as Chairman, in industries such as telecommunications, real estate, healthcare and insurance. Wolfgang also served as Secretary of State in the Austrian Federal Ministry of Finance. His varied career brings a wide range of strategic and business management experience.

Wolfgang graduated from the Vienna University of Economics and Business.

External appointments: Supervisory Board member at: Flughafen Wien Aktiengesellschaft, NIS j.s.c. Novi Sad (to June 2019), Erne Fittings GmbH and Management Board member at CollPlant Holdings, Ltd (to December 2019).

11. Karl Sevelda
 Independent Non-Executive Director


Appointment date: October 2017
Nationality: Austrian

Karl progressed to CEO of Raiffeisen Bank International AG after being Deputy CEO and undertaking management roles in the Raiffeisen Bank group where he was responsible for corporate customers and corporate, trade and export finance worldwide. Prior to this, he held several senior management positions in Creditanstalt-Bankverein where he focused on corporate and export finance. Additionally, he has held the position of Secretary to the Federal Minister for Trade and Industry of Austria.

Karl holds a Master's and Doctorate Degree from Vienna University of Economics and Business.

External appointments: Supervisory Board member at: Siemens Aktiengesellschaft Österreich

SIGNA Development Selection AG, SIGNA Prime Selection AG, Liechtensteinische Landesbank AG

Crematories & Funerals AG, and Management Board member at Custos Privatstiftung

12. Andrew Hosty
 Independent Non-Executive Director


Appointment date: October 2017
Nationality: British

Andrew is an international business leader with over 15 years of non-executive board experience and 30 years of executive and management experience. Throughout his career he has held a number of senior executive roles primarily in specialist materials manufacturing, including Chief Executive of the Sir Henry Royce Institute for Advanced Materials and Chief Operating Officer at Morgan Advanced Materials plc. At the latter company he held a number of senior positions, including CEO of Morgan Ceramics. He was previously a Non-Executive Director of Fiberweb plc and has been President of the British Ceramics Confederation. Andrew provides technological and scientific expertise combined with practical and commercial insights. He also has a detailed understanding of Health & Safety best practice from his executive career.

Andrew is a Fellow of the Royal Academy of Engineering. He has a PhD in Engineering and a BSc in materials science.

External appointments: Senior Independent Director at James Cropper plc and Non-Executive Director at: Rights and Issues Investment Trust plc, Consort Medical plc (to February 2020), mOm Incubators Ltd.

13. Fiona Paulus
 Independent Non-Executive Director


Appointment date: June 2019
Nationality: British

Fiona has over 37 years' global investment banking experience, having held senior management roles with a number of leading international investment banks, such as Credit Suisse, Royal Bank of Scotland, Deutsche Bank and Citigroup. During her career, Fiona has led and managed a variety of global banking businesses, from start-ups to businesses with US\$ 4 billion in total revenues. Additionally, Fiona has advised companies in over 70 countries in the global energy & resources sectors on various strategic initiatives, including M&A, equity and debt financings, and risk management.

Fiona has a BA in Economics from University of Durham.

External appointments: Interpipe Group (Non-Executive Director), Redcliffe Advice (Managing Director).

Employee Representative Directors

14. Franz Reiter
 Employee Representative Director

Appointment date: October 2017
Nationality: Austrian

Franz has been with the Group since 1977 and is Chairman of the Group Works Council at Veitsch-Radex GmbH.

External appointments: none

15. Michael Schwarz
 Employee Representative Director

Appointment date: December 2017
Nationality: German

Michael has been with the Group since 1983 and is a member of the workers council at Didier Werke AG.

External appointments: none

Executive Management Team

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1. Stefan Borgas
CEO

2. Ian Botha
Chief Financial Officer

 For full biographies, see page 85

3. Gustavo Franco
Chief Sales Officer

Gustavo was appointed Chief Sales Officer in January 2019, prior to which he was Senior VP of Process Industries and Minerals. He joined Magnesita in 2001 as a Technical Marketing Engineer, after finishing his Bachelor's degree in Mechanical Engineering at the Federal Center for Technological Education of Minas Gerais and since then has developed his career in the refractory industry. Over the course of six years, he progressed through various sales managerial roles in South and North America and was part of the Executive Committee of Magnesita Refratários from 2015 to 2017. In 2018 he completed the Senior Executive Programme with the London Business School.

4. Thomas Jakowiak
Executive Vice President:
Integration and Project Management

After studying applied geosciences at the University of Leoben, Thomas started his professional career as a sales engineer with R&A Rost GmbH. In the year 2000, he joined the RHI Group and was soon put in charge of the sales management for the business unit in the Asia-Pacific region. Since 2005, he has been the Head of the Cement/Lime segment and was appointed to the Management Board of RHI AG as Chief Sales Officer of the Industrial Division at the beginning of the year 2016.

5. Simone Oremovic
Executive Vice President People
and Culture Management

Simone joined RHI Magnesita in an executive capacity in November 2017, and her role covers Human Resources, Culture and Corporate Communications. Simone has 20 years of experience in Human Resources. She started her career at General Electric where her main focus was on leadership and talent management, as well as Human Resources process. She is a certified Six Sigma Master Black Belt. She has held leading Human Resources roles in Telekom Austria Group, IBM Austria, and Baxter AG. Simone has a degree from the European Business School (Paris) and of the Economic University of Vienna.

6. Luis Rodolfo Bittencourt
Chief Technology Officer

Luis worked for Magnesita for 31 years and has held several positions in his career in the refractory and mining industry including Mining/ Geology Manager, Technical Purchasing Manager, Plant Manager, and R&D VP. He is currently President of Magnesita Refratários in Brazil and the Brazilian Refractory Producers Association. He holds a Bachelor's degree in mining engineering from the Federal University of Minas Gerais, a Master's degree in Metallurgical Engineering from the University of Utah, and a PhD degree on Ceramic Engineering from the University of Missouri.

7. Gerd Schubert
Chief Operations Officer

After completing his doctorate in mineral engineering at RWTH Aachen, Gerd started his career at Degussa AG, where he held several positions including: manager of a Brazilian plant, Technical Director and Plant Group Manager. Following the acquisition by Ferro Corporation, he managed the production and technology divisions as Global Operations and Restructuring Director. In early 2014, he took over the function of Chief Operating Officer at the Pfeleiderer Group and was appointed to the Management Board of RHI AG as Chief Operating Officer /Chief Technical Officer in January 2017.

8. Ticiana Kobel
General Counsel

Ticiana has extensive legal experience in a wide range of global businesses, such as SR Technics Group and Bühler Group, leading legal departments in manufacturing, aviation, technology, service sector and engineering industries. In these roles, she was in charge of crucial projects pertaining to varied matters, such as spin-offs, sales and acquisitions, and corporate governance issues, and assisted with the design and implementation of Compliance functions, mergers and acquisitions, and partnerships. Ticiana has a law degree with an emphasis in corporate law from Federal University of Minas Gerais and an LLM in International Economic Law and European Law at the University of Geneva.

9. Luiz Rossato
Executive Vice President
Corporate Development

Luiz joined Magnesita Refratários in 2008 as General Counsel, and in 2012 became Vice President of Legal, M&A and Institutional Relations, and member of the Executive Committee. He has worked in renowned international law firms in Brazil, including Mattos Filho and Quirga Advogados, where he specialized in M&A, Capital Market and Corporate Law transactions. He graduated in law at Mackenzie Presbyterian University in Brazil and in 2012 he received the "General Counsel of the Year — Latin America" award by the International Law Office and the Association of Corporate Counsel. In 2013, he attended the Advanced Management Program at Wharton University in the United States.

Nomination Committee report



Committee purpose and responsibilities

Principal duties

The purpose of the Committee is to support the Board in ensuring that the composition of the Board, and its committees, remains appropriate for the leadership needs of the Company in the context of an evolving external environment. Despite its long industrial heritage, in many ways RHI Magnesita is still a young company having only been listed on the London Stock Exchange since 27 October 2017. The Committee is focused in ensuring that the Board has the competencies and depth of skills at the Board table to meet the demands of a developing global business. At the heart of the Committee's work is an ongoing assessment of the Board's collective skills, knowledge, competencies and experience, whilst paying particular attention to independence and diversity. The Committee is now focusing on succession plans for Directors and other senior executives, whilst paying due regard to the benefits of diversity in both these teams.

Whilst all Board succession planning, processes and preparations are led by the Nomination Committee, these are very important Board topics, and as such appointments are agreed with the Board as a whole.

The UKCGC enables the Committee to ensure its activity was focused in the appropriate areas and its Terms of Reference were appropriately updated. Its programme during the year is summarised in the "Activities" section below.

Committee composition, skills and experience

The Nomination Committee was appointed by the Board and comprises three members, a majority of whom are independent Non-Executive Directors. The Nomination Committee comprises Herbert Cordt (Chairman), James Leng and Celia Baxter. The composition of the Nomination Committee is compliant with the UKCGC and the DCGC, and a summary of their skills and experience can be found on page 85 to 87.

Dependent on the specific nature of the issue being considered by the Committee, when requested, other members of the Board and Executive Management Team attend meetings of the Committee and provide input.

Attendance at Nomination Committee meetings in 2019:

Member	Attended
Herbert Cordt	4/4
Celia Baxter	4/4
James Leng	4/4

Activities during the year

In 2019 the Committee considered a number of matters, including Board Committee composition, the time commitment required from Non-Executive Directors ("NEDs"), the Board profile, including the required skills of key Board roles, and succession planning, together with Board diversity and independence. In addition, the Committee led the process of reviewing progress against the Board actions identified in 2018 as part of the Board review and also led the process for the 2019 evaluation programme.

Committee composition

In the year under review, the Nomination Committee, in consultation with the respective Chairmen of the Audit & Corporate Sustainability Committees, considered their membership in view of the new Directors appointed in 2019. Considering the skills and experience of each Director, Fiona Paulus was appointed to the Corporate Sustainability Committee upon her formal appointment in June and joined the Audit Committee in September. Andrew Hosty, with his substantive industrial and technical experience, continued as a member of the Corporate Sustainability Committee and to sit on the TAC as an observer, stepping down from the Audit Committee.

Time commitment from NEDs

An important part of the UKCGC is that the Non-Executive Directors dedicate sufficient time to meet their Board responsibilities. The Committee considered, as it does annually, the review of time required from the Non-Executive Directors to fulfil their duties satisfactorily, which it was happy to confirm that they did.

Board profile and role profiles

In compliance with the DCGC, the Nomination Committee considered and recommended for publication on the Company's website, the 2019 Board profile. This covers the required skills, experience, composition and expertise of the Board Directors with reference to the needs of the Company, ensuring that these were represented on the Board. The Committee was pleased to conclude that these needs were indeed represented in the Board as a whole.

Additionally, the Committee reviewed the roles of the CEO, Chairman of the Board and the Senior Independent Director and Deputy Chairman. These were approved by the Board and are now published on the Company's website.

Succession planning

Over the course of the year, the Committee initiated a comprehensive succession planning programme, specifically in relation to all senior management to meet the Company's needs as it develops internationally with its product and customer service capabilities.

Board Diversity

As highlighted above, the Committee supports the Board in pursuing its diversity agenda. Whilst the Board currently enjoys a rich mix of nationalities, gender, skills, experience and expertise and notwithstanding the considerable progress that has been made, the Board recognises that it has further to go, specifically in having one third of female Directors. It is planned that this will be achieved during 2021. This recognizes that the Board is still a young one, in terms of appointments, and to avoid disruption to the successful operation of the Board which has been developed over the past two years, an evolutionary approach would be beneficial.

All new Board appointments are, and will continue to be, made on merit and underpinned by the specific skills and experience which candidates can bring to the overall Board composition. As outlined in the Chairman's introduction to the Corporate Governance section, the appointment of Janet Ashdown and Fiona Paulus in 2019 exemplified this approach. In addition to increasing female representation on the Board to 23%, half of the Board Committees are now chaired by women. In addition, the gender representation on our Executive Management Team and their direct reports has grown to 17%, an increase of 5% in the year.

The Committee continued to play a key role in formulating the diversity agenda within the Boardroom and the wider company. In addition to increasing female representation on the Board and the Executive Management Team, RHI Magnesita, with operations in 39 countries, is enriched by a variety of talent with international experience and varied expertise. The Committee, and the Board, will continue to support this approach to people development, ensuring that talent, regardless of gender and background, enjoys career progression within RHI Magnesita. We are convinced that this will play a key role in supporting our business strategy over the long term for the benefit of the Group and its shareholders. More details on the Group's Diversity and Inclusion work and the gender balance of those in the senior management and their direct reports can be found on pages 70 to 71.

Board Evaluation

In 2018 the Nomination Committee led the design and introduction of a three-year independent Board review programme. The outputs of this first review were diligently considered by the Board and several changes were introduced. These changes included improvements to the information flow to Directors, assisting in their ability to debate and challenge the executive. The Directors' interaction with the management team was also further developed.

The Committee also led the preparation for the 2019 review, the second year in this programme. Again, externally facilitated, the review for the Directors also included the wider Executive Management team. This year's review was complemented with individual and confidential, personal interviews with each Director. The Board received a presentation of the review, debated the findings, and agreed a programme for the year ahead with a view to further improving its effectiveness. More detail can be found on page 83 as to the matters considered and the response to actions.

Herbert Cordt
Chair of Nomination Committee

Corporate Sustainability Committee report



Meeting attendance during 2019

Member	Attended
Janet Ashdown (Chair)	3/3
Fiona Paulus	3/3
Andrew Hosty	3/3

In 2019, the new Corporate Sustainability Committee met formally three times following the AGM, where two of its members were appointed by shareholders.

The Committee will meet regularly each year to help steer the Company in a rapidly changing business environment.

Activities during the year

As chair of the new Corporate Sustainability Committee, I'm delighted to report on progress during the year.

Set up in early 2019, the Committee's first priority is to steer the Company on its path to decarbonisation. The climate crisis is the defining challenge of our time and its severity and urgency became ever more apparent in 2019. Our goal is to ensure that RHI Magnesita can transition and succeed in a low-carbon economy. To do so, we must assess and respond to climate risks and opportunities as they evolve. In addition, we must continue to challenge our level of ambition. In 2019, for example, we effectively doubled our target, from 10% (Scope 1 and 2 emissions) per tonne of production to a target of 15% which also includes Scope 3 emissions from raw materials, a leader in the refractories industry.

Since emissions in our value chain, especially among steel and cement industries, can be greater than our direct emissions, we are evolving our business model to offer full-service solutions. Through low-carbon products, recycling and other services, we can help customers to significantly reduce their energy use and associated emissions. We are partnering with customers, universities and others to develop the technologies needed to decarbonise heavy industries. Lastly, we aim to communicate our progress transparently and are assessing how we can report against the Taskforce on Climate-Related Financial Disclosures ("TCFD"). We were pleased to receive a C for our first climate submission to the CDP (formerly the Carbon Disclosure Project).

Health and Safety is another key focus area for the Committee and 2019 saw our best LTIF performance. Nevertheless, we cannot afford even the slightest complacency. I am

extremely sad to report that we experienced two fatalities during the year. In Brazil, an employee died following medical complications after an occupational accident, while in Turkey, an accident while unloading raw materials led to the death of a contractor. Loss of life is unacceptable in the course of our business. We have thoroughly investigated both cases and taken corrective action to minimise similar risks in future.

A third area of Committee focus during 2019 has been to improve gender diversity in the Company. We have committed to achieve 33% female representation on our Board and among senior leadership. With three women Directors, the Board is close to achieving our target, but the number of women in senior leadership has not yet kept pace. This may be partly explained by our recent merger and the challenges of building a new corporate culture, as well as the male-dominated nature of our industry. Yet this makes us even more determined to effect change. Significant work is underway to listen to our new women's network and to modify ways in which we recruit, retain and promote women.

Climate action, Health and Safety and gender diversity were deemed our most significant issues following a process of stakeholder engagement and materiality analysis. We also address a range of environmental and social issues, from air emissions to human rights and community investment. In addition, we are working to embed sustainability into our business, ensuring we have the right governance structures and processes, metrics, strategies and targets in place.

During the first year of the Corporate Sustainability Committee, we have built strong foundations and made significant progress on most fronts. I would like to thank my fellow Directors, the Sustainability Steering Committee and Executive Management Team for their hard work, as well as the many stakeholders who have provided valuable feedback and support. As we continue our journey, we aim to remain a trusted and valued partner whether as an employer, supplier or member of the communities in which we operate.

Janet Ashdown

Chair of the Corporate Sustainability Committee

Audit Committee report



We are pleased to present the Audit Committee report for the year-ended 31 December 2019. The Committee continues to ensure the integrity and transparency of corporate reporting, that external audit remains independent and it evaluates the robustness of internal controls and risk management processes.

The Audit Committee advises the Board in relation to the financial reporting process, risk management and its other responsibilities and prepares resolutions of the Board in relation thereto. The main responsibilities of the Audit Committee focus on activities of the Board with respect to:

- supervising and monitoring the effect of internal risk management and control systems, including supervision of the enforcement of the relevant legislation and regulations, and supervision of the effects of the Code of Conduct;
- advising the Board on the Group's overall risk appetite and tolerance;
- overseeing and advising the Board on the current risk exposures of the Group and future risk strategy;
- supervising the recording, management and submission of financial information by the Group (including choices of accounting policies, application and assessment of the effects of new rules, information regarding the handling of estimated items in the Financial Statements);
- reviewing the content of the Annual Report and Accounts and advise the Board on whether, taken as a whole, it is fair, balanced and understandable;
- supervising the compliance with recommendations and observations of the internal auditor and the external auditor;
- supervising the functioning of the Internal Audit department, and in particular, review and approve the annual Internal Audit work plan and taking note of the findings and considerations of the Internal Audit department;
- supervising the policy of the Group on tax planning;
- supervising the financing of the Group;
- reviewing the adequacy and effectiveness of the Group's Compliance function;
- supervising the relationship with the external auditor, including in particular, assessing its independence, effectiveness, remuneration and non-audit related work for the Group;

- recommending the appointment of an external auditor by the General Meeting; and
- maintaining regular contact with and supervising the external auditor.

Composition and Governance

The Committee is governed by terms of reference reviewed annually by the Committee for recommendation to the Board for approval. It executes its duties and responsibilities in line with these terms of reference for the Group's accounting, financial reporting practices and finance function, external audit, Internal Audit and internal control, integrated reporting, risk management and IT (information and technology) governance.

The Audit Committee comprises three members, all of whom are considered independent Non-Executive Directors. Appointments to the Committee are made by the Board. The Board has satisfied itself that the Committee's membership includes Directors with recent and relevant financial experience.

The members of the Committee that served during the year 2019 were:

Member	
John Ramsay	Chairman
Wolfgang Ruttenstorfer	Member
Andrew Hosty (until 24 September)	Member
Fiona Paulus (since 24 September)	Member

Meetings attendance

The Committee meets as required, but not less than four times a year. The Chairman, the Chief Executive Officer, the Chief Financial Officer, the Head of Financial Reporting, the Head of Assurance and the General Counsel also participate in Audit Committee meetings, and the Company Secretary acts as Secretary to the Committee. The Chairman of the Committee has had regular private discussions with the external auditor, the Head of Assurance and the Chief Financial Officer during the year.

Audit Committee report continued

During 2019, the Committee met six times and had three calls. The Committee has also met twice since the end of the financial year and prior to the signing of this Annual Report. The external auditors had unrestricted access and attended all Committee meetings and calls.

	Attended
John Ramsay	9/9
Wolfgang Rutenstorfer	8/9
Andrew Hosty (until 24 September)	8/8
Fiona Paulus (since 24 September)	1/1

Fair, balanced and understandable

A key requirement of our Financial Statements is for the report to be fair, balanced, understandable and provides the information necessary for shareholders to assess the Group's position, performance, business model and strategy. The Audit Committee and the Board are satisfied that the 2019 Annual Report meets this requirement, as appropriate weight has been given to both positive and negative developments in the year.

In justifying this statement, the Audit Committee has taken into consideration the preparation process for the Annual Report and Accounts, including:

- detailed timetable and instructions are provided to all contributors;
- revisions to regulatory reporting requirements are provided to contributors and monitored on an ongoing basis;
- early-warning meetings are conducted between finance managers and the auditor in advance of the year-end reporting process;
- external advisers provide advice to management and the Audit Committee on best practice with regard to creation of the Annual Report;
- Audit Committee meetings were held in February and March 2020 to review and approve the draft 2019 Annual Report and Accounts in advance of the final sign-off by the Board;
- review of significant accounting matters as explained in the notes to the consolidated Financial Statements; and

- the Audit Committee considered the conclusions of the external auditor over the key audit matters that contributed to their audit opinion, specifically impairments, taxation and IFRS 16 first time adoption.

Significant issues considered by the Audit Committee in relation to the Group's Financial Statements

Going concern

The ability of the Group to continue as a going concern depends upon continued access to sufficient financing facilities. Judgement is required in the estimation of future cash flows and compliance with debt covenants in future years. The Committee assessed the forecast levels of net debt, headroom on existing borrowing facilities and compliance with debt covenants. This analysis covered the period to 31 December 2021 and considered a range of downside sensitivities, including the impact of lower production volumes and higher costs. The Committee concluded it was appropriate to adopt the going concern basis.

Production Optimisation Plan

The Group is enhancing its Production Optimisation Plan in order to increase competitiveness and reduce its cost base. The Committee reviewed the judgements involved in the determination of the amounts and timing of impairments and restructuring provisions. Following discussion, the Committee concluded that these were appropriate. The disclosures on impairments and other restructuring expenses can be found in Note 39 to the Financial Statements.

Use of supply chain finance programmes

The Committee reviewed the accounting practice for supply chain finance programmes in place and appropriateness of disclosures in the Annual Report. The Group decided to limit the overall supply chain finance programmes to €320 million. The disclosures related to factoring and forfeiting can be found in Notes 19 and 32 to the Financial Statements.

First time adoption of IFRS 16 – Leases

The Committee reviewed management's impact assessment of the adoption of IFRS 16 Leases which became effective in 2019 and resulted in initial recognition of lease liabilities and the right-of-use assets amounting to €62 million. The Committee considered the disclosures in the notes to the Financial Statements prepared by

management to explain the transition impact and concluded that these were appropriate.

Payment of the dividend

The committee reviewed the proposal for the dividend, and following discussion, endorsed the proposal for final approval by the Board.

Alternative performance measures Adjusted EBITA and Adjusted EPS

RHI Magnesita uses a number of alternative performance measures ("APMs"), which reflect the way in which Management assesses the underlying performance of the business. The Group's APM policy defines criteria for calculation of Adjusted EBITA and Adjusted EPS. The Committee reviewed each of the adjustments made in Adjusted EBITA and Adjusted EPS and concluded that the calculation is made in line with the APM definition.

Significant issues considered by the Audit Committee

Audit Committee evaluation

An internal evaluation of the performance of the Audit Committee has been undertaken. This review concluded that the Audit Committee has been operating effectively based on the subject matters covered, the nature of the Committee meetings, thoroughness of approach and the business understanding, skills and experience of the Committee members.

Capital structure, financing and FX strategy

The Committee reviewed the revised treasury policy and assessed the effectiveness of financial risk management. During the year the Group improved its financing structure by restructuring inter-company debt, extending the debt maturity profile, refinancing legacy high cost debt, increasing the level of liquidity and increasing the EUR debt profile in order to reduce interest and currency exposure. Depending on its leverage the Group will keep between 40% and 100% of its interest rates floating. The Committee endorsed the proposed currency and liquidity strategies.

Tax strategy

The Committee reviewed the tax strategy and received updates on tax compliance, significant tax matters and ongoing tax projects. The Committee considered management's risk assessment related to the Brazilian tax litigation. Following discussion, the Committee endorsed the current tax strategy and will continue to monitor the progress of the tax projects.

Reviewing the results of Internal Audit work and the 2019 plan

The Committee reviewed the effectiveness of the resources of the Internal Audit department and concluded that the Internal Audit function is effective and has adequate resources. Based on the received reports on the results of Internal Audit work, the Committee satisfied itself that the 2019 plan was on track and discussed areas where control improvement opportunities were identified further, and the Committee reviewed the progress in completion of agreed management actions. The Committee reviewed the proposed 2020 Internal Audit plan, assessing whether the plan addressed the key areas of risk for the business units and the Group. The Committee approved the plan, having discussed the scope of work and its relationship to the Group's risks.

Code of Conduct

The Committee reviewed progress of the implementation of the Code of Conduct that was rolled out across the Group starting in 2017. The Committee received updates on governance of the Code, ethical risk assessments performed, and training provided. The Committee assessed the work being conducted to mitigate the risk of bribery and corruption and, specifically, work to assess risk from use of agents, approving plans to strengthen risk mitigation in this area.

Risk Management

Risk management is the responsibility of the Board and is integral to the achievement of our objectives. The Board establishes the system of risk management, setting risk appetite and maintaining the system of internal control to manage risk within the Group. The Group's system of risk management and internal control is monitored by the Audit Committee under delegation from the Board. Details of the Group's risk management approach, risk appetite and principal risks are outlined in the Risk, viability and internal control section of the Annual Report.

Whistleblowing programme

The whistleblowing programme, which is monitored by the Audit Committee, is designed to enable employees, customers, suppliers, managers or other stakeholders to raise concerns on a confidential basis where conduct is deemed to be contrary to our values. During 2019, 79 reports were received via the global whistleblowing programme, covering a broad spectrum of concerns, including:

- People and culture
- Fraud and security
- Health and Safety
- Conflicts of interest

The majority of reports were received on an anonymous basis. All of the cases received in 2019 were investigated and all the proven cases resulted in some form of management action.

External audit

The Group's external independent auditor, PricewaterhouseCoopers Accountants N.V. (PwC), were first appointed as the Group auditor at the Annual General Meeting held on 4 October 2017 shortly before the listing of the newly formed RHI Magnesita NV. This was the first tender the Company had undertaken. PwC was appointed at the AGM held on 6 June 2019 for the financial year 2020. The Committee approved the audit plan together with the audit fee in November 2019 having given due consideration to the audit approach, materiality level and audit risks. The Committee received updates during the year on the audit process, including how the auditor had challenged the Group's assumptions on the issues noted in this report. In March 2020, the Committee reviewed the output of the external audit work that contributed to the auditor's opinion, and its overall effectiveness.

External auditor's independence

The external independent auditor reports to the Committee on the actions taken to comply with professional and regulatory requirements, as well as best practice designed to ensure its independence. The Committee recommended that PwC and Esther van der Vleuten should continue as the external independent auditor and designated auditor for the financial year 2020.

In 2019, the Group revised its non-audit services policy which further strengthens auditor's independence. The new policy is consistent with the applicable EU Directive, Dutch and UK legislation and guidance, including

recommendations set out in the Financial Reporting Council's (FRC's) Guidance on Audit Committees (2016) and the requirements of the FRC's Revised Ethical Standard (2016).

A key factor that may impair an auditor's independence is a lack of control over non-audit services provided by the external auditor. The external auditor's independence is deemed to be impaired if the auditor provides a service that:

- creates conflicts of interest between the external audit firm and the Group;
- results in the external audit firm functioning in the role of management;
- results in a fee which is material relative to the audit fee;
- places the external audit firm in the position of auditing its own work; or
- places the external audit firm in the position of being an advocate for the Group.

RHI Magnesita addresses this issue through three primary measures, namely:

- disclosure of the extent and nature of non-audit services;
- the prohibition of selected services; and
- prior approval by the Audit Committee of non-audit services where the cost of the individual engagements being more than €15,000, and cumulatively more than €60,000 per annum.

The definition of prohibited non-audit services corresponds with the European Commission's recommendations on the auditor's independence and with the Ethical Standards issued by the Audit Practices Board in the UK. Non-audit work is only undertaken where there is commercial sense in using the auditor without jeopardising auditor independence; for example, where the service is related to the assurance provided by the auditor or benefits from the knowledge the auditor has of the business. Non-audit fees represented are disclosed in Note 60 of the Financial Statements.

The Group confirms compliance during the year with the provisions of the Competition and Markets Authority Order on mandatory tendering for the appointment of the external auditor and Audit Committee responsibilities.

John Ramsay
Independent Non-Executive Director

Remuneration Committee report



Dear Shareholders

I am pleased to present the Report of the Remuneration Committee for the financial year ended 31 December 2019, providing a summary of the Committee's work during the year, as well as the context for the decisions made.

RHI Magnesita, being incorporated and registered in the Netherlands, making it subject to Dutch corporate law, and having its primary listing on the London Stock Exchange, is required to comply with both UK and Dutch reporting requirements and their respective Corporate Governance Codes. Our Remuneration Report is therefore presented on this basis and, recognising transparency of reporting, includes certain additional voluntary disclosures.

We were pleased that at the 2019 Annual General Meeting ("AGM") the resolution relating to the Annual Statement and Report on Remuneration was once again approved by more than 99% of our voting shareholders. The Directors' Remuneration Policy, which was approved at the 2018 AGM, is intended to operate until 2021 and, as previously disclosed, has applied since 1 January 2018.

We will be bringing a revised Directors' Remuneration Policy for consideration at the 2021 AGM. During 2020, we will be considering whether our policy continues to suit the strategy of the Company, takes into account key stakeholders and assists in retaining and rewarding talent appropriately. As part of this process we will, in the year ahead, be consulting shareholders on any key changes proposed.

Remuneration is closely aligned with our strategy and culture

Our Remuneration Policy continues to be closely aligned to, and supportive of, our strategy and culture. The objective of combining two companies in 2017 to form RHI Magnesita was to capture the strengths of each entity, leading to an enlarged portfolio of products and services, greater proximity to customers through a broader geographical footprint, technology leadership, as well as more effective raw material integration. Our remuneration policy and practices are in line with these objectives, with bonus plans that incentivise growth, cash flow generation and the achievement of synergy targets and strategic projects.

In 2019, the bonus structures and targets for management throughout the Company have been revised to reflect those of the executive and senior management. This provides a clear line of sight of company objectives, supports the building of the new organisational culture, further foster teamworking, and incentivises appropriate behaviours and the success of our workforce.

Our LTIP rewards the creation of shareholder value and profitability. Total shareholder return ("TSR"), EPS and economic profit measures were implemented as LTIP KPIs in 2019 to incentivise the creation of long-term value. As referred to later, the performance shares awarded are held for three years before vesting with a further two-year holding period for the EMT.

RHI Magnesita's performance during 2019

As laid out in the Chairman's Statement and the Chief Executive Officer's Review, despite difficult end markets in 2019, the Group has recorded resilient margins, solid balance sheet position and strong cash flow generation. Furthermore, management completed the planned and successful final phase of the integration of RHI and Magnesita, delivering €90 million of planned synergies. It has been within this context that the Committee has considered the Annual Bonus scheme, the 2019 outturn and the 2020 targets, as well as reviewing current LTIP performance, in addition to other decisions made in the course of the year. Further details of these activities are outlined below.

Incentive outcomes for the year

As set out in the Annual Report on Remuneration, our remuneration outcomes for the year were as follows:

Annual Bonus Plan

Awards for the year for the CEO and CFO at 38.9% of maximum reflect the performance of the Company during the year. The operating EBIT decreased by 4.4%. Executives made good progress against the strategic deliverables that are essential for the future efficiency of the Company and the synergy targets were met. The Company generated €285 million of free cash flow. Further details of our performance against 2019 bonus targets can be seen on pages 112 and 113, including the way that the cash flow targets were adjusted on a neutral basis to reflect the change in strategy on working capital management. The payout against the strategic deliverables is measured against preset mainly quantified targets such as dates, volumes or monetary values.

As a part of the changes made to meet the requirements of the UK Corporate Governance Code, for 2019 and future years, the Committee decided to replace the specific underpin that related only to the strategic targets with an overarching discretion to adjust, if appropriate, the formulaic outturn for all of the bonus measures. Accordingly, the Committee reviewed the formulaic calculation of the bonus in the context of the overall performance of the Company and the executives over the relevant period. The bonus payout is materially lower than last year's, and the Committee is satisfied that it is at the appropriate level given the targets that were set and the performance achieved.

Performance Share Plan

There were no long-term incentives subsisting at the time of Admission. The first performance shares under the new long-term incentive plan were awarded in 2018 and are not due to vest, subject to performance, until 2021.

Key Committee activities during 2019

In addition to the responsibilities of the Committee (which are described in the Terms of Reference available on the Company's website), the Committee spent time on the following matters during the year:

Further development of the Remuneration Report

2018 represented the first full year of remuneration reporting for the Company, with the 2017 report only covering the period from the date of Admission (27 October 2017 to 31 December 2017). The 2019 Remuneration Report is the first where year-on-year comparators exist for a full 12 month period. Our Remuneration Reporting is complex due to the need to comply with both Dutch and UK regulations. We have endeavoured to improve reporting this year to increase transparency and improve clarity.

Remuneration related to the change of the Chief Financial Officer ("CFO")

Ian Botha joined the Company in April 2019. His remuneration package is in line with the Company's new Remuneration Policy. The CFO's remuneration package was benchmarked against the UK market. Ian Botha was recruited from Anglo American and held a variety of long-term incentives that lapsed when he left Anglo American. In line with the Company's remuneration policy, the Committee offered share-based remuneration to mirror part of the forfeited long-term incentives of his previous employer, taking account of the potential vesting. The CFO received three share grants during the year: conditional shares to buy-out deferred share awards, performance shares to buy-out forfeited performance share awards and an annual performance share award. Full details of the new CFO's remuneration package can be found on pages 99 and 111.

The past CFO, Octavio Lopes, left the business on 31 December 2018. As previously reported, no payments were made for loss of office.

Governance developments

As referred to above, RHI Magnesita is required to comply with both UK and Dutch reporting requirements, including the UK and Dutch Corporate Governance Codes. The 2018 UK Corporate Governance Code came into effect for RHI Magnesita on 1 January 2019. Dutch reporting requirements have also been updated to implement the EU Shareholder Rights Directive. Our Remuneration Policy and remuneration practices already broadly comply with both governance updates. With the current Policy due to be renewed at our 2021 AGM the Committee intends to undertake a review of the Remuneration Policy in 2020.

Context of Director pay within the Company

CEO Pay ratio

In 2018 and 2019 in line with Dutch regulations and market practice we disclosed the pay ratio of the CEO to the average salary of all employees in the Group. Similarly, on page 107 this year's ratio of 34:1 is calculated on the same basis (2018: 49:1). The current CEO pay ratio is lower than other similar manufacturing companies with relatively high levels of blue collar workers. The Committee however is aware that as currently no long-term incentives have vested, if the 2018 LTIP vests in 2021 the CEO pay ratio will increase more towards the median of similar manufacturing companies. More detail on the calculation of the ratio is included on page 107.

UK gender pay gap

Although there is no requirement to report on gender pay in the UK, the Committee has reviewed the proportion of women throughout the organisation and their relative positions within the organisation structure. The Committee is aware that around 11.6% of the global workforce is female and female representation in supervisory and managerial roles is an even lower proportion. Both of these issues are being addressed. The Board and leadership team recognise that inclusion and diversity in all forms are essential ingredients in creating diversity of thought, experience and skills within the Company and it has been a topic of consideration at Board and Executive management meetings (you can read more on the Company's approach to diversity on pages 70 to 71).

Employee engagement

Two employee representatives, normally based in Germany and Austria, sit on the Company's Board and take part in discussions regarding executive remuneration when the Remuneration Committee reports back to the Board and makes recommendations for Board approval. A variety of other engagement activities take place across the Company including employee surveys, CEO calls, regular townhall meetings and an active CEO Channel, as part of the My RHI Magnesita App, where employees can ask questions on any issues including executive pay. Further details on workforce engagement can be found on pages 79 and 105.

Remuneration Committee report continued

Alignment of pension contribution

Our incumbent Executive Directors' pension allowance (and that for any new appointments) is aligned to that of the workforce in their country of appointment.

Implementation of the Remuneration Policy for 2020

In the early part of 2020, the Board had concerns regarding the retention of its Executive Directors. The Board think that it is crucial to maintain continuity of leadership over the next critical period of the Group's development. We reached out to our key shareholders to gain support for a re-alignment of our reference markets for the Executive Directors' pay, using Germany as the more relevant market than the UK, being the key region where we compete for talent. The resultant salary increases are within our policy, being within the mid-market range, but nonetheless we felt it would be more transparent to consult with leading shareholders to explain our approach. The consultation provided very useful engagement and I remain grateful for shareholders' time and input.

The base salary of the CEO was increased by 20% and the CFO's base salary was increased by 20% with effect from 1 January 2020. Both of these executives are employed in Austria and this compares with an average of 3.6% for the majority of Austrian based employees. As detailed in our engagement with shareholders and referred to above, the Executive Director increases arose from the amendment of the reference market.

The bonus metrics and weightings were reviewed for 2020. Given the strong progress on the achievement of synergies, the Committee decided to remove the synergy metric for the 2020 annual bonus. The Committee is very conscious of the uncertainty that COVID-19 is creating and at the date of this report the bonus metrics had not been finalised. These metrics will reflect both the strategic needs of the business and the Policy, which requires a minimum of 70% to be weighted to financial metrics. The performance metrics and targets for the annual bonus will be disclosed retrospectively in the 2020 Remuneration Report provided they are not considered to be commercially sensitive at that time. The 2019 annual bonus targets are retrospectively disclosed on page 113.

In 2020, the Committee does not plan to change the quantum of the CEO and CFO's long-term incentive performance share awards with a face value of 200% and 150% of salary, respectively. The awards are not made until April 2020 based on the share price at that time. Executives will receive the award in 2025 (subject to a three-year vesting period and two-year holding period), if performance targets are met. The performance targets that will determine vesting of the share awards, will be based half on adjusted earnings per share ("EPS") targets, and half on Total Shareholder Return ("TSR"). For 2020 the Committee decided that Economic Profit was not a suitable measure as the setting of targets for the three year period would be too difficult in the current business environment. The Committee has the ability to scale back the level of vesting if it considers the outcome to be reasonably unacceptable or if it is not reflective of the underlying performance of the Company.

The Chairman's fee was considered by the Committee and in line with the Remuneration policy, against both the Non-Executive market and the workforce increase. As the Chairman's fee had not been reviewed since 2017, the Committee agreed an uplift in line with the workforce increases in Austria over the last two years. In future it is the intention to review the Chairman's fee on an annual basis. The Non-Executive fees were not considered by the Committee as no individual should be involved in their own remuneration, however the Chairman took a similar approach when reviewing the Non-Executive fees. Further details of the increases awarded can be found in the Directors' remuneration table.

Just prior to signing of this report the Executive Directors decided, from 1 April, to waive the 20% salary they were awarded in 2020 for at least three months. During this time members of the Executive Management Team will waive 10% of their salary, the Chairman and the Non-Executive Directors will waive 10% of their fees and employees globally will likely see a reduction in their earnings. The Committee is very grateful for the responsible action being taken by the Executive Directors and members of the Executive Management Team, as well as all of our employees who are taking actions at this difficult time.

Conclusion

We believe that the Directors' Remuneration Policy and its implementation for 2020, as well as the remuneration outcomes for 2019 remain strongly aligned to the Company's business strategy, the complex structure of the business and long-term shareholder interests.

At the 2020 AGM an advisory shareholder resolution to approve this Annual Statement and the Annual Report on Remuneration will be presented to shareholders and we look forward to your continued support.

Celia Baxter
Chairman of the Remuneration Committee

At a glance: Operation of remuneration policy for the financial year ending 31 December 2019

Policy element	S Borgas (CEO)	I Botha (CFO)
Base salary from 1 January 2019	€855,000	€375,000 ¹
% increase from prior year	3.5%	0%
Retirement allowance	Allowance of 15% of base salary	Allowance of 15% of base salary
Annual bonus	Up to 150% of base salary	Up to 150% of base salary
Annual bonus metrics	75% of the annual bonus determined by Group financial targets and 25% by strategic targets as follows: 35% Operating EBIT measured on a constant currency basis; 30% Free Cash Flow; 10% Synergy targets and 25% strategic targets focusing on key strategic priorities of the business which are critical to the future profitability of the Group. The Committee used its discretion to review the underlying performance of the Company and determine whether there should be any adjustment to the formulaic outcome.	
Amount paid for threshold performance	0%	0%
Amount paid for target performance	75% of salary (50% of max. annual bonus)	
Actual bonus result for 2019 performance	€498,354 (38.9% of maximum)	€218,576 (38.9% of maximum)
Payment of bonus in shares	50% of annual bonus in excess of target after tax is used by the executive to acquire shares that are held for a minimum of three years	
Performance Share Award	200% of base salary	150% of base salary
Performance Share Award metrics	33.3% of the award: relative TSR ranking 33.3% of the award: Economic Profit Growth 33.3% of the award: Adjusted EPS	
Payment for threshold performance	25%	
Performance period & post vesting holding period	3 years and 2 years respectively	
Malus and clawback	Malus applies to the period prior to vesting for Performance Share Awards and payment of the annual bonus Clawback applies to cash bonus and Performance Share Awards for a period of three years following the date of vesting and three years following any cash payment	
Dividends on vested awards	Participants are eligible for dividend equivalents on Performance Shares awarded	
Shareholding requirement	200% of base salary to be met within five years	
Shareholding as % of salary at 2019 year-end	75%	75% ²

¹ Part year, the CFO joined the Company on 1 April 2019, his full-year annual salary is €500,000.

² Calculated assuming a tax rate of 50%.

Directors' Remuneration Policy

This Directors' Remuneration Policy was approved by over 99% of voting shareholders at the June 2018 AGM.

Other than in the event of exceptional circumstances, the Committee does not intend to revert to shareholders with a new Remuneration Policy before the end of the three-year period at the 2021 AGM.

Policy overview

The Remuneration Committee has responsibility for determining the remuneration for the Chairman and Executive Directors.

The aim of the Company's remuneration strategy is to provide a level of fixed pay that, together with incentives, will attract, retain and motivate high-calibre, high-performing executives, aligning them to the long-term performance of the Company and its long-term share performance while rewarding them for creating and delivering shareholder value.

The remuneration policy has been structured in line with market practice for UK-listed companies, while taking into account the legacy issues and Dutch law. Dutch governance requires some additional information on the remuneration which is set out in the Remuneration Report on page 110.

Certain aspects of our current policy are only applicable to our past CFO, Octavio Lopes, reflecting the historic structure of his remuneration and legacy contract. However, Octavio Lopes left the Company on 31 December 2018 and these aspects of the Policy are therefore no longer applicable and will be removed when the Policy is brought to shareholders for approval in 2021 and are noted below for ease of reference. The new CFO's remuneration is in line with the ongoing new Remuneration Policy.

The remuneration policy for Executive and Non-Executive Directors

For ease of reference we have included on pages 101 to 103 the remuneration policy for the Executive Directors and Non-Executive Directors. We have emboldened sections of the Policy that related to the legacy arrangements for our past CFO who left the Company on 31 December 2018 and which are not applicable going forward.

Please note, in the policy we have highlighted parts that were only legacy items for our past CFO, which are not applicable going forward.

Policy table for Executive Directors			
Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
Base salary To assist in the recruitment and retention of appropriate talent. To provide a fair fixed level of pay commensurate for the role ensuring no over reliance on variable pay.	Salaries are paid monthly and reviewed annually. The Company's policy is to set salaries at mid-market levels taking into account salaries at companies of a similar size by market capitalisation, revenue and any other factors considered relevant by the Committee such as international business mix and complexity. Decisions on salary are influenced by: <ul style="list-style-type: none"> • The performance and experience of the individual • The performance of the Group • The individual's role and responsibilities and any change in those responsibilities • Pay and employment conditions elsewhere in the Group • Rates of inflation and market-wide increases across international locations • The geographic location of the executive 	There is no prescribed maximum annual base salary or salary increase. In respect of salary increases the Committee is guided by the general increase for the broader employee population and region where the executive is based.	Salaries will be reviewed by the Committee annually taking into account the various factors noted in the "How it operates" section of the policy.
Retirement allowance To provide competitive retirement benefits for recruitment and retention purposes.	Directors may participate in a defined contribution plan, and/or receive cash in lieu of all or some of such benefit. Only base salary is pensionable. Exceptionally, for Executive Directors outside the UK the pension will be structured as required by local regulation and in line with industry norms. Our past CFO received a cash payment in lieu of pension of 30% of salary. This is a legacy issue where the pension entitlement was set on recruitment. This was valid for 2018 only.	For the CEO and new Directors 15% of salary. For our past CFO 30% of salary valid for 2018 only. NB: The new CFO will receive 15% of salary, as detailed above. Exceptionally, for Executive Directors outside of the UK an amount as required by local regulation and in line with industry norms.	None.
Other benefits To provide a competitive benefit package for recruitment and retention purposes as well as to support the personal health and well-being of the executive.	Benefits provided currently include: private health insurance, life insurance, car/car allowance and fuel allowance. Our past CFO was entitled to reasonable relocation expenses on termination of his contract (by either party). This is a legacy issue where the benefit was in place prior to Admission. Additional benefits and tax payable as a result of reimbursement of reasonable business expenses may be provided from time to time if the Committee decides payment of such benefits and tax is appropriate and in line with market practice.	There is no maximum level of benefits provided to an Executive Director.	None.

Directors' Remuneration Policy continued

Policy table for Executive Directors continued			
Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
<p>Annual bonus</p> <p>To provide focus on the short-term performance of the Company and to provide a reward for achieving short-term personal, strategic and financial Company performance.</p> <p>To provide a mechanism for alignment with longer-term performance and shareholder alignment.</p> <p>The requirement for Executive Directors to acquire shares with their bonus aligns them to the "development of the market price of the shares" in the Company as provided in the Dutch Corporate Governance Code.</p>	<p>The annual bonus is based on the Group's performance as set and assessed by the Committee on an annual basis.</p> <p>The annual bonus is paid in cash and the Executive Directors (except for our past CFO in respect of his 2018 annual bonus) are required to acquire shares in the Company with 50% of the amount paid in excess of target (after tax) which will be held for a minimum period of three years.</p>	<p>Up to 150% of base salary maximum potential opportunity.</p> <p>Target potential opportunity is 50% of maximum opportunity.</p> <p>For 2018 the past CFO's target potential opportunity was 100% of salary which is 83.3% of maximum (on the basis that his maximum potential opportunity was 120% of salary), and threshold potential opportunity was 66.6% of maximum (being 80% of salary).</p>	<p>Details of the performance targets set for the year under review and performance against them will normally be provided each year in the Annual Report on Remuneration. If for reasons of commercial sensitivity, the targets cannot be disclosed then they will be disclosed in the following year.</p> <p>Performance normally measured over a one-year period.</p> <p>Targets will be based on the Group's annual financial and non-financial performance for the particular performance year. At least 70% of the bonus will be subject to financial performance metrics.</p> <p>The Committee may scale back the bonus that is payable if it considers the outcome to be reasonably unacceptable or if it is not representative of the underlying performance of the Company and/or there have been regulatory, environmental or Health and Safety issues that the Committee considers are of such severity that a scale back of the bonus is appropriate.</p> <p>For the financial targets, not more than 25% of the maximum potential bonus opportunity will be payable for achieving threshold performance rising on a graduated scale to 100% for maximum performance. Threshold performance being the level of performance required for the bonus to start paying.</p> <p>In relation to strategic targets the structure of the target will vary based on the nature of the target set and it will not always be practicable to set targets using a graduated scale. Vesting may therefore take place in full if specific criteria are met in full.</p> <p>Payments under the annual bonus plan may be subject to clawback/malus for a period of three years from payment in the event of a material misstatement of the Company's financial results, an error in calculating the level of grant or level of vesting or payment, a failure of risk management including the liquidation of the Group, if the participant has been guilty of fraud or gross misconduct or the Company has been brought into disrepute. The clawback/malus provisions as set out above do not limit Article 2:135 of the Dutch Civil Code.</p>

Policy table for Executive Directors continued			
Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
<p>Performance Share (PS) awards granted under the RHI Magnesita Long-Term Incentive Plan</p> <p>To incentivise and reward execution of the longer-term business strategy.</p> <p>To provide alignment to shareholders and the longer-term performance of the Company and to recognise and reward value creation over the longer term.</p> <p>The "development of the market price of the shares" in the Company is, as required by the Dutch Corporate Governance Code, taken into account by providing a long-term incentive using shares as the delivery mechanism. In addition, part of the award is determined by Total Shareholder Return which is a measure of share price performance.</p>	<p>PS awards may take the form of nil-cost options or conditional awards.</p> <p>Awards are normally made annually.</p> <p>Awards normally vest after three years subject to performance and continued service. Where Executive Directors cease employment or are under notice prior to the three-year vesting date different rules may apply.</p> <p>Shares resulting from the exercise of an option or vesting of a conditional award cannot be sold until five years have elapsed from the date of award, other than to pay tax.</p> <p>To the extent an award vests, the Committee may permit dividend equivalents to be paid either in the form of cash or shares representing the dividends that would have been paid on those shares during the vesting period (and where the award is a nil-cost option to the fifth anniversary of award). Dividend equivalents are payments in cash or shares equal to the value of the dividends that would have been paid during the period referred to above, on the number of shares that vest.</p>	<p>200% of salary (face value of award) annually (normal limit). Where the face value is the market value of the shares subject to an award at the time it is awarded.</p> <p>In exceptional circumstances on recruitment 250% of salary (face value of award).</p>	<p>Awards vest based on three-year (or longer) performance measured against a range of challenging targets set and assessed by the Remuneration Committee.</p> <p>The Committee will determine the specific metrics and targets that will apply to each award prior to the date of award subject to the vesting of at least 25% of an award being determined by Total Shareholder Return.</p> <p>The targets for each award will be set out in the Annual Report on Remuneration.</p> <p>In relation to financial targets not more than 25% of the total award will vest for threshold performance rising on a graduated scale to 100% for maximum performance. Threshold performance being the level of performance required for the PS award to start to vest. In relation to strategic targets the structure of the target will vary based on the nature of the target set and it will not always be practicable to set targets using a graduated scale and so vesting may take place in full if specific criteria are met in full.</p> <p>The Committee may scale back the level of vesting if it considers the outcome to be reasonably unacceptable or if it is not reflective of the underlying performance of the Company and/or there have been regulatory, environmental or Health and Safety issues that the Committee considers are of such severity that a scale back of the PS award is appropriate.</p> <p>PS may be subject to clawback/malus for three years from the date of vesting in the event of a material misstatement of the Company's financial results, an error in calculating the level of grant or level of vesting or payment, a failure of risk management including the liquidation of the Group, if the participant has been guilty of fraud or gross misconduct or the Company has been brought into disrepute. The clawback/malus provisions as set out above do not limit Article 2:135 of the Dutch Civil Code.</p>
<p>Share ownership</p> <p>To increase alignment between management and shareholders and the longer-term performance of the Company.</p>	<p>Requirement for the Executive Directors is to normally retain all of the shares acquired from annual bonus payments following expiry of the three-year holding period and normally 50% of vested Performance Shares (net of tax) following the two-year holding period until the shareholding requirement is achieved.</p> <p>The Committee normally expects this requirement to be met within five years of appointment or approval of this Policy, if later.</p>	<p>The level of requirement will be disclosed in the Annual Report on Remuneration.</p>	<p>None.</p>

The table below sets out the remuneration policy for the Non-Executive Directors (including the Chairman).

Policy table for Non-Executive Directors			
Element and purpose	How it operates	Maximum opportunity	Performance related framework and recovery
<p>Non-Executive Directors (including the Chairman and Deputy Chairman)</p> <p>To provide fees reflecting time commitments and responsibilities of each role to enable recruitment of the right calibre of Non-Executive Directors who can further the interests of the Group through their experience, stewardship and contribution to strategic development of the Group.</p>	<p>The Non-Executive Directors are paid a basic fee. Supplemental fees may be paid for additional responsibilities and activities, including for a Committee Chairman and member of the main Board Committees and the Senior Independent Director.</p> <p>Cash fee normally paid quarterly. The Chairman's fee is inclusive of all of his responsibilities.</p> <p>Reasonable expenses incurred by the Non-Executive Directors in carrying out their duties may be reimbursed by the Company including any personal tax payable by the Non-Executive Directors as a result of reimbursement of those expenses. The Company may also pay an allowance in lieu of expenses if it deems this is appropriate.</p> <p>Fees are reviewed periodically.</p>	<p>There is no prescribed maximum annual fee or fee increase.</p> <p>The Board is guided by the general increase in the Non-Executive market but may decide to award a lower or higher fee increase to recognise, for example, an increase in the scale, scope or responsibility of the role and/or take account of relevant market movements.</p>	<p>None.</p>

Directors' Remuneration Policy continued

Performance criteria and discretions

Selection of criteria

The Committee assesses annually at the beginning of the relevant performance period which performance measures, or combination and weighting of performance measures, are most appropriate for both annual bonus and any performance share awarded to reflect the Company's strategic initiatives for the performance period. The Committee has the discretion to change the performance measures for awards granted in future years based upon the strategic plans of the Company. The Committee sets what it considers are demanding targets for variable pay in the context of the Company's trading environment and strategic objectives and considering the Company's internal financial planning, and market forecasts. Any non-financial goals will be well defined.

Discretions retained by the Committee

The Committee operates the Group's variable pay plans according to their respective rules. In administering these plans, the Committee may apply certain operational discretions.

These include the following:

- determining the extent of vesting based on the assessment of performance;
- determining the status of leavers and, where relevant, the extent of vesting;
- determining the extent of vesting of PS awards under share based plans in the event of a change of control;
- making appropriate adjustments required in certain circumstances (e.g. rights issues, corporate restructuring events, variation of capital and special dividends); and
- adjusting existing targets if events occur that cause the Committee to determine that the targets set are no longer appropriate and that amendment is required so the relevant award can achieve its original intended purpose, provided that the new targets are not materially less difficult to satisfy.

The Committee also retains discretion to make non-significant changes to the Policy without reverting to shareholders (for example, for regulatory, tax, legislative or administrative purposes).

Executive Directors' service contracts and payments for loss of office

Service contracts and letters of appointment are available for inspection at the Company's registered office.

Service contracts and loss of office

It is the Company's policy that notice periods for Executive Directors will not exceed 12 months and the service contracts for the Executive Directors are terminable by either the Company or the Executive Director on 12 months' notice.

The Committee's policy in relation to termination of service contracts is to deal with each case on its merits having regard to the circumstances of the individual, the termination of employment, any legal advice received and what is in the best interests of the Company and its shareholders. An Executive Director's service contract may be terminated early (other than for cause) by payment in lieu of salary in equal monthly instalments over the notice period. The Company may include pension contributions and benefits within the payment in lieu of notice if this is deemed appropriate or is specifically provided for in the service contract. Unless a contract specifically provides otherwise, all payments would discontinue or reduce to the extent that alternative employment is obtained. There are no enhanced provisions on a change of control and there are no specific severance arrangements.

An Executive Director's service contract may be terminated without notice for certain events such as gross misconduct in which case no payments or compensation beyond sums accrued to the date of termination will be paid.

The Company may also pay outplacement costs, legal costs and other reasonable relevant costs associated with termination and may settle any claim or potential claim relating to the termination.

Treatment of variable pay awards on termination¹

Annual bonuses and PS awards are non-contractual and are dealt with in accordance with the rules of the relevant plans except that if Octavio Lopes' contract is terminated by the Company before payment is made of his 2017 bonus then he shall remain entitled to that bonus to be paid on the same date of payment as for the other executives of the Company.

At the discretion of the Committee, in certain circumstances, for example, to incentivise short-term retention and completion of key business deliverables, and where poor performance is not relevant to the cessation, a pro-rata bonus may become payable at the normal payment date for the period of employment with financial performance targets based on full-year performance. Where the Committee decides to make a payment, the rationale will be fully disclosed in the Annual Report on Remuneration.

The default treatment for share based awards is that any unvested award will lapse on termination of employment or, in certain circumstances on the executive giving notice. However, under the rules of the long-term incentive plan under which PS awards will be made, in certain prescribed circumstances, such as death, injury, ill-health, retirement with the Company's agreement, redundancy, leaving the Group because the employer company or business leaves the Group or where the Committee determines otherwise, awards are eligible to vest subject to the performance conditions being met over the normal performance period (or a shorter period where the participant has died) and with the award being reduced (unless the Committee considers, in exceptional circumstances, a different treatment is appropriate) by an amount to reflect the proportion of the performance period not actually served.

Approach to recruitment and promotions

The recruitment package for a new Director would be set in accordance with the terms of the Company's approved remuneration policy.

On recruitment, salary may be set below the normal market rate, with phased increases as the Director demonstrates performance within the Company.

Annual bonus opportunity will reflect the period of service for the year.

The normal annual PS award limit is 200% of salary face value in a financial year (face value being the market value of the shares subject to an award at the time it is awarded). A higher limit of 250% of salary (face value) is included in the recruitment policy for use in exceptional circumstances for the Company to be able to attract and secure the right candidate if required. A PS award may be made shortly after an appointment if the usual annual award date has passed.

1. The policy wording is consistent with previous years, elements relating to Octavio Lopes no longer apply.

On an internal appointment, any variable pay element awarded in respect of their prior role will normally be allowed to continue according to its terms.

The policy enables the Committee to include those benefits it deems appropriate for an Executive Director. On recruitment, this may include benefits such as relocation, housing or schooling expenses. In arriving at a benefits package the Committee's prevailing consideration will be to pay only what is considered necessary and appropriate taking into account the importance of securing the right candidate for the job and acting in the best interests of the Company's shareholders and limiting certain benefits to a specified period where possible.

On recruitment, the Company may compensate for incentive pay (or benefit arrangements) foregone from a previous employer. Replacement share awards would be made under the Company's long-term incentive plan and any subsequently adopted share plans using the separate specific limit for these purposes of 250% of salary (face value) or as necessary and as permitted under the Listing Rules. The new awards would take account of the structure of awards being forfeited (cash or shares), quantum foregone, the extent to which performance conditions apply, the likelihood of meeting any existing performance conditions and the time left to vesting.

Policy for Executive Directors on external appointments

Subject to Board approval, Executive Directors may accept external non-executive positions and retain the fees payable for such appointments.

Non-Executive Directors

Letters of appointment and policy on recruitment

All Non-Executive Directors have letters of appointment for a fixed period of three years, subject to reappointment each year at the AGM. No additional compensation is payable on termination, with fees being payable to the date of termination. The appointments are terminable by either party on three months' written notice.

On appointment of a new Non-Executive Director, the fee arrangement will be set in accordance with the approved remuneration policy in force at that time. Directors' Remuneration Policy.

Legacy arrangements

In approving this Directors' Remuneration Policy, authority is given to the Company to honour any commitments entered into with Directors, which were fully disclosed in the Admission document. Details of any such payments will be set out in the Annual Report on Remuneration as they arise.

How the views of shareholders and employees are taken into account

As the Board members have a wide range of experience and backgrounds, including being works council representatives and shareholders, there is ample opportunity for feedback on the policy and its implementation on an ongoing basis.

The Committee formally consults directly with employees on executive pay via the Employee Representatives appointed to the Board. Other engagement activities include: employee surveys, CEO calls, regular townhall meetings and an active CEO Channel, as part of the My RHI Magnesita App, where employees can ask questions on any issues including executive pay. The Committee receives periodic updates from the CEO and Human Resources Director function of the Group which includes employee feedback received on remuneration practices across the Group. So far, no substantive questions have been raised on executive remuneration. The Committee takes due account of the overall approach to remuneration and the remuneration structures for employees in the Group when setting pay for the Executive Directors.

There are representatives of two of the Company's major shareholders on the Board and thus regular consultation on all elements of remuneration is ongoing. As advised in the Chair of the Committee's letter a consultation with over 70% of shareholders was undertaken in early 2020. The Committee appreciated the clear exchange of views and the opportunity to engage with shareholders about the context of the changes made to our Executive Director salaries. This feedback, best practice in the market, and any feedback also received from time to time, as well as guidance from shareholder representative bodies more generally will be considered as part of the Company's annual review of remuneration policy and implementation of that policy.

In addition to this we also engage with our shareholders through our website. It contains a wide range of information on our Company and has a section dedicated to investors, which includes certain remuneration information, such as our LTIP plan rules, our investor calendar, financial results, presentations, press releases, with news relating to RHIM financial and operational performance and contact details.

Remuneration market data was considered as part of the Committee's formulation of policy in terms of considering remuneration data for companies of a comparable size and complexity to the Company. This was only one of many factors considered by the Committee.

The Committee has taken note of the views of the Executive Directors with regard to the amount and structure of their remuneration and the provisions of 3.1.2 of the Dutch Corporate Governance Code (matters that should be taken into consideration when formulating the remuneration policy) have been brought to their attention.

How the Executive Directors' Remuneration Policy relates to the wider Group

The policy described above applies specifically to the Company's Executive and Non-Executive Directors. The Committee is aware of and provides feedback on the wider Group remuneration structures. The Company's policy is for the Executive Directors' remuneration policy and structure to be cascaded as far as practicable to the senior management team and for the overriding principles to be taken into account for the Group-wide policy.

Base salaries for the whole Group are operated under broadly the same policy as for the Executive Directors and are reviewed annually. The table on page 118 discloses the annual average percentage change of each Director's remuneration, compared to that of all the employees in Austria.

The key difference between the Executive Directors' policy and the wider Group's policy is that the Executive Directors' packages (and the senior management team to a lesser extent) are weighted more to variable pay. From 2019 on, the bonus structure and targets are the same for Executive Directors and for all eligible white-collar employees. All our employees take part in annual discretionary bonus schemes, as shown in the table on the next page. Our approach is to incentivise our employees to focus on and contribute to the Company's goals.

Performance Share awards are awarded to those employees identified as having the greatest potential to influence Group-level performance. Given the cost of operating such a plan, the Committee considers this is the right approach and in the best interests of the Company and its shareholders.

A comparison of the remuneration structure between the wider workforce and the Board is illustrated in the table on page 106.

Directors' Remuneration Policy

continued

Competitive pay and cascade of incentives

Organisational level	Number of employees	Maximum bonus as percentage of salary	Maximum proportion of bonus payable in cash (% of maximum award)	Maximum proportion of bonus deferred in shares (% of maximum award)	Maximum LTIP award based on annual salary
Executive Directors	2	150%	75% ¹	25% ¹	150–200%
Executive Management Team	7	80–140%	85% ²	15% ²	80–150%
Senior Leaders	c25	40%	100%	0%	20–50%
Functional Directors	c100	30%	100%	0%	0%
Senior Managers	c120	25%	100%	0%	0%
Managers	c400	20%	100%	0%	0%
Specialists	c1,300	10%	100%	0%	0%
Professionals	c1,900	5%	100%	0%	0%
Other bonused employees	c9,800	various ³	100%	0%	0%

1 Half of annual bonus in excess of target, after tax, is used by the executive to acquire shares that must be held for a minimum of three years.

2 EMT members are required to acquire shares in the Company with 30% of the amount above target (after tax) which must be held for a minimum of three years.

3 Various local bonus programmes are in place for the operational, administrative and blue-collar employees of the company.

Summary of remuneration structure for employees below the Board

Element	Policy features for the wider workforce	Comparison with Executive Director remuneration
Salary  Read more on page 101	<p>Salary is the basis for a competitive total reward package for all employees, and we conduct an annual salary review for all employees. As we determine salaries in this review, we take account of comparable pay rates from market references, skills, knowledge and experience of each individual, individual performance, and the overall budget we set for each country. In setting the budget each year, we forecast inflation, unions and collective agreements and business context related to such things as growth plans, workforce turnover and affordability.</p>	<p>We review the salaries of our Executive Directors and executive team annually. The primary purpose of the review is to stay aligned with relevant market comparators and stay competitive, as well as to ensure any increases are kept on the same percentage level set for our wider workforce in Europe and North America, except in exceptional circumstances.</p>
Pensions and benefits  Read more on page 101	<p>We offer market-aligned benefits packages reflecting normal practice in each of the countries where we operate.</p>	<p>We have differences in the Executive Directors' benefits to reflect market practice and role differentiation.</p> <p>Our incumbent Executive Directors' pension allowance (and that for new appointments) is aligned to that of the workforce in their country of appointment.</p>
Annual bonus and long-term incentive plan  Read more on pages 102 to 103	<p>Our white collar global workforce participate in an annual cash bonus plan. The plan is based on four company KPI's. This structure places equal emphasis on the importance of an employee's personal contribution to the success of RHI Magnesita. We operate different bonus plans for those employees of our business where remuneration models in the market are markedly different, such as sales and production areas.</p>	<p>Annual bonus for Executive Directors is directly related to the same performance measures and outcomes as the wider workforce.</p> <p>Long-term incentives are provided to our senior executives and senior roles who have influence on the overall performance of the Company.</p>

Pay ratios

The Dutch Corporate Governance Code recommended that from the financial year 2018, and the UK Directors' Reporting Regulations required that from 2019, that the Committee report pay ratios including changes from the prior year as part of its determination of executive pay and wider executive remuneration decisions. Last year RHI Magnesita reported the pay ratio of the CEO to the average total pay of all the employees using a methodology which was in line with Dutch market practice. The ratio was calculated using the CEO's Single Total Figure of remuneration shown on page 111 and the total employee remuneration figure (for the entire RHI Magnesita Group) shown in the accounts on page 118. The total employee remuneration figure is for all employees in all Group companies and includes countries with significantly lower levels of pay than Europe and the United States. RHI Magnesita only has around 100 employees in the UK and falls below the required threshold for UK pay ratio reporting requirements. As UK employees represent less than 1% of RHI Magnesita's employees, the Committee considers that the above approach is appropriate in the circumstances and therefore the ratio has been calculated on the same basis this year.

RHI Magnesita is positioned below the median CEO pay ratio of other basic materials and industrial companies of a similar size listed on the FTSE. The Committee, however, is aware that as currently no long-term incentives have vested, if the 2018 LTIP vests in 2021 the CEO pay ratio will likely increase.

Pay ratios will be a key component to be taken into account when reviewing the Remuneration Policy in 2020.

Pay ratio	2019	2018
CEO	34:1	49:1 ¹

¹ The disclosure last year was incorrectly made using the value of LTIP award granted in the year. The disclosed 2018 figure of 52:1 has been re-stated as above.

The CEO pay ratio has decreased from 2019 as the CEO's bonus payment is lower and employee salary increases were higher year-on-year.

Remuneration scenarios for Executive Directors

The Executive Director remuneration policy provides that a significant proportion of remuneration is determined by Group performance. The graph below illustrates how the total pay opportunities vary under three different performance scenarios: minimum, target and maximum. We have also shown an assumed share price appreciation of 50% for the Performance Share award during the performance period under the maximum payment scenario.

Assumptions

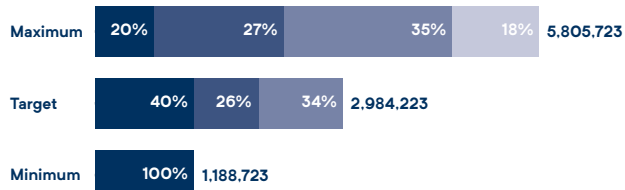
Minimum: Fixed pay only (base salary, pension and benefits, excluding relocation benefits).

Target: Fixed pay plus 50% of 2020 maximum annual bonus opportunity for the CEO and CFO with 50% vesting of the 2020 PS award.

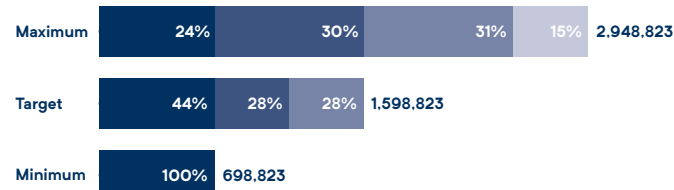
Maximum: Fixed pay plus maximum annual bonus opportunity and 100% vesting of 2020 PS award with an assumed share price appreciation of 50% for the Performance Share award during the performance period.

As required under the Dutch Corporate Code, scenario analyses have been carried out as part of the formulation of the policy and to establish that the policy results in appropriate and fair levels of remuneration including that the level and ratio of fixed to variable pay does not encourage inappropriate risk-taking or over-reliance on variable pay while ensuring there is sufficient alignment to investors, the long-term performance of the Company and development of the market value of the shares of the Company.

CEO €000



CFO €000



■ Fixed pay
 ■ Annual bonus
 ■ Long-term incentives
 ■ Share price appreciation 50%

Annual Report on Remuneration

The following section provides details of how the Company's Directors were paid during the financial year to 31 December 2019.

As a Dutch incorporated and registered and UK listed company RHI Magnesita is required to comply with both UK and Dutch reporting requirements including the UK and Dutch Corporate Governance Codes.

The Committee together with the Board has also determined to provide certain additional voluntary disclosures recognising the importance of transparency of reporting. This Annual Report is compiled on this basis.

Committee membership and operation

Celia Baxter is the Chairman of the Committee and James Leng and Karl Sevelda are members of the Committee. They are all Independent Non-Executive Directors within the meaning of the UK and Dutch Corporate Governance Codes. The Company secretary is the secretary to the Committee.

Other individuals, such as the Chief Executive Officer, the Human Resources Director and external professional advisers may be invited to attend for all or part of any meeting as and when appropriate and necessary. No individual is present when their own remuneration is discussed.

The Committee meets at least three times a year and at such other times as the Chairman of the Committee shall require or as the Board may direct. The Committee has formal terms of reference which are annually refreshed and can be viewed on the Company's website. The terms of reference were reviewed in 2018 to take account of the new Corporate Governance Code.

Attendance at Remuneration Committee meetings in 2019:

Member	Attended
Celia Baxter	4/4
Karl Sevelda	4/4
James Leng	4/4

Advisers

Korn Ferry ("KF"), signatories to the UK Remuneration Consultants Group's Code of Conduct ("Code of Conduct"), were appointed by the Committee in 2017 having submitted a proposal which demonstrated their skills and experience in executive remuneration. KF provides advice to the Committee on matters relating to executive remuneration.

The Committee was satisfied that the advice provided by KF was objective and independent having noted their commitment to the Code of Conduct. KF's fees for advice to the Committee in respect of the 2019 financial year were £33,698. KF's fees were charged on the basis of the time spent advising the Committee.

Principal activities and matters addressed during 2019

	Agenda items	Specific considerations
February	FY2018 EMT Bonus outturn Review of Draft Remuneration Report LTIP new joiners and leavers overview	Executive pay and Governance Overview on Total Rewards
March	Review and approve FY2018 annual bonus outturn for the Executive Directors Approval of 2018 Remuneration Report	LTIP: Review of 2019 grants KPIs, participants and quantum Process for deferred bonus share buying CEO/CFO and EMT
September	Review of Committee's activities Executive Remuneration Benchmarking Total rewards overview Review of annual work plan	Setting of LTIP grant date for future grants
November	Annual review of remuneration for Executive Management Team, senior executive team and Chairman's fee Progress of remuneration report Review of Committee Terms of Reference Overview of group work force population compensation compared to Executive directors' compensation	Selection of a LTIP administration platforms Follow up consideration of changes to UK Governance Code Review of formal post-employment shareholding requirements and developments in the market Report of CEO & EMT's net post-tax figure to purchase shares in the amount of in 2019 Pension contributions reviewed across the workforce, to inform the comparison of Austrian pension contributions to the executive directors' pension contributions

Statement of voting at AGM

At last year's AGM, held on 9 June 2019, votes on the Annual Statement and Annual Report on Remuneration were cast as follows:

	Voting	For	Against	Total
Annual Report on Remuneration	Number of votes	38,161,284	10,472	38,171,756
	%	99.97%	0.03%	100%

The total voting rights of the Company on the day on which shareholders had to be on the register in order to be eligible to vote was 49,477,705.
A "Vote withheld" is not a vote in law and is not counted in the calculation % of shares voted "For" or "Against" a resolution

Compliance with the Dutch Civil Code

On 5 November 2019, a law implementing the revised Shareholders' Rights Directive was adopted by the Upper House of the Dutch Parliament with effect from 1 December 2019. This act has implications for the Remuneration Policy and the Annual Report on Remuneration.

RHI Magnesita was merged into one company on 27 October 2017. Therefore, we are only able to show figures for the full financial years of 2018 and 2019, but we will continue to add each year-on-year figures to reach compliance with Section 2:135b(3) of the Dutch Civil Code.

Remuneration Policy

RHI Magnesita's shareholder approved policy is broadly aligned with the new Dutch regulations. As such, the Committee has decided to retain the current policy and update as required as part of the policy review in advance of the 2021 AGM. In the section below we have set out additional policy wordings and explanations as required by Dutch law.

Mission, values and long-term value creation

The policy was formed in 2018 and was aligned with the four cultural values outlined below:

- Act customer-focused and innovatively
- Open decision-making in a respectful environment
- Operate cross-functionally, collaboratively and pragmatically
- Performance-driven

The mission of the company is "Taking innovation to 1200°C and beyond" which requires a high-performing senior management and the policy is designed to motivate them to perform to a high standard and reach the stretching goals set.

In addition, the remuneration arrangements for the Executive Directors contribute to long-term value creation:

- By providing a fair and appropriate level of fixed remuneration that does not result in over-reliance on variable pay and undue risk taking, thereby encouraging the executives to focus on sustained long-term value creation.
- By providing a balance of short- and long-term incentives to ensure there is focus on short term objectives that will over time build to create long-term value creation as well as long-term goals.
- By requiring executives to acquire and retain shares in the Company.
- By offering long-term incentives where the reward is delivered in shares which aligns executives to shareholder interests and value as well as the performance of the Company over the longer term.
- By requiring performance measures in our long-term incentive to be measured over the longer term and for shares to be held post vesting for a further two-year period.
- By incorporating metrics focused on long-term shareholder value, such as total shareholder return.

The proportion of fixed and variable remuneration

To support the policy's objectives to deliver long-term sustainable success of the Company, the remuneration package of our Executive Directors includes a mix of fixed and variable remuneration. The proportion for 2020 is approximately 40% for fixed pay and 60% variable remuneration on a target basis. Variable pay is split between the cash bonus and long-term incentive in the form of performance shares. Further details are outlined in the scenario chart on page 111.

Performance criteria

The short term financial and non-financial criteria of our variable remuneration are as following:

Financial criteria

- EBIT is a reflection of our Company's operating profits, operating performance and business efficiency supporting the value of RHIM for the shareholders.
- Free cash flow supports RHIM expanding its operations or investments in additional assets/acquisitions and paid out of dividends to our shareholders.

Non-financial criteria

- Strategic Deliverables supporting both EBIT and Free cash flow with initiatives and strategic projects like enhancing the current business model or company's footprint.

The long-term incentive is based only on financial measures, the criteria for these measures are shown below:

- TSR — The combination of movements in share price and dividends earned on shares reflecting the total returns earned by holding the Company's shares.
- Adjusted EPS reflecting the income statement in a clear way and taking the equity structure into account, the Board believes adjusted EPS to be one of the indicators which demonstrate value being created for its shareholders.
- Economic Profit Growth — we measure the value creation, under consideration of all economic resources employed with the business, taking into account the costs of making and selling a product/service.

The criteria listed above directly link to the Company's strategy, long-term interests and sustainability. Performance targets are set at a level to maintain good financial health. This enables the Company to perform well, deliver shareholder returns and invest sustainably to achieve strategic deliverables.

The assessment of the fulfilment of performance criteria is set out on page 112 for the annual bonus. No performance share awards vested during the year.

Policy review process and considerations

The Remuneration Policy will be reviewed in 2020 ahead of approval at the 2021 AGM. The review will follow the process set out below:

- The Committee will consider market and governance developments (including the UK Corporate Governance Code and Dutch regulations) as well as wider pay context, such as pay ratios.
- The Committee will consult with shareholders and employees ahead of the AGM.
- The Committee will carefully consider feedback received from shareholders and employees.
- All changes, adoption or revisions to the existing policy will be brought to the 2021 AGM for shareholders voting.

The Committee gains significant benefit and strong experience in the form of Celia Baxter, the Chairman of the Committee, with over 30 years of Human Resources experience and 20 years of Board and remuneration committee experience. This is in addition to a variety of perspectives from the Committee members which enables a balanced and informed approach to remuneration policy-making.

Single total figure table (audited)

The following table shows a single total figure of remuneration in respect of qualifying services for the 2019 financial year for each Executive and Non-Executive Director of the Company, together with comparative figures for 2018.

Director ^{1,2}	Salary		Taxable benefits ³		Bonus ⁴		Pension		Total remuneration		Total fixed remuneration	Total variable remuneration
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2019
Executive Directors												
Stefan Borgas	€855,000	€826,000	€8,823	€8,823	€498,354	€1,090,876	€128,250	€147,650	€1,490,427	€2,073,350	€992,073	€498,354
Ian Botha ⁵	€375,000	—	€56,755	—	€218,576	—	€56,268	—	€706,617	—	€488,041	€218,576
Non-Executive Directors												
Herbert Cordt	£220,000	£220,000	—	—	—	—	—	—	£220,000	£220,000	£220,000	—
Celia Baxter	£87,500	£82,500	—	—	—	—	—	—	£87,500	£82,500	£87,500	—
Fersen Lambranh ⁶	£3,740	£65,000	—	—	—	—	—	—	£3,740	£65,000	£3,740	—
Andrew Hosty	£80,465	£77,500	—	—	—	—	—	—	£80,465	£77,500	£80,465	—
James Leng	£102,500	£102,500	—	—	—	—	—	—	£102,500	£102,500	£102,500	—
Stanislaus Prinz zu Sayn-Wittgenstein	£65,000	£65,000	—	—	—	—	—	—	£65,000	£65,000	£65,000	—
John Ramsay	£82,500	£77,500	—	—	—	—	—	—	£82,500	£77,500	£82,500	—
Wolfgang Ruttenstorfer	£72,500	£72,500	—	—	—	—	—	—	£72,500	£72,500	£72,500	—
David A. Schlaff	£65,000	£65,000	—	—	—	—	—	—	£65,000	£65,000	£65,000	—
Karl Sevelde	£72,500	£72,500	—	—	—	—	—	—	£72,500	£72,500	£72,500	—
Janet Ashdown ⁷	£82,500	£6,250	—	—	—	—	—	—	£82,500	£6,250	£82,500	—
Fiona Paulus ⁷	£72,034	£5,833	—	—	—	—	—	—	£72,034	£5,833	£72,034	—
Franz Reiter ¹	—	—	—	—	—	—	—	—	—	—	—	—
Michael Schwarz ¹	—	—	—	—	—	—	—	—	—	—	—	—

1 Employee Directors attending Board meetings do not receive remuneration for that role, they are remunerated as employees of the Group.

2 All amounts are disclosed in the currencies in which the relevant elements of pay are set. Actual payment may be made in the currency where the recipient resides using the exchange rate at the time of payment.

3 Benefits in 2019 comprise for Stefan Borgas a car benefit of €8,814 and €9 for insurance for the year and for Ian Botha a car benefit of €7,629, benefits in kind for insurance €184, tax advice of €420 and relocation costs of €48,522 for the year.

4 The Committee adjusted the way the bonus plan operates for the year as described on page 97.

5 Ian Botha joined the Company on 1 April 2019 and therefore his annual salary was prorated accordingly, from an annual salary of €500,000.

6 Fersen Lambranh stepped down from his Board duties January 21, 2019 therefore his fee was prorated accordingly.

7 Janet Ashdown and Fiona Paulus joined the Board on 1 December 2018 and therefore the 2018 fee was prorated accordingly.

No loans, advances or guarantees have been provided to any Director. No Long-term incentives vested during the year and so there was no impact of share price appreciation.

Ratio between fixed and variable pay

S. Borgas	67%	33%
I. Botha	69%	31%

Fixed

Variable

Annual Report on Remuneration

continued

2019 Annual bonus performance against targets (audited)

The annual bonus for the Executive Directors — Stefan Borgas (CEO) and Ian Botha (CFO) — was determined following assessment of achievement of qualitative and quantitative targets as set out below:

Measure and weighting	2019									
	Threshold (0% vests)	Target (50% vests)	Maximum ⁴ (100% vests)	Actual performance	CEO (% of total for each element)	CEO Payment (% of salary) Maximum total pay out ⁵	CEO cash bonus based on €855,000 salary ⁶	CFO (% of total for each element)	CFO Payment (% of salary) Maximum total payout ⁵	CFO cash bonus based on €375,000 part year salary ⁶
Operating EBIT ¹ (35%)	€440.1 million	€481.0 million	€521.9 million	€381.8 million	0%	0%	€0	0%	0%	€0
Free Cash Flow FCF ² (30%)	€247.9 million	€273.0 million	€298.1 million	€285.1 million	74.0%	33.3%	€284,726	74.0%	33.3%	€124,880
Net Synergy Tracking ³ (10%)	€35.0 million	€38.0 million	€45.0 million	€42.0 million	78.6%	11.8%	€100,768	78.6%	11.8%	€44,196
Strategic Objectives (25%)	50%	100%	150%	82.5%	35.2%	13.2%	€112,860	35.2%	13.2%	€49,500
Total					38.9%	58.3%	€498,354	38.9%	58.3%	€218,576

Measure and weighting	2018					
	CEO (% of total for each element)	CEO Payment (% of salary) maximum total pay out	Payout	CFO ⁷ (% of total for each element)	CFO ⁷ Payment (% of salary) maximum total pay out	Payout ⁷
Operating EBIT ¹ (35%)	93.6%	49.2%	€406,060	97.9%	41.1%	€226,101
Free Cash Flow FCF ² (25%)	100.0%	37.5%	€309,750	100%	30.0%	€65,000
Net Synergy Tracking ³ (15%)	100.0%	22.5%	€185,850	100%	18.0%	€99,000
Strategic Objectives (25%)	61.1%	22.9%	€189,216	98.2%	29.3%	€61,297
Total	88.0%	132.1%	€1,090,876	98.7%	118.4%	€651,398

1 At constant currency and w/o restructuring expenses.

2 Operating cash flow at constant currency, EBITDA w/o restructuring expenses + CapEx + change in working capital + cash tax.

3 Synergies are (financial) benefits achieved through the merger of the two companies.

4 The maximum CEO annual bonus in 2019 was 150% of salary and the maximum for the CFO was 150% of salary earned in the year.

5 Bonus achievement % of maximum opportunity (150%).

6 The CEO and CFO are required to purchase shares in the Company to the value of 50% of any bonus paid net of tax, for performance above Target and to hold the shares for a minimum period of three years.

7 Relates to the previous CFO.

The original basis on which the cash targets were set reflected the strategy at the start of the year including a variety of financial policies and practices which the incoming CFO reviewed and amended in line with best practice and the strategy for working capital management changed mid-year following a review by the Board. Consequently, the bonus targets for Free Cash Flow were aligned with the revised strategy on a basis that the targets were no easier or harder to achieve. The Committee assessed the formulaic outcome of the whole bonus calculation in the context of the overall performance of the Company. It noted the reasons for the underperformance of the EBIT targets and the partial meeting of the Free Cash Flow, Net Synergy and Strategic targets. The Committee concluded that the overall outcome of 38.9% of maximum was appropriate and that it was not right to either increase or decrease the formulaic outcome.

Strategic deliverables 2019

Strategic measures* and weighting	Performance	Actual (score out of 150%)
Convert business model (5%)	Performance measured in incremental sales revenue from Solutions business in 2019, training of Sales staff in 2019 and expansion of solutions offering	65%
Restructure European Business (5%)	Performance measured in volume, production and timetable	88%
Restructure Supply Chain Management (5%)	Performance measured in reduced inventory intensity in 2019, EBITA earnings contribution in 2019 and introduction and embedding of 'on-time' supply chain performance metrics	65%
Focus on Recycling Business (5%)	Performance measured in sales revenue from sale of recycled material in 2019, internal use of recycled material in 2019 and introduction of recycling plant in Europe	78%
SG&A Reduction Strategy (5%)	Performance measured on sustainable SG&A reduction initiatives identified and enabled, SG&A cost savings delivered in 2019 and implementation of Global Business Services	133%
Total (25% of bonus opportunity)		85%

* The details of CEO's/CFO's Threshold/Target/Maximum are market sensitive and details of the specific targets are not therefore disclosed as the Board believes they would provide information to competitors. They will remain market sensitive because they are an integral part of our on-going business operations. The Committee has provided as much information as it is able given the nature of the objectives so that investors can be comfortable that the Committee has used a thorough approach in setting the objectives and targets and measuring the outcome.

Given the significant strategic advances made during the year, the Committee is comfortable with the bonus payments made for achievement of strategic deliverables in light of financial performance in the wider macro-economic environment.

No bonuses were awarded to Non-Executive Directors other than the employee representatives in relation to their employment activities.

Share awards where vesting is based on performance periods ending during the financial year ending 31 December 2019 (audited)

There were no share awards where vesting is determined based on performance period during the financial year ending 31 December 2019.

Share awards awarded during the financial year ending 31 December 2019 (audited)

During the year, our CEO received an annual grant of 200% of salary as part of the performance share plan. The CFO received three grants of shares during the year. A grant of 150% of salary in performance shares which represents the annual grant. In addition, the CFO also received conditional shares to buy-out deferred bonus awards with a face value of c.150% of salary and c.150% of salary of performance shares to buy-out performance share awards forfeited.

Details of the annual Performance Share award and the performance targets that will determine the extent to which the award vests are set out below.

Director	Scheme	Basis of award	Date of award	Percentage of salary award	Share price used ¹	Face value €000	Percentage vesting at threshold performance	Number of shares	End of performance period
Stefan Borgas	Performance Shares	Annual award	19 Aug 19	200%	€44.534	1,710	25%	38,397	31 Dec 2021
Ian Botha	Performance Shares	Annual award	19 Aug 19	150%	€44.534	750	25%	16,840	31 Dec 2021

¹ The face value of the awards was calculated using the average closing price for the five trading days prior to the award being granted being £41.06 converted to € (using average FX rate over the same five day period of €1.0846 to £1 = €44,534).

The 2018 Performance Share awards are subject to relative TSR, adjusted EPS and EBIT targets. For the 2019 Performance Share awards the Committee replaced the EBIT metric with Economic Profit Growth. Economic Profit Growth was a key performance indicator (KPI) of the Magnesita business prior to the Combination (of RHI and Magnesita) and has been introduced as a KPI for the combined businesses from 2019 onwards in order to manage and measure the long-term value of the Company. The Committee also changed the measurement of TSR from the percentage growth against the FTSE 350 Index to reviewing its performance against a relevant group of FTSE 350 companies. This change of measurement is seen to be no less challenging than the previous measure. The performance conditions and targets for the 2019 awards shown above are as follows (awards vest on straight line basis between threshold and maximum):

Annual Report on Remuneration continued

Performance targets for 2018 Performance Share awards

Performance measure	Weighting	Threshold (25% vests)	Maximum (100% vests)	Performance period
Relative TSR	33.3%	Matching Index	Index +(25)% ²	2018 to 2020 ³ (+ 2 year holding period post vesting)
Adjusted EPS	33.3%	€5.20 per share	€6.50 per share	
EBIT ¹	33.3%	€390 million	€440 million	

1 The above EBIT target range was incorrectly stated as €380 M to €435 M in the 2018 report and has been corrected in this table.

2 Being at least 25% in absolute terms higher than the Index (e.g. if Index TSR is 23% over three years then the vesting range is TSR of 23% to 48%)

3 For EPS and EBIT performance conditions the period of three financial years commencing with 2018. For the TSR Performance Condition the period of three financial years and one calendar month commencing with the financial year 2018.

Performance targets for 2019 Performance Share awards

Performance measure	Weighting	Threshold (25% vests)	Maximum (100% vests)	Performance period
Relative TSR ¹	33.3%	50th percentile	75th percentile ²	2019 to 2021 (+ 2 year holding period post vesting)
Adjusted EPS	33.3%	€7.80 per share	€9.00 per share	
Economic profit growth	33.3%	€600 M	€670 M	

1 Measured against the FTSE 350, excluding sectors with limited direct relevance to RHI Magnesita.

2 Awards vest on a straight-line basis between threshold and maximum.

Awards to compensate for remuneration forfeited on joining RHI Magnesita

Ian Botha was appointed as CFO from 1 April 2019. In buying out incentive pay that was forfeited on his joining RHI Magnesita, the Committee compensated the CFO with awards that vest over longer time periods, which are subject to performance conditions based on the longer-term performance of RHIM and take into account the expected value of the awards forfeited. The basis and terms of the buy-out awards were fully disclosed in the 2018 Remuneration Report. The Committee granted the following awards:

Director	Form of award	Date of award	Share price used	Face value €000	Number of shares	Vesting conditions
Ian Botha	Conditional shares to buy-out deferred bonus awards	26 November 2019	€45.202	750	16,592	Vesting 3 years after grant (no corporate performance conditions attached, but vesting dependent on continued employment for 3 years from the award date)
Ian Botha	Performance shares to buy-out performance shares awards forfeited	19 August 2019	€44.534	750	16,841	Vesting 3 years after grant subject to meeting 2019 corporate performance conditions for 2019 PS awards shown above. Two-year post vesting holding period applies

Directors' interests in RHI Magnesita's Long-term incentive plan

The table below details outstanding share awards including the normal annual PS awards granted to the CEO and CFO during 2019.

	Scheme	Award Date	Share price used €	Share awards held at 1 January 2019	Awarded during the year	Vested during the year	Share awards lapsed during the year	Share awards held at 31 December 2019	Total share value at award (face value) €	Vesting date
Stefan Borgas	Performance shares	7 June 2018	57.773	28,594	—	—	—	28,594	1,652,000 ¹	7 June 2021
		19 August 2019	44.534	—	38,397	—	—	38,397	1,709,972 ²	19 August 2022
Ian Botha	Performance shares	19 August 2019	44.534	—	16,840	—	—	16,840	750,000 ²	19 August 2022
		19 August 2019	44.534	—	16,841	—	—	16,841	750,000 ²	19 August 2022
	Conditional Award	26 November 2019	45.202	—	16,592	—	—	16,592	750,000 ³	26 November 2022

1 The face value of the awards was calculated using the average closing price for the five trading days prior to the PS award being granted being £50.62 converted to € (using average FX rate over the same five days period of €1.14 to £1 = €57.773).

2 The face value of the awards was calculated using the average closing price for the five trading days prior to the PS award being granted being £41.06 converted to € (using average FX rate over the same five days period of €1.0846 to £1 = €44.534).

3 The face value of the awards was calculated using the average closing price for the five trading days prior to the PS award being granted being £38.73 converted to € (using average FX rate over the same five days period of €1.167 to £1 = €45.202).

Annual Report on Remuneration continued

Statement of Directors' shareholding and share interests (audited)

Under the share ownership requirements set out in the Directors' Remuneration Policy, the Executive Directors are normally required to build and maintain over five years a shareholding equivalent to at least 200% of salary. At the 2019 year-end, the Executive Directors each held shares in the Company as detailed below. Shares are valued using the Company's closing middle market share price on 31 December 2019 of £38.48.

The table below shows how each Director complies with the shareholder guidelines at 31 December 2019:

	Shares held at 31 December 2019	Shares held by connected persons	Shares held at 31 December 2018	Unvested and subject to a service requirement only	Unvested and subject to performance conditions	Shareholding requirement	Current shareholding % salary	Requirement met?
Executive Directors								
Stefan Borgas	13,600	675	10,425 ¹	—	66,991	200% salary	75% ²	No
Ian Botha	—	—	—	16,592	33,681	200% salary	75% ³	No
Non-Executive Directors								
Herbert Cordt	—	—	—	—	—	—	—	—
Celia Baxter	1,002	—	1,002	—	—	—	—	—
Andrew Hosty	379	—	379	—	—	—	—	—
James Leng	—	—	—	—	—	—	—	—
Fersen Lambranco ⁴	—	—	—	—	—	—	—	—
Stanislaus Prinz zu Sayn-Wittgenstein ⁵	—	—	—	—	—	—	—	—
Franz Reiter	—	—	—	—	—	—	—	—
Wolfgang Ruttenstorfer	—	—	—	—	—	—	—	—
David A. Schlaff ⁶	—	—	—	—	—	—	—	—
John Ramsay	2,130	—	2,130	—	—	—	—	—
Michael Schwarz	—	—	—	—	—	—	—	—
Janet Ashdown	—	—	—	—	—	—	—	—
Fiona Paulus	—	—	—	—	—	—	—	—
Karl Sevelda	—	—	—	—	—	—	—	—

¹ In the 2018 disclosure, 675 shares held by persons connected to Stefan Borgas were omitted, although they were announced to the market at the time of purchase. The 2018 figure in the above table has been restated.

² Referring to unvested and subject to service requirement assuming tax rate of 50%

³ Percentage includes share holdings by connected persons

⁴ Interests held from Alumina Holding controlled by persons including Fersen Lambranco were sold in November 2019.

⁵ 2,088,461 interests are held through Chestnut Beteiligungsgesellschaft mbH ("Chestnut"). Ms. Sayn-Wittgenstein made an agreement with Mr. Winterstein which allows Chestnut to exercise the voting rights of Silver Beteiligungsgesellschaft mbH ("Silver") in the Issuer. Ms. Sayn-Wittgenstein and Mr. Winterstein share a family relationship. 2,088,461 held through Silver. Ms. Sayn-Wittgenstein made an agreement with Mr. Winterstein which allows Chestnut to exercise the voting rights of Silver in the Issuer. Ms. Sayn-Wittgenstein and Mr. Winterstein share a family relationship. 1,590,000 held in part directly and in part indirectly through FEWI Beteiligungsgesellschaft mbH.

⁶ 14,333,340 held directly by MSP Stiftung and through a subsidiary. MSP Stiftung is a foundation under Liechtenstein law, whose founder is Mag. Martin Schlaff. The number of shares reported in the 2018 Annual Report stated as 11,347,058 was incorrect.

There were no changes in the Directors' shareholdings and share interests between the end of the year and 31 March, 2020.

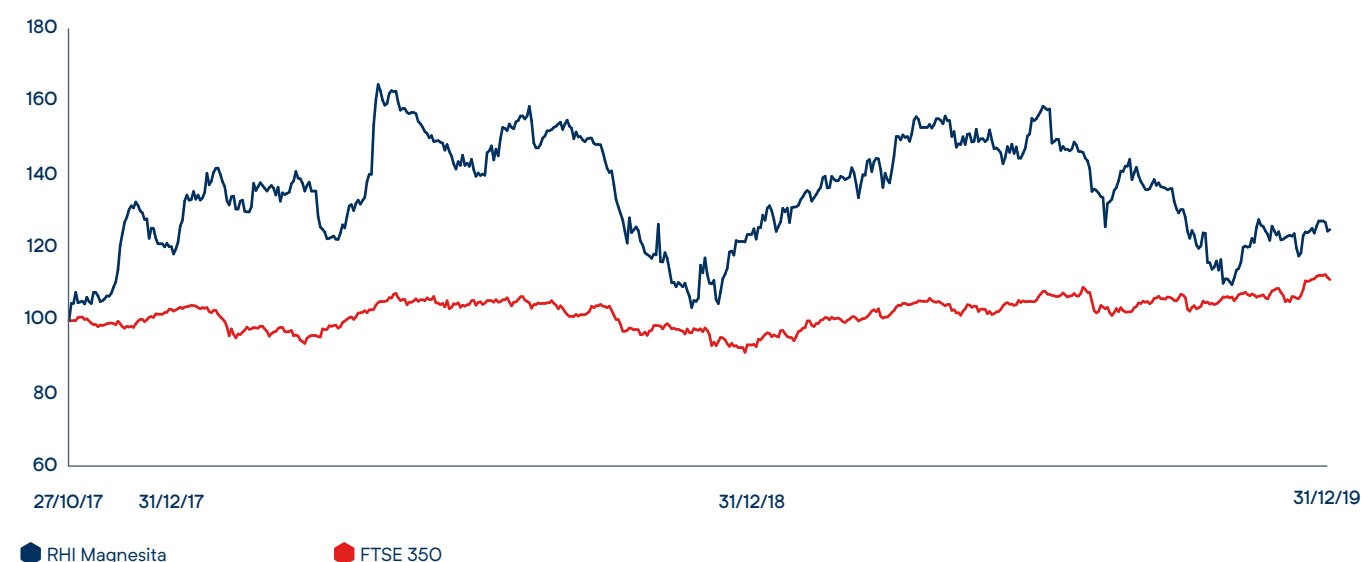
Review of past performance and CEO remuneration table (unaudited)

Share price performance

The closing middle market price of the shares at 31 December 2019 was £38.48 (2018: £39.60). During 2019, the shares traded in the range of £34.20 to £50.00.

RHI Magnesita total shareholder return

The graph below compares the Total Shareholder Return of the Company with the FTSE 350 Index over the 26-month period from Admission to 31 December 2019. This is considered an appropriate comparator for RHI Magnesita and aligns with the use of the FTSE 350 in the TSR performance measure for the Performance Share awards.



Source: Datastream (Thomson Reuters)

Remuneration of the CEO

	2017	2018	2019
Single figure of total remuneration ¹	€476,981	€2,073,350	€1,490,427
Annual bonus pay-out as a % of maximum ²	83.16%	88.04%	38.9%
Long-term incentive vesting rates as % of maximum ³	N/A	N/A	N/A

¹ The 2017 Single figure of Total Remuneration relates to the period 27 October 2017 to 31 December 2017.

² The 2017 Annual bonus pay-out as a % of maximum relates to bonus targets set prior to the merger of the two companies that now form RHI Magnesita.

³ A long-term incentive plan was introduced when the Company was formed in October 2017. The first awards are not due to vest until 2021 based on a performance period ending 31 December 2020 (and shortly thereafter for the TSR element).

Annual percentage change in remuneration of the CEO (unaudited)

The table below illustrates the percentage change in annual salary, benefits and bonus between 2018 and 2019 for the CEO and the average for all Company Austrian employees. The CEO is an Austrian-based employee so the Committee feels that a comparator based on all Austrian employees is appropriate for the purposes of this analysis.

	Salary change (2018 to 2019)	Benefits change (2018 to 2019)	Annual bonus change (2018 to 2019)
CEO	3.5% ¹	-12.4%	-54.3%
Average of employees	6.1%	5.1%	5.8%

¹ The basic salary of Stefan Borgas increased from € 826,000 to € 855,000 (3.5%) based on performance and aligned to salary increase of the workforce.

Annual Report on Remuneration continued

Directors and employee remuneration over time (unaudited)

Directors' total remuneration (on a full-time equivalent basis)

Year	2019	2018	Change %
Executive Directors			
Stefan Borgas ¹	€1,490,427	€2,073,350	-28.1%
Ian Botha ²	€706,617	—	N/A ⁹
Octavio Lopes (CFO until September 2018)	—	€1,936,838	N/A ⁹
Non-Executive Directors			
Herbert Cordt	£220,000	£220,000	—
Celia Baxter	£87,500 ⁶	£82,500	6.1%
Andrew Hosty	£80,465 ⁷	£77,500	3.8%
Fersen Lambranh	£3,740	£65,000	N/A ⁹
James Leng	£102,500	£102,500	—
Stanislaus Prinz zu Sayn-Wittgenstein	£65,000	£65,000	—
John Ramsay	£82,500 ⁶	£77,500	6.4%
Wolfgang Rutenstorfer	£72,500	£72,500	—
David A. Schlaff	£65,000	£65,000	—
Karl Sevelde	£72,500	£72,500	—
Janet Ashdown ³	£82,500 ⁶	£6,250	N/A ⁹
Fiona Paulus ³	£72,034 ⁸	£5,833	N/A ⁹
Franz Reiter ⁴	—	—	—
Michael Schwarz ⁴	—	—	—
Company performance			
Adjusted EPS	5.57	5.31	4.8%
Operating EBIT in € million	381.8	399.6	-4.4%
Free Cash Flow in € million	285.1	370.5	-23.0%
Average remuneration (on a full-time equivalent basis)			
Employees of the Company ⁵	€102,338	€96,398	6.1%

1 The basic salary of Stefan Borgas increased from €826,000 to €855,000 (3.5%) based on performance and aligned to salary increase of the workforce.

2 Ian Botha appointed from 1 April 2019 and therefore in 2019 received a prorated salary of €375,000. The full-year annual salary is €500,000.

3 Janet Ashdown and Fiona Paulus joined the Board on 1 December 2018 and therefore the 2018 fee was prorated accordingly.

4 Employee Directors attending Board meetings do not receive remuneration for that role, they are remunerated as employees of the Group.

5 The group of RHIM employees covers the parent company, namely all employees within the Austrian subsidiaries.

6 The workload of the Committee Chairs was assessed, and fees raised to acknowledge the workload required.

7 An increase in fees due to the establishment of the Corporate Sustainability Committee, whereby Andrew Hosty is a member.

8 From 24 September 2019 on Fiona Paulus has been appointed to Audit Committee as a member and therefore received an additional fee of £2,178 prorated for 2019.

9 Where the incumbent did not serve the full year, the calculation has not been made as it is unrepresentative.

Relative importance of spend on pay (unaudited)

The following table sets out the change in dividends and overall spend on pay in the financial year ended 31 December 2018 compared with the financial year ended 31 December 2019.

	2019 €million	2018 €million	Percentage change
Total gross employee pay	629.7	594.2	5.9%
Dividends ¹	24.5	74.3	8.8%

1 Dividend is not time apportioned.

Payments to past Directors (audited)

There were no payments to past Directors in the period 1 January to 31 December 2019.

Payments for loss of office (audited)

No payments were made to any Director in respect of loss of office in the period 1 January to 31 December 2019.

2020 remuneration (unaudited)

Set out below is how the Directors' Remuneration Policy will be implemented during 2020.

Salaries and fees for 2020

Directors' remuneration (on a full-time equivalent basis)

	2020	2019	Percentage change
Executives			
Stefan Borgas	€1,026,000	€855,000	20%
Ian Botha ¹	€600,000	€500,000	20%
Non-executives			
Chairman (inclusive of all Committee fees)	£235,000 ²	£220,000	6.8%
Non-Executive Directors	£69,400 ²	£65,000	6.8%
Deputy Chair / Senior Independent Director	£26,700	£25,000	6.8%
Chair of Audit Committee & Remuneration Committee	£18,700	£17,500	6.9%
Membership of the Audit and Compliance and Remuneration Committees	£8,000	£7,500	6.7%
Chairs of Nomination Committee (unless held by the Chairman) and Corporate Sustainability Committee	£18,700	£17,500	6.9%
Membership of the Nomination and Corporate Sustainability Committee	£5,300	£5,000	6.0%

¹ Ian Botha appointed from 1 April 2019, and therefore in 2019 was receiving a prorated salary of €375,245 from the full-year annual salary of €500,000.

² Assuming that suggested increases are approved by shareholders. The base fee for the Chairman and non-executive directors was not increased in 2018 and therefore the above increase is in line with the average employee base pay increase in 2018 and 2019.

The Company does not contribute to defined benefit pension schemes on behalf of Executive directors or non-executive directors.

Just prior to the signing of this report the Executive Directors decided from 1 April to waive the 20% salary they were awarded for at least three months. During this time members of the Executive Management Team will waive 10% of their salary, the Chairman and Non-Executive Directors will waive 10% of their fees and many employees globally will likely see a reduction in their earnings.

Executive Directors external appointments

Stefan Borgas was appointed as a Non-Executive Director of SCR-Sibelco NV on 17 April 2019. For this period he retained fees of €35,000.

Annual bonus for 2020

The maximum potential annual bonus opportunity for FY20 remains at 150% of salary for both the CEO and CFO.

The Committee has not yet finalised how the bonus will operate for the year. However, at least 70% of the annual bonus will be determined by financial measures and the balance by strategic objectives. Following the strong progress achieved in delivering on synergies since our business combination "Synergies" as a measure will be removed from the annual bonus.

The specific targets relating to the 2020 bonus will be provided on a retrospective basis in next year's Annual Report on Remuneration.

All other elements of the annual bonus structure remain unchanged and are in line with the approved Directors' Remuneration Policy. The CEO and the CFO are required to use 50% of any bonus earned in excess of target (net of tax) to acquire shares in the Company that will be held for a minimum of three years.

Annual Report on Remuneration continued

2020 LTIP awards

Our CEO will be granted a Performance Share award over shares with a value at grant of 200% and our CFO 150% of salary. The performance measures have been updated to reflect the desire of the Committee to focus management on delivering material increases in the share price (plus dividends) and aggregate EPS over the three year performance period. The Committee felt that in these uncertain times the narrower focus on the absolute (rather than relative) total shareholder return and on total EPS over the three years provides a significantly simpler incentive, better aligned with shareholders' interests. The Committee may scale back the level of vesting if it considers the outcome to be reasonably unacceptable or if it is not reflective of the underlying financial performance of the Company. The Committee determined that a review at the time of vesting of the 2020 awards was preferable to a scale back at grant as the drop in the share price since the 2019 grants were made was predominantly reflective of the COVID-19 market correction. The measures and targets for the 2020 awards are set out below.

Performance measure	Intermediate (75% of vesting)	Weighting	Threshold (25% vesting)	Maximum (100% vesting)	Performance period
TSR ¹	50%	50%	30%	70%	2020 to 2023 (+2 year holding period post vesting)
Adjusted EPS (cumulative for the three-year performance period)	€8.00	50%	€6.50	€9.50	

¹ Measured from, date of grant to 3rd anniversary with a two month average before each date.

² Awards vest on a straight line basis between threshold intermediate and maximum.

Terminology for Performance Share awards

The RHI Magnesita long-term incentive plan (the "Plan") was approved by shareholders at the AGM 2018. After approval Performance Share awards may be **granted** under the Plan. The **grant** of an award is when participants are told they will receive shares provided **performance targets** are met. Participants DO NOT RECEIVE shares at the time an award is granted. **Performance targets** are set at the time the award is **granted** and measured over a **performance period** of three financial years. At the end of the **performance period** the **performance targets** are tested against performance. An award will **vest** if the **performance targets** are met. If the **performance targets** are only met in part then only part of the award will **vest**. When the award **vests** the participant RECEIVES shares in the Company. If therefore a participant is **granted** an award over 100 shares but the **performance targets** are only met in part and only 50% of the award vests, the participant will receive 50 shares. Once an award vests the Executive Directors must retain the vested shares for a further two years (subject to the sale of sufficient shares to meet any tax payable on vesting).

This Report was reviewed and approved by the Board on 31 March 2020 and signed on its behalf by order of the Board.

Celia Baxter
Chairman of the Remuneration Committee

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Consolidated Statement of Financial Position

as of 31.12.2019

in € million	Notes	31.12.2019	31.12.2018
ASSETS			
Non-current assets			
Goodwill	(11)	117.5	117.4
Other intangible assets	(12)	319.0	334.4
Property, plant and equipment	(13)	1,106.8	1,094.8
Investments in joint ventures and associates	(14)	19.5	21.8
Other non-current financial assets	(15)	15.4	18.0
Other non-current assets	(16)	39.5	34.3
Deferred tax assets	(17)	181.9	171.1
		1,799.6	1,791.8
Current assets			
Inventories	(18)	602.7	717.8
Trade and other current receivables	(19)	432.7	481.2
Income tax receivables	(20)	17.3	18.4
Other current financial assets	(21)	0.1	38.6
Cash and cash equivalents	(22)	467.2	491.2
		1,520.0	1,747.2
		3,319.6	3,539.0
EQUITY AND LIABILITIES			
Equity			
Share capital	(23)	49.5	48.3
Group reserves	(24)	774.4	752.2
Equity attributable to shareholders of RHI Magnesita N.V.		823.9	800.5
Non-controlling interests	(25)	20.8	84.8
		844.7	885.3
Non-current liabilities			
Borrowings	(26)	983.5	844.8
Other non-current financial liabilities	(27)	105.1	49.5
Deferred tax liabilities	(17)	54.0	78.4
Provisions for pensions	(28)	328.1	304.3
Other personnel provisions	(29)	75.8	78.5
Other non-current provisions	(30)	98.5	109.2
Other non-current liabilities	(31)	7.3	10.3
		1,652.3	1,475.0
Current liabilities			
Borrowings	(26)	71.5	321.6
Other current financial liabilities	(27)	31.9	15.0
Trade payables and other current liabilities	(32)	614.0	756.9
Income tax liabilities	(33)	35.4	32.2
Current provisions	(34)	69.8	53.0
		822.6	1,178.7
		3,319.6	3,539.0

Consolidated Statement of Profit or Loss

from 01.01.2019 to 31.12.2019

in € million	Notes	2019	2018
Revenue	(35)	2,922.3	3,081.4
Cost of sales	(36)	(2,205.1)	(2,344.5)
Gross profit		717.2	736.9
Selling and marketing expenses	(37)	(126.2)	(128.9)
General and administrative expenses	(38)	(209.2)	(208.4)
Restructuring and write-down expenses	(39)	(112.1)	(22.3)
Other income	(40)	34.9	43.9
Other expenses	(41)	(31.3)	(22.6)
EBIT		273.3	398.6
Interest income	(42)	9.1	9.7
Interest expenses on borrowings		(28.4)	(48.5)
Net expense on foreign exchange effects and related derivatives	(43)	(17.2)	(81.3)
Other net financial expenses	(44)	(38.7)	(42.6)
Net finance costs		(75.2)	(162.7)
Share of profit of joint ventures and associates	(14)	1.5	10.1
Profit before income tax		199.6	246.0
Income tax	(45)	(50.8)	(58.9)
Profit after income tax		148.8	187.1
attributable to shareholders of RHI Magnesita N.V.		139.0	158.1
attributable to non-controlling interests	(25)	9.8	29.0
in €			
Earnings per share – basic	(52)	2.82	3.52
Earnings per share – diluted		2.81	3.52

Consolidated Statement of Comprehensive Income

from 01.01.2019 to 31.12.2019

in € million	Notes	2019	2018
Profit after income tax		148.8	187.1
Currency translation differences			
Unrealised results from currency translation	(7)	(7.6)	(20.3)
Deferred taxes thereon	(45)	3.9	0.9
Current taxes thereon		2.4	0.0
Unrealised results from net investment hedge	(56)	(2.9)	0.0
Deferred taxes thereon	(56)	0.5	0.0
Current taxes thereon	(56)	0.2	0.0
Reclassification to profit or loss	(41)	3.7	0.0
Cash flow hedges			
Unrealised fair value changes	(55)	(7.4)	(6.8)
Deferred taxes thereon	(45)	1.9	1.8
Reclassification to profit or loss	(55)	(0.7)	0.0
Share of other comprehensive income of joint ventures and associates	(14)	0.0	0.1
Items that will be reclassified subsequently to profit or loss, if necessary		(6.0)	(24.3)
Remeasurement of defined benefit plans			
Remeasurement of defined benefit plans	(28)	(37.1)	(11.5)
Deferred taxes thereon	(45)	9.1	3.0
Share of other comprehensive income of joint ventures and associates	(14)	(0.1)	0.0
Items that will not be reclassified to profit or loss		(28.1)	(8.5)
Other comprehensive income after income tax		(34.1)	(32.8)
Total comprehensive income		114.7	154.3
attributable to shareholders of RHI Magnesita N.V.		103.4	137.9
attributable to non-controlling interests	(25)	11.3	16.4

Consolidated Statement of Cash Flows

from 01.01.2019 to 31.12.2019

in € million	Notes	2019	2018
Cash generated from operations		470.4	462.2
Income tax paid less refunds		(67.8)	(67.9)
Net cash inflow from operating activities	(48)	402.6	394.3
Investments in property, plant and equipment and intangible assets		(156.1)	(122.6)
Investments in subsidiaries net of cash acquired		(0.5)	0.0
Investments in securities		(0.4)	(121.2)
Cash inflows from sale of subsidiaries net of cash disposed of		2.5	0.0
Cash inflows from the sale of property, plant and equipment		1.4	2.9
Cash inflows from the sale of securities and shares		40.9	118.4
Dividends received from joint ventures and associates		13.4	11.0
Investment subsidies received		0.2	2.1
Interest received	(50)	8.3	8.2
Investments in/ cash inflows from non-current receivables		0.0	0.4
Net cash (outflow) from investing activities		(90.3)	(100.8)
Share issue costs		0.0	(6.2)
Capital contribution to associates		0.0	(1.4)
Acquisition of treasury shares		(18.8)	0.0
Acquisition of non-controlling interests		(44.6)	(80.1)
Proceeds from sale of non-controlling interests		0.0	9.2
Dividend payments to shareholders of the Group		(74.2)	(33.6)
Dividend payments to non-controlling interests		(1.3)	(1.1)
Proceeds from borrowings and loans		432.0	734.9
Repayments of borrowings and loans		(550.4)	(801.9)
Changes in current borrowings		(2.8)	26.4
Interest payments	(50)	(49.8)	(71.1)
Repayment of lease obligations		(14.3)	0.0
Interest payments from lease obligations		(1.2)	0.0
Cash flows from derivatives		(14.4)	(20.1)
Net cash (outflow) from financing activities	(49)	(339.8)	(245.0)
Total cash flow		(27.5)	48.5
Change in cash and cash equivalents		(27.5)	48.5
Cash and cash equivalents at beginning of year		491.2	442.4
Foreign exchange impact		3.5	0.3
Cash and cash equivalents at year-end	(22)	467.2	491.2

Consolidated Statement of Changes in Equity

from 01.01.2019 to 31.12.2019

in € million	Notes	Share capital (23)	Treasury shares	Additional paid-in capital	Mandatory reserve	Retained earnings	Cash flow hedges	Defined benefit plans	Currency translation	Equity attributable to shareholders of RHI Magnesita N.V.	Non-controlling interests	Total equity
				(24)	(24)	(24)	(24)	(24)	(24)		(25)	
31.12.2018		48.3	-	305.5	288.7	351.0	(5.0)	(114.2)	(73.8)	800.5	84.8	885.3
Profit after income tax		-	-	-	-	139.0	-	-	-	139.0	9.8	148.8
Currency translation differences		-	-	-	-	-	-	-	(1.4)	(1.4)	1.6	0.2
Market valuation of cash flow hedges		-	-	-	-	-	(6.1)	-	-	(6.1)	(0.1)	(6.2)
Remeasurement of defined benefit plans		-	-	-	-	-	-	(28.0)	-	(28.0)	-	(28.0)
Share of other comprehensive income of joint ventures and associates		-	-	-	-	-	-	(0.1)	-	(0.1)	-	(0.1)
Other comprehensive income after income tax		-	-	-	-	-	(6.1)	(28.1)	(1.4)	(35.6)	1.5	(34.1)
Total comprehensive income		-	-	-	-	139.0	(6.1)	(28.1)	(1.4)	103.4	11.3	114.7
Dividends		-	-	-	-	(98.8)	-	-	-	(98.8)	(1.3)	(100.1)
Issue of ordinary shares related to the integrated tender offer of Magnesita	1.2	-	-	55.8	-	-	-	-	-	57.0	-	57.0
Shares repurchased	-	-	(18.8)	-	-	-	-	-	-	(18.8)	-	(18.8)
Disposal of benefit plans	-	-	-	-	-	1.2	-	(1.2)	-	-	-	-
Acquisition in non-controlling interests without change of control	-	-	-	-	-	(16.9)	0.1	(2.1)	(4.6)	(23.5)	(74.0)	(97.5)
Share-based expenses	-	-	-	-	-	4.1	-	-	-	4.1	-	4.1
Transactions with shareholders	1.2	(18.8)	(18.8)	55.8	-	(110.4)	0.1	(3.3)	(4.6)	(80.0)	(75.3)	(155.3)
31.12.2019		49.5	(18.8)	361.3	288.7	379.6	(11.0)	(145.6)	(79.8)	823.9	20.8	844.7

in € million	Notes	Group reserves									
		Accumulated other comprehensive income									
		Share capital	Additional paid-in capital	Mandatory reserve	Retained earnings	Cash flow hedges	Defined benefit plans	Currency translation	Equity attributable to shareholders of RHI Magnesita N.V.	Non-controlling interests	Total equity
		(23)	(24)	(24)	(24)	(24)	(24)	(24)		(25)	
31.12.2017		44.8	165.7	288.7	281.9	0.1	(107.7)	(54.7)	618.8	226.9	845.7
Effects of initial application of IFRS 15 (net of tax)					(6.0)				(6.0)	(0.6)	(6.6)
Effects of initial application of IFRS 9 (net of tax)					1.8				1.8	-	1.8
01.01.2018		44.8	165.7	288.7	277.7	0.1	(107.7)	(54.7)	614.6	226.3	840.9
Profit after income tax		-	-	-	158.1	-	-	-	158.1	29.0	187.1
Currency translation differences		-	-	-	-	-	-	(8.5)	(8.5)	(10.9)	(19.4)
Market valuation of cash flow hedges		-	-	-	-	(5.2)	-	-	(5.2)	0.2	(5.0)
Remeasurement of defined benefit plans		-	-	-	-	-	(6.6)	-	(6.6)	(1.9)	(8.5)
Share of other comprehensive income of joint ventures and associates		-	-	-	-	-	-	0.1	0.1	-	0.1
Other comprehensive income after income tax		-	-	-	-	(5.2)	(6.6)	(8.4)	(20.2)	(12.6)	(32.8)
Total comprehensive income		-	-	-	158.1	(5.2)	(6.6)	(8.4)	137.9	16.4	154.3
Dividends		-	-	-	(33.6)	-	-	-	(33.6)	(1.2)	(34.8)
Issue of ordinary shares related to the mandatory tender offer of Magnesita	3.5		139.8	-	-	-	-	-	143.3	-	143.3
Sale of non-controlling interests without loss of control	-		-	-	7.2	-	-	0.2	7.4	1.7	9.1
Acquisition in non-controlling interests without change of control	-		-	-	(59.4)	0.1	0.1	(10.9)	(70.1)	(158.4)	(228.5)
Share-based expenses	-		-	-	1.0	-	-	-	1.0	-	1.0
Transactions with shareholders	3.5	139.8	-	-	(84.8)	0.1	0.1	(10.7)	48.0	(157.9)	(109.9)
31.12.2018		48.3	305.5	288.7	351.0	(5.0)	(114.2)	(73.8)	800.5	84.8	885.3

Notes

to the Consolidated Financial Statements 2019

PRINCIPLES AND METHODS

1. General

RHI Magnesita N.V. (the "Company"), a public company with limited liability under Dutch law is registered with the Dutch Trade Register of the Chamber of Commerce under the number 68991665 and has its corporate seat in Arnhem, Netherlands. The administrative seat and registered office is located at Kranichberggasse 6, 1120 Vienna, Austria.

The Company and its subsidiaries, associates and joint ventures (the "Group") is a global industrial group whose core activities comprise of the development and production, sale, installation and maintenance of high-grade refractory products and systems used in industrial high-temperature processes exceeding 1,200°C. The Group supplies customers in the steel, cement, lime, glass and non-ferrous metals industries. In addition, the Group's products are used in the environment (waste incineration), energy (refractory construction) and chemicals (petrochemicals) sectors.

The shares of RHI Magnesita N.V. are listed on the Main Market of the London Stock Exchange and are included in the FTSE 250 Index.

RHI Magnesita N.V. was incorporated on 20 June 2017 and became the ultimate parent of the RHI Magnesita Group as of 26 October 2017, after completing the corporate restructuring of RHI AG. Until then, RHI AG was the ultimate parent of the Group. This restructuring represented a common control transaction that had no impact on the Consolidated Financial Statements, except for the reclassification of individual equity components.

The financial year of RHI Magnesita N.V. and the Group corresponds to the calendar year. If the financial years of subsidiaries included in the Consolidated Financial Statements do not end on 31 December due to local legal requirements, a special set of financial statements are prepared for the purpose of consolidation. The reporting date of the Indian subsidiaries is 31 March.

The Consolidated Financial Statements for the period from 1 January to 31 December 2019 were drawn up in accordance with all International Financial Reporting Standards (IFRSs) mandatory at the time of preparation as adopted by the European Union (EU). 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 or if the company does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting date. 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.

With the exception of specific items such as derivative financial instruments and plan assets for defined benefit obligations, the Consolidated Financial Statements are prepared on a historical cost basis unless otherwise stated.

The financial statements have been prepared on a going concern basis. Information on the outbreak of the coronavirus COVID-19 is disclosed under Note (64). The impact of COVID-19 on the Group is assessed below:

The Group benefits from a strong financial position, with low leverage and significant liquidity. As at 31 December 2019 the group has liquid resources of €467.2 million comprising cash and cash equivalents as well as since January 2020 a committed and unutilised credit facility amounting to €600.0 million. Furthermore, repayments of borrowings to financial institutions in 2020 are scheduled with €15.4 million only. Therefore, it is very likely that liquidity security is given for a period of at least 12 months after the date of approval of RHI Magnesita N.V.'s financial statements. As part of assessing the ability to continue as a going concern, RHI Magnesita also considered the impact of COVID-19 and a related potential global economic downturn on its business. Economic activities in the Steel and Industrial Segments are closely linked to the developments of the global markets. During this assessment management conducted various scenario analyses with sufficient depth and duration, considering different levels of revenue reduction and working capital implications. The sensitivities applied were informed by internal and external data sources, including a review of the Group's most recent production levels and short-term order book, customer feedback and review of regional macroeconomic forecasts. Using this data, management created Scenario A, Scenario B and Scenario C which modelled the effect of incremental reductions to revenue at regional and aggregated levels on the Group's results for a three-year period. The scenarios also accounted for the working capital implications of reduced sales activity and the mitigating actions available to management.

In each scenario, sufficient liquidity and headroom on the Group's covenants were demonstrated. Based on the most recent available external information we have no information that Scenario C is likely to occur. In the event of such further deterioration of market conditions as a result of the COVID-19 outbreak, and implementation of the mitigating actions identified by the Board, the Group will remain compliant with its financing covenant and will have sufficient liquidity to meet obligations when they fall due for a period of at least 12 months after 31 March 2020. In order to secure production capabilities and the health and safety of our employees, RHI Magnesita established Corona Task Forces on a global and regional basis, plants are operating with very strict restrictions, such as pre-work temperature checks. Moreover, all corporate offices are currently closed with employees working from home. RHI Magnesita is currently evaluating further potential actions to mitigate risk such as the use of short working hours, governmental subsidies and the tax benefits which are offered from the different national governments due to the COVID-19 crisis. As a result, and even though globally everyone is confronted with a high level of uncertainty, it is not expected that the coronavirus COVID-19 will have a material negative impact on the ability of the Group to operate as going concern.

The preparation of the Consolidated Financial Statements in agreement with generally accepted accounting 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 recognised 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 based on experience from comparable transactions, the actual values recognised 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 Annual Report was authorised for issue on 31 March 2020 and is subject to adoption at the Annual General Meeting of shareholders on 18 June 2020.

2. Initial application of new financial reporting standards

In 2019, the Group has applied for the first time a number of new standards and interpretations as well as amendments to IFRSs issued by the International Accounting Standards Board (IASB) that are mandatorily effective for an accounting period that begins on or after 1 January 2019.

Standard	Title	Publication (EU endorsement) ¹⁾	Effects on RHI Magnesita Consolidated Financial Statements
New standards and interpretations			
IFRS 16	Leases	13.01.2016 (31.10.2017)	Detailed description after the tabular overview
IFRIC 23	Uncertainty over Income Tax Treatments	07.06.2017 (23.10.2018)	No material effects
Amendments of standards			
Various	Annual Improvements to IFRS 2015–2017 Cycle	12.12.2017 (14.03.2019)	No material effects
IAS 19	Plan Amendment, Curtailment or Settlement	07.02.2018 (13.03.2019)	No effect
IAS 28	Long-term Interests in Associates and Joint Ventures	12.10.2017 (08.02.2019)	No effect
IFRS 9	Prepayment Features with Negative Compensation	12.10.2017 (22.03.2018)	No effect
IFRS 7, IFRS 9, IAS 39	Interest Rate Benchmark Reform	26.09.2019 (15.01.2020)	No material effects

1) According to EU Endorsement Status Report of 23.01.2020.

IFRS 16 “Leases”

The accounting standard IFRS 16 “Leases”, issued in January 2016 supersedes the previous IAS 17 “Leases” as well as the related interpretations and is applicable to financial years beginning on or after 1 January 2019.

Notes

continued

Whereas accounting according to IFRS 16 remains mainly comparable to the IAS 17 regulations for lessors, accounting according to IFRS 16 leads to major changes for lessees as it requires lessees to recognise right-of-use assets and liabilities for all leases in the scope of IFRS 16. Applying this single lessee accounting model results in an increase in total assets and liabilities in the Consolidated Statement of Financial Position as well as in a replacement of the straight-line expenses for operating leases with a depreciation charge for right-of-use assets and interest expenses for lease liabilities in the Consolidated Statement of Profit or Loss. Moreover, there is a shift from cash flow from operating activities to cash flow from financing activities in the Consolidated Statement of Cash Flows, except for short-term leases and low value leases.

RHI Magnesita implemented IFRS 16 on 1 January 2019 using the modified retrospective approach for transition. According to this method the lease liability is measured at the present value of the remaining lease payments, discounted at using the incremental borrowing rate at initial application. The recognised amount of the right-of-use asset equals the lease liability. Cumulative adjustments were recognised as at adoption and comparative information was not restated.

When adopting IFRS 16 RHI Magnesita makes use of the following transition exemptions:

- Continuing to apply the definition of a lease in accordance with IAS 17 and IFRIC 4 and not to reassess whether a contract is or contains a lease according to IFRS 16.
- Relying on its assessment of whether leases are onerous immediately before the date of adoption as an alternative to performing impairment review.

RHI Magnesita makes use of the following ongoing IFRS 16 practical expedients:

- Lease payments for leases whose contractual term is 12 months or less or whose remaining term at adoption is 12 months or less will continue to be recognised as an expense.
- Lease payments for leases for which the underlying asset is of low value will continue to be recognised as an expense.
- Applying a single discount rate to a portfolio of leases with reasonably similar characteristics.

From 1 January 2019, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable
- Variable lease payment that are based on an index or a rate
- Amounts expected to be payable by the lessee under residual value guarantees
- The exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions. The incremental borrowing rate is based on the German federal bond and the US Government Treasury Yield Curve. Based on these two governmental curves, a spread is determined in relation to the bond rating of RHI Magnesita. This spread is then added with an inflation differential and a country risk premium for each country. The weighted average incremental borrowing rate applied to these lease liabilities was 2.44%.

Right-of-use assets are measured at cost comprising the following:

- The amount of the initial measurement of lease liability
- Any lease payments made at or before the commencement date less any lease incentives received
- Any initial direct costs, and
- Restoration and removal costs.

A lease modification is a change in the scope of a lease or the consideration for a lease, that was not part of the original terms and conditions of the lease. If the modification decreases the scope of the lease, the carrying amount of the right-of-use asset and the lease liability has to be reduced accordingly. If the modification increases the scope of the lease (consideration is not at a stand-alone price), the carrying amount of the right-of-use asset and the lease liability has to be increased accordingly.

RHI Magnesita's leases are mainly arrangements regarding land and buildings, technical equipment and machinery as well as other equipment, furniture and fixtures. The average lease term is eleven years for land and buildings, five years for technical equipment and four years for other equipment, furniture and fixtures. Impacts resulting from extension and termination options, as well as residual value guarantees are immaterial.

The following table shows the reconciliation of the minimum lease payments reported as at 31 December 2018 to the lease liability recognised on 1 January 2019:

Commitments arising from rental agreements and leases as at 31.12.2018

Commitment for less than one year	16.3
Commitment for longer than one year and up to five years	27.7
Commitment for longer than five years	29.7
Total commitments arising from rental agreements and leases	73.7
Commitments arising from short-term leases and leases of low-value assets	(4.1)
Total commitments for the determination of the lease liability	69.6
Effect of discounting at the incremental borrowing rate	(7.6)
Lease liability as at 01.01.2019	62.0

The following table gives an overview of the positions affected by IFRS 16:

in € million	31.12.2019	01.01.2019
Right-of-use assets included in property, plant and equipment		
Right-of-use assets — land and buildings	24.0	40.0
Right-of-use assets — technical equipment and machinery	23.0	17.0
Right-of-use assets — other equipment, furniture and fixtures	4.2	5.0
Total right-of-use assets	51.2	62.0
thereof Segment Steel	28.2	34.0
thereof Segment Industrial	23.0	28.0
Lease liabilities included in other non-current and other current financial liabilities		
Current lease liabilities	13.8	16.0
Non-current lease liabilities	48.1	46.0
Total lease liabilities	61.9	62.0

Notes

continued

in € million	2019
Depreciation charge of right-of-use assets	
Depreciation charge of right-of-use assets – land and buildings	5.1
Depreciation charge of right-of-use assets – technical equipment and machinery	7.0
Depreciation charge of right-of-use assets – other equipment furniture and fixtures	2.4
Total depreciation charge of right-of-use assets	14.5
Interest expense	1.2
Expenses related to short-term and low-value leases as well as variable lease payments	9.2
The total cash outflow for leases in 2019	24.7
Impact on Earnings per share in € (basic)	0.00
Impact on Earnings per share in € (diluted)	0.00

Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT equipment, office furniture and other small items.

IFRS 7, IFRS 9, IAS 39 “Interest Rate Benchmark Reform”

RHI Magnesita has elected to early adopt the amendments to IAS 39 and IFRS 7 Interest Rate Benchmark Reform (IBOR) issued in September 2019. In accordance with the transition provisions, the amendments have been adopted retrospectively to hedging relationships that existed at the start of the reporting period and to the amount accumulated in the cash flow hedge reserve at that date.

The amendments provide temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by the IBOR reform. The reliefs stipulated in the IBOR reform should not cause hedge accounting to terminate in general. However, any hedge ineffectiveness continues to be recorded in the income statement. Furthermore, the amendments set out triggers for when the reliefs will end, which include the uncertainty arising from interest rate benchmark reform no longer being present.

The timing and precise nature of the IBOR reform are currently uncertain. RHI Magnesita's risk exposure that is directly affected by the IBOR reform concerns its USD 200 million floating-rate debt with a remaining term until 2023. RHI Magnesita has hedged this debt with an interest rate swap, and it has designated the swap in a cash flow hedge of the variability in cash flows of the debt, due to changes in USD LIBOR that is the current benchmark interest rate. Further information is provided under note (55).

Currently the structure of the USD LIBOR is unclear after 2021. This represents a possible source of ineffectiveness because this might affect at a different time and have a different impact on the hedged item (the floating-rate debt) and the hedging instrument (the interest rate swap used to hedge the debt). Management considers that the most likely scenario is that the hedged debt will move to the same alternative benchmark rate as the swap. Therefore, no material effect on the Group is expected.

According to recent developments on the market, the EURIBOR is expected to remain active as the benchmark rate in the Euro area and consequently the risk of discontinuation before 2023 is relatively small, thus the interest rate swap of EUR 305.6 million and its corresponding underlying hedged item, a floating-rate debt, both maturing in 2023, would most likely be unaffected. Even in the unlikely scenario of precocious discontinuation of the EURIBOR, Management considers that the hedged debt would move to the same alternative benchmark rate as the swap.

RHI Magnesita is closely monitoring the developments of the IBOR reform and is in close communication with the banks to minimise any mismatches going forward.

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 as at 31 December 2019. They were not applied early on a voluntary basis. They are not expected to have a significant impact on the RHI Magnesita Consolidated Financial Statements.

Standard	Title	Publication (EU endorsement) ¹⁾	Mandatory application for RHI Magnesita	Expected effects on RHI Magnesita Consolidated Financial Statements
New standards				
IFRS 14	Regulatory Deferral Accounts	30.01.2014	No EU endorsement	Not relevant
IFRS 17	Insurance Contracts	18.05.2017	01.01.2021	Not relevant
Amendments of standards				
IAS 1, IAS 8	Definition of Material	31.10.2018	01.01.2020	No material effects
IFRS 3	Business Combinations	22.10.2018	01.01.2020	No effect
Various	Amendments to References to the Conceptual Framework in IFRS Standards	29.03.2018	01.01.2020	No effect

1) According to EU Endorsement Status Report of 23.01.2020.

The following financial reporting standard was issued by the IASB, but had not yet been adopted by the EU at the time of the preparation of the RHI Magnesita Consolidated Financial Statements:

Standard	Title	Publication ¹⁾	Mandatory application for RHI Magnesita	Expected effects on RHI Magnesita Consolidated Financial Statements
New standards and interpretations				
Amendments of standards				
IAS 1	Classification of Liabilities as Current or Non-current	1/23/2020	1/1/2022	No material effects

1) According to EU Endorsement Status Report of 23.01.2020.

4. Integrated Tender Offer

As a result of the merger between RHI and Magnesita, the Group was required – in accordance with the share purchase agreement (SPA) and Brazilian laws and regulations — to make a mandatory public offer in Brazil which had to be addressed to all remaining Magnesita shareholders and had to be made on the same terms and conditions as those made available to the Sellers under the SPA, including as to purchase price and form of consideration. The Group decided to combine the mandatory offer with a so-called “delisting tender offer” in an Integrated Tender Offer (ITO) and filed with the Brazilian Securities Commission the respective request. The launch of the ITO was communicated to the minority shareholders on 10 November 2018.

Magnesita shareholders received the option of selling each Magnesita share in exchange of:

- (i) R\$18.46, adjusted by SELIC (the Brazilian benchmark interest rate) from 26 October 2017 until the date of the settlement of the auction of the Integrated Tender Offer, plus 0.1998 RHI Magnesita shares or
- (ii) A cash-only alternative consideration.

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The consideration of the cash-only alternative offer was the highest between:

- (i) R\$31.09, adjusted by SELIC from 26 October 2017 until the date of the settlement of the auction of the Integrated Tender Offer, and
- (ii) R\$35.56, not adjusted by SELIC.

In the course of the finalisation of the ITO in 2019, the Group acquired the remaining outstanding Magnesita shares during the first four months of 2019 and has issued a total of 1,140,658 new ordinary shares. As at 10 April 2019, RHI Magnesita's issued share capital consisted of 49,477,705 shares with voting rights. The fair value of the consideration as at 31 December 2019 is €97.5 million and includes a cash part in the amount of €40.5 million. These shares were delivered in four different instances to minority shareholders and admitted to trading on the London Stock Exchange's main market in the first four months 2019. The closing price per share on each of the trading days was used for the determination of the fair value of the issued ordinary shares totalling up to €57.0 million. The carrying amount of Magnesita's net assets in the Group's Consolidated Financial Statements as of 10 April 2019 was €499.7 million. Consequently, the carrying amount of non-controlling interests acquired amounts to €74.0 million. This transaction results in a decrease in equity attributable to shareholders of RHI Magnesita N.V totalling to €23.5 million.

5. Other changes in comparative information

Consolidated Statement of Profit or Loss

In 2019 RHI Magnesita initiated its Production Optimisation Plan and entered into the final phase of integration which led to a recognition of €112.1 million of restructuring expenses and asset write-downs. In line with the materiality principle this effect has been disclosed separately on the face of the Statement of Profit or Loss, the comparative figures have been adjusted accordingly.

Consolidated Statement of Cash Flows

Cash flows generated from operating activities have been repositioned within the Notes section and are now shown in Notes to Consolidated Statement of Cash Flows in order to improve peer comparability.

Segment reporting

Our internal management reporting is organised according to the activity of the customer. For the foundry customers this is the Steel segment as the majority of these customers are processing iron. Therefore, the responsibility of the foundry business has been moved from the Segment Industrial to Segment Steel in 2019. The information for the previous year was adjusted accordingly, impacting revenue by €8.7 million, Gross Profit by €4.0 million and segment assets by €3.6 million.

6. Methods of consolidation

Subsidiaries

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

The main operating companies of the RHI Magnesita Group and their core business activities are as follows:

Name and registered office of the company	Country of core activity	Core business activity
Didier-Werke Aktiengesellschaft, Germany	Germany	Production
Magnesit Anonim Sirketi, Turkey	Turkey	Mining, production, sales
Magnesita Mineração S.A., Brazil	Brazil	Mining
Magnesita Refractories Company, USA	USA	Mining, production, sales
Magnesita Refractories GmbH, Germany	Germany	Production
Magnesita Refratários S.A., Brazil	International	Production, sales
RHI Magnesita Trading B.V., Netherlands	International	Procurement, sales, supply chain
Orient Refractories Limited, India	India	Production, sales
RHI Canada Inc., Canada	Canada	Production, sales, provision of services
RHI Magnesita GmbH, Austria	International	Sales, R&D, financing
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 acquisition method is used to account for all business combinations. The purchase price for shares 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 recognised 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 technology, mining rights 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 acquisitions where less than 100% of shares in companies 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 recognised. This accounting policy choice can be exercised for each acquisition. For the acquisition of Magnesita, non-controlling interests have been measured at their proportionate share of Magnesita's identifiable net assets.

If a business combination is achieved in stages, the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date. Any gains and losses arising from such remeasurement are recognised in profit or loss.

After completing the purchase price allocation, the determined goodwill is allocated to the relevant cash-generating unit and tested for impairment. In accordance with the provisions of IFRS 3, negative goodwill is immediately recognised to profit or loss in other income after renewed measurement of the identifiable assets, liabilities and contingent liabilities.

Net assets of subsidiaries not attributable to RHI Magnesita N.V. are shown separately under equity as non-controlling interests. The basis for non-controlling interests is the equity after adjustment to the accounting and measurement principles of the RHI Magnesita Group and proportional consolidation entries.

Transaction costs which are directly related to business combinations are expensed as incurred. Contingent consideration included in the purchase price is recorded at fair value at initial consolidation.

When additional shares are acquired in entities 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 recorded in equity unless they lead to a loss of control.

All intragroup results are fully 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.

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Joint ventures and associates

Shares in joint ventures and associates are accounted for using the equity method. A joint venture is a joint arrangement between the RHI Magnesita 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.

An associate is an entity over which the RHI Magnesita Group has significant influence. Significant influence is the power to participate in the investee's financial and operating policy decisions without control or joint control. There is the rebuttable presumption that if a company holds directly or indirectly 20% of the shares of the investee or has other abilities (e.g. through seats in the supervisory board) to influence the company's financial and operating policy decisions it has significant influence.

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 ventures and associates is determined and recognised as goodwill. Goodwill is shown as part of investments in joint ventures and associates in the Statement of Financial Position.

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

RHI Magnesita examines at every reporting date whether there exist any objective indications of an impairment of the shares in joint ventures and associates. If such indications exist, the required impairment is determined as the difference between the recoverable amount and the carrying amount of the joint ventures and associates and recognised in profit and loss in the item share of profit of joint ventures and associates.

When the group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity. If the equity-accounted investment subsequently reports profits, the entity resumes recognising its share of profits only after those profits equal or exceed its share of losses not recognised.

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.

7. 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 Magnesita N.V.

The items included in the Financial Statements of each Group company are 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 recognised in profit or loss under net expense on foreign exchange effects and related derivatives. Unrealised currency translation differences from monetary items which form part of a net investment in a foreign operation are recognised in other comprehensive income in equity. When a non-derivative financial instrument is designated as the hedging instrument in a net investment hedge in a foreign operation, the effective portion of the foreign exchange gains and losses is recognised in the currency translation difference reserve within equity. Non-monetary items in foreign currency are carried at historical rates.

If foreign companies are deconsolidated, the currency translation differences are recognised 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 cease to form part of a net investment in a foreign operation or when in case of a net investment hedge the foreign operation is disposed, the currency translation differences previously recognised in other comprehensive income are reclassified to profit or loss.

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 or loss 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 recognised as assets and liabilities of the respective subsidiary and translated at the closing rate.

RHI Magnesita has evaluated the effect of applying IAS 29 "Financial Reporting in Hyperinflationary Economies" in Argentina with the conclusion that the effect on the Consolidated Financial Statements is considered immaterial to the Group.

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

Currencies	1 € =	Closing rate		Average rate ¹⁾	
		31.12.2019	31.12.2018	2019	2018
Argentine Peso	ARS	67.09	43.10	52.94	32.58
Brazilian Real	BRL	4.51	4.44	4.41	4.29
Canadian Dollar	CAD	1.46	1.56	1.49	1.53
Chilean Peso	CLP	842.57	793.69	792.03	753.18
Chinese Renminbi Yuan	CNY	7.81	7.87	7.73	7.81
Indian Rupee	INR	79.90	79.88	78.84	80.45
Mexican Peso	MXN	21.19	22.49	21.74	22.70
Norwegian Krone	NOK	9.88	9.94	9.86	9.62
Pound Sterling	GBP	0.85	0.90	0.88	0.89
Swiss Franc	CHF	1.09	1.13	1.11	1.15
South African Rand	ZAR	15.78	16.46	16.24	15.45
US Dollar	USD	1.12	1.14	1.12	1.18

1) Arithmetic mean of the monthly closing rates.

8. Principles of accounting and measurement

Goodwill

Goodwill is recognised 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 recognised through profit or loss immediately after a new assessment of the identified assets, liabilities and contingent liabilities.

Other intangible assets

Mining rights were recognised in the course of the purchase price allocation for Magnesita and are amortised based on the depletion of the related mines. Depletion is calculated based on the volume mined in the period in proportion to the total estimated volume.

Customer relations were recognised in the course of purchase price allocations of acquired subsidiaries and are amortised on a straight-line basis over the expected period of useful life.

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

Development costs are only capitalised if the allocable costs of the intangible asset can be measured reliably during its development period. Moreover, capitalisation 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

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the related development costs must be expected. Capitalised development costs are amortised on a straight-line basis over the expected useful life, however, with a maximum useful life of ten years, and recognised 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 programmes and represent a significant extension or improvement over the original condition of the software are capitalised 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 a proportional share of overheads. Software is predominantly amortised 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 amortisation and impairments. Intangible assets with a finite useful life are amortised on a straight-line basis over the expected period of useful life. The following table shows the most important useful lives:

Customer relationships	6 to 15 years
Patents	7 to 18 years
Brand rights	20 years
Land use rights	30 to 65 years
Software	4 years

Property, plant and equipment

Property, plant and equipment is measured at acquisition or production cost, less accumulated depreciation and accumulated impairments. These assets are depreciated on a straight-line basis over the expected useful life, calculated pro rata from the month the asset is available for use.

IFRS 16 "Leases", supersedes the previous IAS 17 "Leases" as well as the related interpretations and is applicable to financial years beginning on or after 1 January 2019. For the amounts relating to leases recognised in the Statement of Financial Position and in the Statement of Profit or Loss see the overview of the positions affected by IFRS 16 under Note (2).

Production costs of internally generated assets comprise direct costs as well as a proportionate share of capitalisable overheads and borrowing costs. If financing can be specifically allocated to an investment, borrowing costs are capitalised as production costs. If no direct connection can be made, the average rate on borrowed capital of the Group is used as the capitalisation rate due to the central funding of the Group.

Expected demolition and disposal costs at the end of an asset's useful life are capitalised 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. Depreciation of other material property, plant and equipment is based on the following useful lives in the RHI Magnesita 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

RHI Magnesita's leases include mainly arrangements regarding land and buildings, technical equipment and machinery as well as other equipment, furniture and fixtures. The average lease term is eleven years for land and buildings, five years for technical equipment and four years for other equipment, furniture and fixtures. Impacts resulting from extension and termination options, as well as residual value guarantees are immaterial.

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

When components of plant or equipment have to be replaced at regular intervals, the relevant replacement costs are capitalised as incurred if the criteria per IAS 16 have been met. The carrying amount of the replaced components is derecognised. 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 realisable value and the carrying amount, are recognised as income or expense in the Consolidated Statement of Profit or Loss.

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

Property, plant and equipment, including Right-of-use assets, 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 recognised in the Statement of Profit or Loss. If the reason for an impairment loss recognised in the past for property, plant and equipment and for other intangible assets ceases to exist, a reversal of impairment on the amortised acquisition and production costs is recognised 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 goodwill, the difference is apportioned proportionately to the remaining non-current tangible and intangible assets of the CGU. Reversals of impairment losses recognised 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 EBIT or, in the case of restructuring, in restructuring costs.

Cash-generating units (CGU)

In the Group 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 market appearance and are as such responsible for cash inflows. CGU's are determined based on group of assets that can generate cash inflows independent of other assets.

The organisational 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 Magnesita's long-standing customer relationships or knowledge of the customer's production facilities and processes further support these units. Product knowledge is manifested in the application-oriented knowledge of chemical, physical and thermal properties of RHI Magnesita products. The services offered extend over the life cycle of RHI Magnesita

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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 the Group's production process. These factors determine cash inflow to a significant extent and consequently form the basis for the CGU structures.

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 line of business (glass, cement/lime, non-ferrous metals and environment, energy, chemicals) forms a separate CGU. All raw material producing facilities with the exception of Norway are combined in one CGU.

The plant in Porsgrunn, Norway, is 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 optimisation measures due to the dimension and the special situation at the Porsgrunn plant. This organisation goes beyond plant management and includes sub-tasks of the administration processes.

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. As in the previous year, the terminal value is based on a growth rate derived from the difference of the current and the possible degree of utilisation of the assets.

The net cash flows are discounted using a discount rate that is calculated taking into account the weighted average cost of capital of 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 discount rate ranges between 5.4% and 8.9% in the year 2019. In the previous year, the discount rates ranged between 10.1% and 13.0%. Main reason for higher discount rates in 2018 was that the equity beta for the peer group increased as the peer group companies outperformed the market index during the period under consideration. In addition, in 2018 one member of the peer group did not pass the statistical test (t-test) and consequently was excluded from the calculation. The adoption of IFRS 16 has no material impact on the discount rate.

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 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.

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

Basis for the impairment test was the 2020 Budget and Long-Term Plan 2021 to 2025, which was approved by the Board, and developed with the growth rates used in the forward-looking business plan. To forecast the CGUs' cash flows, management predicts the growth rate using external sources for the development of the customer's industries and expert assumptions. This includes forecasts about the regional growth of the steel production and the output of the non-steel clients. In combination with the development of the specific refractory consumption, which considers technological improvements, the growth rates for the individual CGUs are determined.

	2019			2018		
	Discount rate before Tax	Perpetual annuity growth rate	Goodwill in € million	Discount rate before Tax	Perpetual annuity growth rate	Goodwill in € million
Steel Division – Linings	7.9%	0.9%	88.6	11.3%	0.9%	88.4
Steel Division – Flow Control	7.7%	0.9%	27.2	11.3%	0.9%	27.3

The remaining goodwill of €1.7 million (31.12.2018: €1.7 million) is spread among the remaining CGU's, all of them having sufficient headroom.

Result of impairment test

Based on the impairment test conducted at 31 December 2019, the recoverability of the assets was demonstrated in all CGUs, except for the CGU Norway.

The property, plant and equipment of CGU Norway has been fully impaired as a result of impairment testing in previous years. This was caused by production costs exceeding the price of comparable raw materials on the market. Given the high raw material prices in 2018 and the lack of Fused Magnesia in the market, management decided to increase the production of Fused Magnesite at the plant. Fused Magnesia is a key raw material used for refractory bricks sold to Linings customers. At the adoption date of IFRS 16, the financial projections supported the recognition of the right-of-use assets according to IFRS 16, but future profitability was insufficient to reverse previously recognised impairments. In the fourth quarter of 2019 the Fused magnesia prices declined and the availability on the market allows RHI Magnesita to buy the material from external sources at lower cost.

Considering the current low prices for Fused Magnesia from China, the cash flow generated by the facility in Norway is negative. The cash flow is calculated based on the external sales of products manufactured in Porsgrunn and the value of internal supply of Fused Magnesia. This value is calculated comparing the manufacturing costs versus potential costs of sourcing comparable material from external sources.

As a result, RHI Magnesita has to write-down the non-current assets of CGU Norway totalling € 13.9 million (thereof real estate, land and buildings € 0.9 million, technical equipment, machinery € 1.4 million, other plant, furniture and fixtures € 0.3 million, plant under construction € 0.8 million, right-of-use asset land and buildings € 10.4 million, right-of-use asset technical equipment and machinery € 0.1 million) as of December 2019 in accordance with IAS 36.

As in the previous year, no reversals of impairments were made in the financial year 2019.

Other financial assets and liabilities

Financial assets are classified as at amortised cost, if the contractual cash flows of the financial asset include solely payments of principal and interest and they are held in order to collect the contractual cash flows. If the contractual cash flows of financial assets include solely payments of principal and interest, but they are held in order to both collect the contractual cash flows and sell the financial asset, then the financial assets are classified as at fair value through other comprehensive income. If the contractual cash flows of financial assets do not solely include payments of principal and interest, then these financial assets are classified as at fair value through profit or loss.

The Group initially recognises securities on the trading date when the entity becomes a party to the contractual provisions of the instruments. All other financial assets and financial liabilities are initially recognised on the date when they are originated. Financial instruments, except for trade receivables, are initially recognised at fair value. Financial assets are derecognised if the entity transfers substantially all the risks and rewards or if the entity neither transfers nor retains substantially all the risks and rewards and has not retained control. Financial liabilities are derecognised when the contractual obligations are settled, withdrawn or have expired.

The item other financial assets in the Consolidated Statement of Financial Position of RHI Magnesita 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 as well as liabilities to fixed-term or puttable non-controlling interests.

Shares in non-consolidated subsidiaries (RHI Magnesita exercises control but the subsidiary is not-fully consolidated due to materiality reasons), investments in other companies as well as securities are classified as at fair value through profit or loss in the RHI Magnesita Group. For materiality reasons if such financial assets are of minor significance cost serves as an approximation of fair value. Directly attributable transaction costs are recognised in profit or loss as incurred. Securities at fair value through profit or loss are measured at fair value and changes therein, including any interest income, are recognised in profit or loss.

Financial receivables are measured at amortised 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 according to the impairment model described below. Foreign currency receivables are translated at the closing rate.

Derivative financial instruments, which are not part of an effective hedging relationship in accordance with IFRS 9 or do not meet the hedge accounting requirements, must be classified as at fair value through profit or loss and measured at fair value through profit or loss. In the RHI Magnesita Group, this measurement category includes derivatives related to purchase obligations, forward exchange contracts, embedded derivatives in open orders that are denominated in currencies other than the functional currency as well as derivative financial instruments in the form of interest rate swaps.

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Derivative financial instruments relating to purchase obligations are accounted for in accordance with IFRS 9 and concern a long-term power supply contract which provides for the purchase of fixed amounts of electricity at fixed prices. 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. Unrealised valuation gains or losses and results from the realisation are recognised to the Statement of Profit or Loss under net expense of foreign exchange effects and related derivatives. The underlying transactions for the derivatives are carried at amortised cost.

For derivative financial instruments, which are incorporated in an effective hedging relationship in accordance with IFRS 9, the provisions regarding hedge accounting are applied. RHI Magnesita has concluded derivative financial instruments in the form of interest rate swaps to hedge the cash flow risk of financial liabilities carrying variable interest. 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 Magnesita would receive or has 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 unrealised gain or loss. Only at the time of the realisation 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 recognised immediately in the Statement of Profit or Loss. If the underlying transaction is no longer expected to take place, the accumulated amount previously recorded in other comprehensive income is reclassified to the Statement of Profit or Loss.

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge are recognised in Other Comprehensive Income and presented in the currency translation difference reserve within equity while any gains or losses relating to the ineffective portion are recognised in the Statement of Profit or Loss. On disposal of the foreign operation, the cumulative amount of any such gains or losses recorded in Other Comprehensive Income is reclassified to the Statement of Profit or Loss. The Group uses a loan to hedge its exposure to foreign exchange risk on its investments in foreign subsidiaries.

Capital shares of non-controlling interests in subsidiaries with a fixed term are recognised under other financial liabilities in the Consolidated Statement of Financial Position in accordance with IAS 32. The liabilities are measured at amortised cost. The share of profit attributable to non-controlling interests is recognised under other net financial expenses in the Statement of Profit or Loss. Dividend payments to non-controlling interests reduce liabilities.

Furthermore, the RHI Magnesita 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 recognised to equity at the time of initial recognition without affecting profit or loss. Subsequently, the liability to puttable non-controlling interests is measured at amortised cost and changes are recorded in net finance costs.

Impairment of financial assets

Impairment of financial instruments is based on expected credit losses (ECL). Expected credit losses are defined as the difference between all contractual cash flows the entity is entitled to according to the contract and the cash flows that the entity expects to receive. The measurement of expected credit losses is generally a function of the probability of default, loss given default and the exposure at default.

RHI Magnesita recognises a loss allowance for expected credit losses on investments in debt instruments that are measured at amortised cost, trade receivables and contract assets. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group recognises lifetime ECL for trade receivables and contract assets by applying the simplified approach. The expected credit losses on these financial assets are generally estimated using a provision matrix based on the Group's historical credit loss experience for customer groups located in different geographic regions. Forward-looking information is incorporated in the determination of the applicable loss rates for trade receivables. For the Group, the general economic development of the countries in which it sells its goods and services is the relevant for the determination if adjustment of the historical loss rates is necessary.

For all other financial instruments, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. However, if the credit risk on the financial instrument has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to 12-month ECL.

Lifetime ECL represents the expected credit losses that will result from all possible default events over the expected life of a financial instrument. In contrast, 12-month ECL represents the portion of lifetime ECL that is expected to result from default events on a financial instrument that are possible within 12 months after the reporting date.

RHI Magnesita makes use of the practical expedient that if a financial instrument has an 'investment grade' rating that it is assumed to be of low credit risk and no significant increase in the credit risk took place and the expected credit loss is calculated using the 12-month ECL. Among other factors the Group considers a significant increase in credit risk to have taken place when contractual payments are more than 30 days past due.

The Group considers the following as constituting an event of default, hence leading to a credit-impaired financial asset:

- significant financial difficulty of the issuer or the borrower;
- a breach of contract;
- the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower concessions that the lender(s) would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation;
- the disappearance of an active market for that financial asset because of financial difficulties.

In addition to these factors, RHI Magnesita applies the presumption in regard to trade receivables, that a default event has occurred when such receivables are 180 days past due unless the Group has reasonable and supportable information for anything different. 180 days past due are used as an objective evidence of default as this is presumed to reflect the Group's customer industry.

For those financial instruments where objective evidence of default is present an individual assessment on expected credit losses takes place.

Generally, financial instruments are written off when there is no reasonable expectation of recovery. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in profit or loss.

Deferred taxes

Deferred taxes are recognised 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 recognised on temporary differences to the extent 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.

Deferred taxes are recognised 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 recognised 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 calculation of deferred taxes is based on the tax rate expected in the individual countries at the time the deferred tax asset is realised or the liability is settled 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 25.0%. Deferred tax assets and liabilities of the Brazilian group companies are measured mainly at 34.0%. Tax rates from 12.5% to 34% (31.12.2018: 12.5% to 34.9%) were applied to the other 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 relate to income taxes due from/to the same tax authorities.

Inventories

Inventories are stated at the lower of cost or net realisable value as of the reporting date. The determination of acquisition cost of purchased inventories is based on the average cost. Finished goods and work in process are valued at fixed and variable production cost. The

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net realisable 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 realisable value.

Trade and other current receivables

Trade receivables are recognised initially at the amount of consideration that is unconditional, unless they contain significant financing components when they are recognised at fair value and subsequently carried at amortised cost minus any valuation allowances. Valuation allowances are calculated in accordance with the simplified approach of the impairment model for financial instruments (see impairment of financial assets above).

In case of factoring arrangements trade receivables are derecognised if RHI Magnesita transfers substantially all the risks and rewards or does not retain control.

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

Emission certificates

Emission certificates acquired for a consideration are carried at cost and recognised 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 recognised 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 recognised as revenue.

Cash and cash equivalents

Cash and cash equivalents includes cash on hand, cheques received and cash at banks with an original term of a maximum of three months. 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.

Disposal groups held for sale

Non-current assets and disposal groups which can be sold in their present state and whose sale is highly probable are classified as held for sale. Assets and liabilities which are intended to be sold together in a single transaction represent a disposal group held for sale and are shown separately from other assets and liabilities in the Statement of Financial Position.

Non-current assets and disposal groups which are classified as held for sale are carried at the lower of fair value less costs to sell and carrying amount. Impairments are initially allocated to existing goodwill and then to the non-current assets on a pro-rata basis, based on the carrying amount of each individual asset of the disposal group. Impairments beyond that are allocated to current assets pursuant to the liquidity principle and recognised through profit or loss in the item other expenses. Non-current assets are not depreciated as long as they are classified as held for sale.

Borrowings and other financial liabilities

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

A financial liability is derecognised when the obligation under the liability is discharged (by payment or legal release), cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. The difference in the respective carrying amounts is subsequently recognised in the Statement of Profit or Loss, including any costs or fees.

Provisions

Provisions are recognised 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 discounting 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.

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 external 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 recognised under provisions for pensions. However, if the plan assets exceed the obligations, the asset recognised 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 recognised in a period includes 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 required to calculate these obligations, include the discount rate, increases in wages/salaries and pensions, retirement starting age and probability of employee turnover and actual claims. The calculation is based on local demographic parameters.

Interest rates used are the rates on high-quality corporate bonds issued with comparable maturities and currencies are applied to determine the present value of pension obligations. In countries where there is not a 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 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.

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

Other personnel provisions

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

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 31 December 2002 receive a one-off lump-sum termination benefit as defined by Austrian labour legislation if the employer terminates the employment relationship or when the employee retires. 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 12 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 31 December 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 employ-

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ees 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.

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 are mainly related to service anniversary bonuses 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 labour 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.

In 2018, the Remuneration Committee of RHI Magnesita approved a new Remuneration Policy for the members of senior management of the Group. Based on this new long-term incentive programme, share-options are granted. Each reporting date the provisional amount per due date is recognised in equity.

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

Other provisions

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

Provisions for restructuring are created providing 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.

The Group recognises provisions for demolition and disposal costs and environmental damages. RHI Magnesita's facilities and its refractory, exploration and mining operations are subject to environmental and governmental laws and regulations in each of the jurisdictions in which it operates. These laws govern, among other things, reclamation or restoration of the environment in mined areas and the clean-up of contaminated properties. Provisions for demolition and disposal costs and environmental damages include the estimated demolition and disposal costs of plants and buildings as well as environmental restoration costs arising from mining activities, based on the present value of estimated cash flows of the expected costs. The estimated future costs of deactivation of assets are reviewed annually and adjusted, if appropriate.

A provision for an onerous or unfavourable contract is recognised when the expected benefits to be derived from a contract are lower than the unavoidable cost of meeting its obligations under the contract. The non-current provisions are measured at the present value of the unavoidable costs of meeting the obligation under the contract which exceed the economic benefits expected to arise from that contract.

Provisions for labour and civil contingencies are recognised for all risks referring to legal proceedings that represent probable loss. Assessment of the likelihood of loss includes analysis of available evidence, including the opinion of internal and external legal advisors of the RHI Magnesita Group.

Trade payables and other current liabilities

These liabilities are initially recognised at fair value, and subsequently measured at amortised cost. Liabilities denominated in foreign currencies are translated at the closing rate.

Government grants

Government grants to promote investments are recognised 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 recognised to profit or loss in the periods in which the subsidised expenses are incurred. In the RHI Magnesita 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 from the sale of goods and services is recognised at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The transaction price is the expected consideration to be received, to the extent that it is highly probable that there will not be a significant reversal of revenue in future periods. If the consideration in a contract includes a variable amount, the Group estimates the amount of consideration to which it will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved. The average credit term is 60 days upon transfer of goods or service. The Group is using the practical expedient in IFRS 15 and does not adjust the promised amount of consideration for the effects of a significant financing component if it expects, at contract inception, that the period between the transfer of the promised good or service to the customer and payment will be one year or less. At contract inception, the Group identifies the goods or services promised in the contract and assesses which of the promised goods or services shall be identified as separate performance obligations. Promised goods or services give rise to separate performance obligations if they are capable of being distinct. Revenue is recognised as control is transferred, either over time or at a point of time. Control is defined as the ability to direct the use of and obtain substantially all of the economic benefits from an asset.

Regarding delivery contracts of refractory products the goods promised are distinct and control of the goods is passed to the customer typically when physical possession has been transferred to the customer. The transport service does not give rise to a separate performance obligation to which a part of revenue would have to be allocated, as this service is performed before control of the products is transferred to the customer.

In consignment arrangements, RHI Magnesita Group ships products to a customer but retains control of the goods until a predetermined event occurs. Revenue is not recognised on delivery of the products to the customer if the delivered products are held on consignment, but generally when the withdrawal of the products from the consignment stock occurs. Most of the products within consignment arrangements have a high stock turn rate.

The Group provides services (e.g. supervision, installation) that are either sold separately or bundled together with the sale of products to a customer. Contracts for bundled sales of products and installation services are comprised of two performance obligations as the promises to transfer products and provide services are capable of being distinct and separately identifiable. Accordingly, the transaction price allocated is based on the relative stand-alone selling prices of the product and services. Revenue from services is recognised over time, using an input method to measure progress towards complete satisfaction of the service, because the customer simultaneously receives and consumes the benefits provided by the Group.

Contracts for bundled sales of refractory products and non-refractory products (e.g. machines) provided to the customer free of charge comprise two performance obligations that are separately identifiable. Consequently, the Group allocates the transaction price based on the relative stand-alone selling prices of these performance obligations and allocates revenue to the non-refractory product which is delivered free of charge.

For contracts in the Steel segment with variable payment arrangements (transaction price depends on the customer's production performance) management has determined that the promise to transfer each of the products and services to the customer is not separately identifiable from all the other promises in the context of such contracts. Therefore, only one single performance obligation exists – the performance of a management refractory service. Further information is provided under Note (10). With regards to these contracts, revenue is recognised over time on the basis using the output-oriented method (e.g. quantity of steel produced in the customer aggregate serviced).

Expected penalty fees from guaranteed durabilities when using refractory products are considered as a variable consideration in the form of a contract or a refund liability. Based on the expected value method, the amount of the variable consideration is estimated. The estimation of the variable consideration is not subject to a constraint as the Group has significant experience with promising durabilities. Once the uncertainty related to guaranteed durabilities ceases to exist, a significant reversal of revenue is highly unlikely. All other warranties guarantee that the transferred products correspond to the contractually agreed specifications and are classified as assurance type warranties. Consequently, no separate distinct performance obligation to the customer exists.

If transfer of goods or services to a customer is performed before the customer pays consideration or before payment is due, a contract asset, excluding any amounts presented as a receivable is recognised. A contract asset is an entity's right to consideration in exchange for goods or services that the entity has transferred to a customer.

If a customer pays consideration before the entity transfers a good or service to the customer, the entity shall present the contract as a contract liability when the payment is made, or the payment is due (whichever is earlier). A contract liability is an entity's obligation to transfer goods or services to a customer for which the entity has received consideration (or an amount of consideration is due) from the customer.

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Contract costs are the incremental costs of obtaining a contract and must be recognised as an asset if the company expects to recover those costs. As a practical expedient, RHI Magnesita expenses such costs when incurred, if the amortisation period would be 12 months or less.

In general, the term of customer contracts in accordance with IFRS 15 is no longer than one year. Therefore, the Group decided, as a practical expedient, not to disclose the remaining performance obligations for contracts with original expected duration of less than one year.

Expenses are recognised to the Statement of Profit or Loss when a service is consumed, or the costs are incurred.

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

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

Income taxes are recognised according to the local regulations applicable to each company. Current and deferred income taxes are recognised 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.

RHI Magnesita GmbH, Vienna, Austria, acts as the head of a corporate tax group. A tax compensation agreement was concluded in 2017 between the head of the group and eight Austrian group members. 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 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 insofar as the loss can be utilised within the group. In case the losses of a group member were compensated (negative tax allocation payment) and this group member generates taxable income within the next three years (after compensation), the positive tax allocation amounts to 12.5%. In case of a loss in the tax group, an unused 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 were allocated to the head of the group.

In Germany, Didier-Werke Aktiengesellschaft, Wiesbaden, acts as the head of a tax group for corporate and trade tax purposes. The seven tax group members are obliged to transfer their profit or loss to Didier-Werke Aktiengesellschaft based on a profit or loss transfer agreement. Additionally, Didier-Werke Aktiengesellschaft, Wiesbaden, acts as the head of a tax group for VAT purposes with ten German tax group members. Furthermore, Rearden G Holdings Eins GmbH, Hagen, acts as the head of a two-level structure tax group with four group members for corporate, trade tax and VAT purposes.

9. Segment reporting

The RHI Magnesita Group comprises the operating segments Steel and Industrial. The segmentation of the business activities reflects the internal control and reporting structures and is regularly reported to the Chief Executive Officer.

The Steel segment specialises in supporting customers in the steel-producing and steel-processing industry. The Industrial segment serves customers in the glass, cement/lime, non-ferrous 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 globally located manufacturing sites, which extract and process raw materials, are combined in one organisational unit. The allocation of manufacturing cost of the production plants to the Steel and Industrial Divisions is based on the supply flow.

Statements of Profit or Loss up to gross profit are available for each segment. The gross profit serves the management of the RHI Magnesita Group for internal performance management. Selling and marketing expenses, general and administrative expenses, restructuring and write-down expenses, other income and expenses, profit of joint ventures, 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. 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 (goodwill, intangible assets and property, plant and equipment) are disclosed on the basis of the respective locations of the companies of the RHI Magnesita Group.

10. Critical accounting judgments and key sources of estimation uncertainty

The RHI Magnesita 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.

Critical accounting judgments

Revenue recognition

For customer contracts in the Steel segment with variable payment arrangements where the transaction price depends on the customer's production performance, (e.g. quantity of steel produced) management has determined that the commitment to transfer each of the products and services to the customer is not separately identifiable from the other commitments in the context of such contracts. The customer expects complete refractory management for the agreed product areas in the steel plant in order to enable steel production. Thus, only one performance obligation, performance of a management refractory service, exists.

Trade payables subject to supply chain finance arrangements

RHI Magnesita participates in supply chain finance arrangements whereby raw material suppliers may elect to receive a discounted early payment of their invoice from a bank rather than being paid in line with the agreed contractual payment terms. The Group settles the amount owed to the bank. The invoice due date as well as the value of the original liability remains unaltered. RHI Magnesita assesses that these arrangements do not modify the terms of the original trade payable, and therefore financial liabilities subject to supply chain finance arrangements continue to be classified as trade payables.

There are no other critical accounting judgments made in the preparation of the Consolidated Financial Statements.

Key sources of estimation uncertainty

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, estimates are necessary for the determination of fair values by means of discounted cash flows, including the duration, amount of future cash flows, and 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 estimates in the context of purchase price allocations on major acquisitions, RHI Magnesita consults with independent experts who accompany the execution of the discretionary decisions and record it in appraisal 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 €1,424.0 million at 31 December 2019 (31.12.2018: €1,427.4 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 (CGUs).

As part of the annual planning process, the impairment test is conducted for the CGUs defined in the RHI Magnesita Group, thus considering 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 of impairments.

Impairment of goodwill and other intangible assets with indefinite useful life

The effect of an adverse change by plus 10% in the estimated interest rates as of 31 December 2019 or by minus 10% in the contribution margin would not result in an impairment of goodwill recognised (carrying amount 31.12.2019: 117.5 million, 31.12.2018: €117.4 million) nor in an impairment charge to intangible assets with indefinite useful lives (carrying amount at 31.12.2019 and 31.12.2018: €1.8 million).

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Intangible assets and property, plant and equipment

Management uses its experience to estimate the remaining useful life of an asset. The actual useful life of an asset may be impacted by an unexpected event that may result in an adjustment to the carrying amount of the asset.

Provisions for pensions and termination benefits

The present value of pension and termination benefit obligations depends on several 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 nature 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, 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	31.12.2019		31.12.2018	
		Pension plans	Termination benefits	Pension plans	Termination benefits
Present value of the obligations		557.9	52.0	506.6	55.5
Interest rate	+0.25	(17.1)	(1.4)	(14.0)	(1.5)
	(0.25)	17.4	1.4	15.0	1.5
Salary increase	+0.25	1.1	1.4	0.9	1.5
	(0.25)	(1.2)	(1.3)	(1.7)	(1.4)
Pension increase	+0.25	11.6	-	10.3	-
	(0.25)	(11.4)	-	(10.1)	-
Life expectancy	+1 year	21.0	-	17.2	-
	(1) year	(20.7)	-	(17.3)	-

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 semi-annually; all other assumptions are reviewed at the end of the year.

Other provisions

The recognition and measurement of other provisions totalling €168.3 million (31.12.2018: €162.2 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.

The majority of the provisions refers to an unfavourable contract which was recognised in the course of the acquisition of Magnesita and is mainly based on an estimate of forgone profit margins compared to market conditions.

Income taxes

The calculation of income taxes of RHI Magnesita N.V. and its subsidiaries is based on the tax laws applicable in the individual countries. Due to their complexity, the tax items presented in the Consolidated Financial Statements may be subject to different interpretations by local finance authorities. When determining the amount of the capitalisable deferred tax assets, an estimate is required of future taxable income. 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 €127.9 million (31.12.2018: €92.7 million) would have to be increased by €1.7 million (31.12.2018: €0.6 million) or reduced by €2.0 million (31.12.2018: €0.6 million).

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

11. Goodwill

Goodwill developed as follows:

in € million	2019	2018
Cost at beginning of the year	119.3	122.1
Currency translation	0.1	(2.8)
Cost at year-end	119.4	119.3
Accumulated impairment at beginning of the year	(1.9)	(1.9)
Accumulated impairment at year-end	(1.9)	(1.9)
Carrying amount at year-end	117.5	117.4

12. Other intangible assets

Other intangible assets changed as follows in the financial year 2019:

in € million	Mining rights	Customer relationship	Internally generated intangible assets	Other intangible assets	Total
Cost at 31.12.2018	169.4	108.7	50.5	129.2	457.8
Currency translation	(0.3)	0.6	0.1	0.6	1.0
Additions	0.0	0.0	3.4	6.3	9.7
Retirements and disposals	0.0	0.0	(1.6)	(4.4)	(6.0)
Reclassifications	0.0	0.0	0.0	2.4	2.4
Cost at 31.12.2019	169.1	109.3	52.4	134.1	464.9
Accumulated amortisation 31.12.2018	4.7	17.8	34.1	66.8	123.4
Currency translation	0.0	(0.1)	0.1	0.4	0.4
Amortisation charges	3.3	7.5	4.5	11.1	26.4
Impairment charges	0.0	0.0	0.0	0.6	0.6
Retirements and disposals	0.0	0.0	(1.6)	(3.3)	(4.9)
Accumulated amortisation 31.12.2019	8.0	25.2	37.1	75.6	145.9
Carrying amounts at 31.12.2019	161.1	84.1	15.3	58.5	319.0

Notes

continued

Other intangible assets changed as follows in the previous year:

in € million	Mining rights	Customer relationship	Internally generated intangible assets	Other intangible assets	Total
Cost at 31.12.2017	179.2	100.0	47.6	143.1	469.9
Currency translation	(9.8)	(2.1)	0.0	(2.6)	(14.5)
Additions	0.0	0.0	2.9	1.2	4.1
Retirements and disposals	0.0	0.0	0.0	(2.5)	(2.5)
Reclassifications	0.0	10.8	0.0	(10.0)	0.8
Cost at 31.12.2018	169.4	108.7	50.5	129.2	457.8
Accumulated amortisation 31.12.2017	0.8	1.1	30.2	64.8	96.9
Currency translation	0.0	0.0	0.0	(0.8)	(0.8)
Amortisation charges	3.9	6.5	3.9	14.3	28.6
Retirements and disposals	0.0	0.0	0.0	(1.3)	(1.3)
Reclassifications	0.0	10.2	0.0	(10.2)	0.0
Accumulated amortisation 31.12.2018	4.7	17.8	34.1	66.8	123.4
Carrying amounts at 31.12.2018	164.7	90.9	16.4	62.4	334.4

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

The customer relations of Magnesita have a carrying amount of €83.6 million (31.12.2018: €90.0 million) and a remaining useful life of 9 to 13 years.

Other intangible assets include in particular acquired patents, trademark rights, software, and land use rights. The land use rights have a carrying amount of €23.0 million (31.12.2018: €23.4 million) and a remaining useful life of 18 to 58 years.

There are no restrictions on the sale of intangible assets.

13. Property, plant and equipment

Property, plant and equipment developed as follows in the year 2019 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	Right-of-use assets	Total
Cost at 31.12.2018	618.4	37.5	1,166.9	311.5	132.4	0.0	2,266.7
Initial recognition IFRS 16	0.0	0.0	0.0	0.0	0.0	62.0	62.0
Currency translation	0.4	(0.2)	1.7	0.9	(0.5)	0.5	2.8
Additions	3.4	(1.0)	11.6	7.4	132.2	17.7	171.3
Reassessment / Modification of leases (IFRS 16)	0.0	0.0	0.0	0.0	0.0	(3.9)	(3.9)
Retirements and disposals	(1.5)	(0.5)	(21.2)	(12.8)	(0.8)	(0.2)	(37.0)
Reclassifications	20.6	0.8	51.4	14.6	(89.8)	0.0	(2.4)
Cost at 31.12.2019	641.3	36.6	1,210.4	321.6	173.5	76.1	2,459.5
Accumulated depreciation 31.12.2018	261.8	22.5	657.2	230.3	0.1	0.0	1,171.9
Currency translation	0.5	(0.2)	1.5	0.9	0.0	0.1	2.8
Depreciation charges	13.4	1.6	99.0	17.7	0.0	14.5	146.2
Impairment charges	8.9	0.0	38.7	1.1	5.9	10.5	65.1
Retirements and disposals	(1.3)	(0.3)	(19.3)	(12.2)	0.0	(0.2)	(33.3)
Accumulated depreciation 31.12.2019	283.3	23.6	777.1	237.8	6.0	24.9	1,352.7
Carrying amounts at 31.12.2019	358.0	13.0	433.3	83.8	167.5	51.2	1,106.8

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 at 31.12.2017	630.1	33.8	1,155.6	298.2	99.4	2,217.1
Currency translation	(14.8)	(0.7)	(22.8)	(3.0)	(3.8)	(45.1)
Additions	2.9	0.3	9.1	11.2	99.4	122.9
Retirements and disposals	(8.3)	0.0	(12.4)	(6.7)	0.0	(27.4)
Reclassifications	8.5	4.1	37.4	11.8	(62.6)	(0.8)
Cost at 31.12.2018	618.4	37.5	1,166.9	311.5	132.4	2,266.7
Accumulated depreciation 31.12.2017	256.8	21.3	575.8	220.7	0.8	1,075.4
Currency translation	(1.1)	(0.1)	(1.5)	(1.1)	0.0	(3.8)
Depreciation charges	12.8	1.3	93.9	16.8	0.0	124.8
Retirements and disposals	(6.9)	0.0	(11.3)	(6.3)	0.0	(24.5)
Reclassifications	0.2	0.0	0.3	0.2	(0.7)	0.0
Accumulated depreciation 31.12.2018	261.8	22.5	657.2	230.3	0.1	1,171.9
Carrying amounts at 31.12.2018	356.6	15.0	509.7	81.2	132.3	1,094.8

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continued

The item prepayments made and plant under construction includes plant under construction with a carrying amount of €163.5 million (31.12.2018: €129.9 million), with the sinterplant and the brickplant in Chizhou, China, representing the largest investment project under construction in 2019 as well as the modification of the smelter at the site in Radenthein, Austria, representing the largest investment project under construction in 2018. Information on impairment is provided under Note (8).

There are no restrictions on the sale of property, plant and equipment.

14. Investments in joint ventures and associates

The following investments in joint ventures and associates are accounted for using the equity method in the RHI Magnesita Consolidated Financial Statements:

in € million	31.12.2019	31.12.2018
Investments in joint ventures	19.5	19.6
Investments in associates	0.0	2.2
Carrying amount at year-end	19.5	21.8

Joint ventures

The RHI Magnesita Group holds a share of 50% (2018: 50%) in MAGNIFIN Magnesiaprodukte GmbH & Co KG ("MAGNIFIN"), a private 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 Magnesita has a residual interest in the net assets of the company and accordingly classified its share as a joint venture. There are no listed market prices available.

The following table summarises the income and expenses of MAGNIFIN:

in € million	2019	2018
Revenue	39.4	38.8
Profit before income tax	20.0	17.9
Depreciation	1.5	1.5
Interest expense	0.1	0.2
Other comprehensive (loss)/income	(0.3)	0.0
Total comprehensive income	19.7	17.9

Income taxes on the share of profit of MAGNIFIN amounting to €2.5 million (2018: €2.4 million) are recognised by the head of the tax group, RHI Magnesita GmbH, Vienna, Austria, due to the legal form of the joint venture and transferred to Veitscher Vertriebsgesellschaft m.b.H., Vienna, Austria, in accordance with the provisions of the tax compensation agreement.

The net assets of MAGNIFIN are shown in the table below:

in € million	31.12.2019	31.12.2018
Non-current assets	8.3	8.9
Current assets (without cash and cash equivalents)	14.7	11.2
Cash and cash equivalents	13.4	16.5
Non-current liabilities and provisions	(3.9)	(4.0)
Current provisions	(1.2)	(1.3)
Trade payables and other current liabilities	(3.2)	(2.9)
Net assets	28.1	28.4

The movement in the carrying amount of the share in MAGNIFIN in the RHI Magnesita's Consolidated Financial Statements is shown below:

in € million	2019	2018
Proportional share of net assets at beginning of year	14.3	15.7
Share of profit	10.5	9.4
Share of other comprehensive income (remeasurement losses)	(0.1)	0.0
Dividends received	(10.5)	(10.8)
Other changes in value	(0.1)	0.0
Proportional share of net assets at year-end	14.1	14.3
Goodwill	4.9	4.9
Carrying amount of investment at year-end	19.0	19.2

In the course of the acquisition of Magnesita in 2017 the Group acquired interests in an immaterial joint venture with a carrying amount of €0.5 million as of 31 December 2019 (31.12.2018: €0.4 million). The Group's share of the profit after income tax, other comprehensive income and total comprehensive income in 2019 amounts to less than €0.1 million (2018: €0.3 million).

Associates

As part of the acquisition of Magnesita in 2017 the Group acquired two immaterial associated companies with a carrying amount of €0.0 million as of 31 December 2019 (31.12.2018: €2.2 million). The Group's share of the profit after income tax and total comprehensive income for 2019 amounts to €0.7 million. In 2018 the Group's share of the profit after income tax amounted to €0.3 million, total comprehensive income including other comprehensive income of €0.1 million amounted to €0.4 million.

In 2019 the Group has decided to restructure its Sinterdolime sourcing options in Europe and increase its vertical integration. As a result, it will exit from the equity accounted investment in Sinterco in 2021. In the course of the Magnesita purchase price allocation the fair value of the investment was determined as zero due to its economic performance. It is RHI Magnesita's best estimate that no additional cash contributions will be needed to cover the closing cost based on the current operations and determined exit plan. However, the current shareholders' loan to Sinterco is fully written off, which results in a €9.6 million impairment in 2019, shown in result of joint ventures and associates.

The other immaterial associated company Krosaki Magnesita Refractories is in liquidation as of 31 December 2019.

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15. Other non-current financial assets

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

in € million	31.12.2019	31.12.2018
Interests in subsidiaries not consolidated	0.7	0.7
Marketable securities and shares	13.8	15.0
Interest rate swaps	0.0	0.6
Other non-current financial receivables	0.9	1.7
Other non-current financial assets	15.4	18.0

Accumulated impairments on investments, securities and shares amounted to €3.5 million (31.12.2018: €4.3 million).

16. Other non-current assets

Other non-current assets include the following items:

in € million	31.12.2019	31.12.2018
Tax receivables	27.4	20.7
Prepaid stripping costs	6.9	6.8
Judicial deposits	4.5	3.7
Plan assets from overfunded pension plans	0.2	2.1
Prepaid expenses	0.5	1.0
Other non-current assets	39.5	34.3

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

Tax receivables relate to input tax credits, which are expected to be utilised in the medium term.

17. Deferred taxes

Deferred taxes are related to the following significant balance sheet items and loss carryforwards:

	31.12.2019		2019	31.12.2018		2018
in € million	Deferred tax assets	Deferred tax liabilities	(Expense)/Income	Deferred tax assets	Deferred tax liabilities	(Expense)/Income
Property, plant and equipment, intangible assets	26.5	136.4	30.2	20.1	159.7	25.1
Inventories	27.8	3.5	(6.0)	33.3	5.6	9.8
Trade receivables, other assets	21.0	11.7	8.5	7.7	7.1	24.8
Pensions and other personnel provisions	78.7	0.0	(1.9)	69.6	(0.2)	(2.3)
Other provisions	25.2	5.5	(4.8)	26.1	1.6	0.1
Trade payables, other liabilities	24.2	5.2	3.0	18.0	4.4	(10.6)
Tax loss carried forward	86.8	0.0	(7.1)	96.1	-	(29.9)
Offsetting	(108.3)	(108.3)	-	(99.8)	(99.8)	-
Deferred taxes	181.9	54.0	21.9	171.1	78.4	17.0

As of 31 December 2019, subsidiaries which generated tax losses in the past year or the previous year recognised net deferred tax assets on temporary differences and on tax loss carryforwards of €61.5 million (31.12.2018: €47.8 million). Deferred tax assets have been recognised because the companies concerned are expected to generate taxable income in the future.

Tax loss carryforwards totalled €494.5 million in the RHI Magnesita Group as of 31 December 2019 (31.12.2018: €467.7 million). A significant part of the tax loss carryforwards originated in Brazil and Austria where their deduction can be carried forward indefinitely. Furthermore, there are substantial tax loss carryforwards in China expiring within the next five years. The annual compensation of tax loss carryforwards in Austria is limited to 75% and in Brazil to 30% of the respective taxable profits. Deferred taxes on tax losses of €212.7 million (31.12.2018: €155.1 million) were not recognised. Of these losses, €0.1 million will expire in 2020, €0.4 million in 2022, €25.4 million in 2023, €7.8 million in 2024, €1.0 million in 2027 and €1.8 million in 2028 (31.12.2018: €5.8 million in 2021), while the remainder will be carried forward indefinitely.

In addition, no deferred tax assets were recognised for temporary differences totalling €1.4 million (31.12.2018: €5.1 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 €965.0 million (31.12.2018: €1,085.7 million) and deductible temporary differences of €545.0 million (31.12.2018: €501.1 million) were not recognised on shares in subsidiaries because the corresponding distributions of profit or the sale of the investments are controlled by the Group and are not expected in the foreseeable future.

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

in € million	31.12.2019			31.12.2018		
	Current	Non-current	Total	Current	Non-current	Total
Deferred tax assets	140.6	41.3	181.9	78.0	93.1	171.1
Deferred tax liabilities	(9)	(45.0)	(54.0)	2.9	(81.3)	(78.4)

18. Inventories

Inventories as presented in the Consolidated Statement of Financial Position consist of the following items:

in € million	31.12.2019	31.12.2018
Raw materials and supplies	134.5	176.8
Work in progress	123.9	140.8
Finished products and goods	334.0	391.9
Prepayments made	10.3	8.3
Inventories	602.7	717.8

Inventories include €2.8 million (31.12.2018: €2.3 million) carried at net realisable value. Net impairment losses amount to €8.0 million (2018: €-2.6 million).

There are no restrictions on the disposal of inventories.

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continued

19. Trade and other current receivables

Trade and other current receivables as presented in the Statement of Financial Position are classified as follows:

in € million	31.12.2019	31.12.2018
Trade receivables	317.5	349.9
Contract assets	1.9	1.9
Other taxes receivable	84.9	87.6
Receivables from joint ventures and associates	2.1	11.3
Prepaid expenses	2.3	3.0
Receivables from disposal of investments	0.0	2.6
Receivables from property transactions	2.7	2.2
Emission rights	1.7	1.7
Receivables from employees	3.4	1.7
Receivables from non-consolidated subsidiaries	0.2	0.3
Other current receivables	16.0	19.0
Trade and other current receivables	432.7	481.2
thereof financial assets	324.2	367.2
thereof non-financial assets	108.5	114.0

RHI Magnesita entered into factoring agreements and sold trade receivables to financial institutions. The balance sold totalled € 223.0 million as of 31 December 2019 (31.12.2018: € 229.9 million). The trade receivables have been derecognised as substantially all risks and rewards as well as control have been transferred. Payments received from customers in the period between the last sale of receivables and the reporting date are recognised in current borrowings.

Other taxes receivable include VAT credits and receivables from energy tax refunds, research, education and apprentice subsidies.

In 2018 trade receivables with a total nominal value of €34.0 million were assigned as security against financial liabilities. These financial liabilities have been fully repaid in 2019.

20. Income tax receivables

Income tax receivables amounting to €17.3 million (31.12.2018: €18.4 million) are mainly related to tax prepayments and deductible withholding taxes.

21. Other current financial assets

This item of the Consolidated Statement of Financial Position consists of the following components:

in € million	31.12.2019	31.12.2018
Derivatives in open orders	0.1	1.0
Marketable securities	0.0	36.3
Forward exchange contracts	0.0	1.1
Other current financial receivables	0.0	0.2
Other current financial assets	0.1	38.6

Accumulated impairments on other current financial receivables amounted to €0.6 million (31.12.2018: €1.1 million).

22. Cash and cash equivalents

This item of the Consolidated Statement of Financial Position consists of the following components:

in € million	31.12.2019	31.12.2018
Cash at banks	391.2	426.7
Money market funds	74.7	61.9
Cheques	1.2	2.5
Cash on hand	0.1	0.1
Cash and cash equivalents	467.2	491.2

Cash and cash equivalents include restricted cash totalling €23.3 million at 31 December 2019 (31.12.2018: €42.5 million). Restricted cash is mainly related to cash and cash equivalents at subsidiaries (mainly in Brazil, India and China) to which the company only has limited access due to foreign exchange and capital transfer controls. €13.0 million (31.12.2018: €23.8 million) are accounted for by subsidiaries with non-controlling interests.

23. Share capital

In exchange for the cancellation of the RHI AG shares as a result of the merger in the year 2017, in which RHI AG merged with and into RHI Magnesita N.V., the shareholders of RHI AG received one newly issued ordinary share of RHI Magnesita N.V. for each RHI AG share. As part of the purchase price for the acquisition of control of Magnesita, RHI Magnesita N.V. issued 5,000,000 new ordinary shares to the sellers of Magnesita shares as at 26 October 2017. Following the merger and the acquisition of control and also at year-end 2017, RHI Magnesita N.V.'s issued and fully paid-in share capital consisted of 44,819,039 ordinary shares at €1.0 each share.

In the course of the first close of the Integrated Tender Offer (ITO) in 2018 and the acquisition of additional 35.2% of shares in Magnesita, RHI Magnesita N.V. issued 3,518,008 new ordinary shares. Hence, share capital consisted of 48,337,047 ordinary shares at €1.0 each share as of 31 December 2018.

In the course of the finalisation of the ITO in 2019, the Group acquired the remaining outstanding Magnesita shares during the first four months of 2019 and has issued a total of 1,140,658 new ordinary shares. As at 10 April 2019, RHI Magnesita's issued share capital consisted of 49,477,705 shares with voting rights. Additional explanation is provided under Note (4).

The authorised share capital of RHI Magnesita N.V. amounts to €100,000,000 divided into 100,000,000 ordinary shares, of which 49,077,705 ordinary shares are issued and outstanding, taking into consideration the treasury shares amounting to 400,000. All outstanding RHI Magnesita shares grant the same rights. The shareholders are entitled to dividends and have one voting right per share at the Annual General Meeting. There are no RHI Magnesita shares with special control rights.

24. Group reserves

Treasury shares

During August and September 2019 RHI Magnesita N.V. purchased a total of 400,000 of its ordinary shares of one euro nominal value each pursuant to its £20 million share repurchase programme to satisfy awards made under employee performance share plans. Following the purchase of these shares the company holds 400,000 shares in treasury equalling €18.8 million.

Additional paid-in capital

At 31 December 2019 as well as at 31 December 2018, additional paid-in capital comprised premiums on the issue of shares less issue costs by RHI Magnesita N.V.

Mandatory reserve

The articles of association stipulate a mandatory reserve of €288,699,230.59 which was created in connection with the merger. No distributions, allocations or additions may be made and no losses of the company may be allocated to the mandatory reserve.

Retained earnings

Retained earnings includes the result of the financial year and results that were earned by consolidated companies during prior periods, but not distributed.

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Accumulated other comprehensive income

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.

Defined benefit plans include 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, unrealised currency translation differences from monetary items which are part of a net investment in a foreign operation, net of related income taxes, as well as the effective portion of foreign exchange gains or losses when a non-financial instrument is designated as the hedging instrument in net investment hedge in a foreign operation.

25. Non-controlling interests

Non-controlling interests in Magnesita

After completion of the Integrated Tender Offer (ITO) as at 10 April 2019 the Group holds 100% of the Magnesita shares. Detailed information of this transaction and the consequences of the change of the ownership interest in Magnesita that do not result in a change of control are provided under Note (4). Magnesita is a global group dedicated to the production and sale of an extensive line of refractory materials and industrial minerals and distinguishes itself through its vertically integrated operations.

The carrying amount of the non-controlling interests at time of completion of the ITO as at 10 April 2019 is based on the net assets of Magnesita and is determined as follows:

in € million	10.04.2019	31.12.2018
Non-current assets	976.3	969.7
Current assets	1,556.6	561.0
Non-current liabilities	(356.0)	(400.6)
Current liabilities	(1,671.0)	(676.0)
Net assets before intragroup eliminations	505.9	454.1
Intragroup eliminations	(6.2)	(3.9)
Net assets	499.7	450.2
Percentage of non-controlling interests	14.8%	14.8%
Carrying amount of non-controlling interests	74.0	66.7

The aggregate Statement of Profit or Loss and Statement of Comprehensive Income are shown below:

in € million	1-3/2019	2018
Revenue	286.5	1,067.5
Operating expenses, net finance costs and income tax	(241.4)	(1,011.4)
Profit after income tax before intragroup eliminations	45.1	56.1
Intragroup eliminations	0.7	(3.4)
Profit after income tax	45.8	52.7
thereof attributable to non-controlling interests of Magnesita	5.8	26.3

in € million	1-3/2019	2018
Profit after income tax	45.8	52.7
Other comprehensive income/(loss)	4.7	(24.4)
Total comprehensive income	50.5	28.3
thereof attributable to non-controlling interests of Magnesita	7.3	14.2

The following table shows the summarised Statement of Cash Flows:

in € million	1-3/2019	2018
Net cash flow from operating activities	(8.0)	164.9
Net cash flow from investing activities	(13.2)	(10.2)
Net cash flow from financing activities	(15.2)	(258.5)
Total cash flow	(36.4)	(103.8)

Non-controlling interests in Orient Refractories Ltd.

Non-controlling interests hold a share of 33.5% (31.12.2018: 33.5%) in the listed company Orient Refractories Ltd. (in the following "ORL"), based in New Delhi, India. ORL is allocated to the Steel segment.

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

in € million	31.12.2019	31.12.2018
Non-current assets	30.4	24.3
Current assets	52.1	56.0
Non-current liabilities	(3.7)	(6.3)
Current liabilities	(17.8)	(19.6)
Net assets before intragroup eliminations	61.0	54.4
Intragroup eliminations	(0.2)	(0.4)
Net assets	60.8	54.0
Percentage of non-controlling interests	33.5%	33.5%
Carrying amount of non-controlling interests	20.4	18.1

The aggregate Statement of Profit or Loss and Statement of Comprehensive Income are shown below:

in € million	2019	2018
Revenue	90.8	91.0
Operating expenses, net finance costs and income tax	(79.1)	(81.6)
Profit after income tax before intragroup eliminations	11.7	9.4
Intragroup eliminations	0.2	(0.2)
Profit after income tax	11.9	9.2
thereof attributable to non-controlling interests of ORL	4.0	2.7

in € million	2019	2018
Profit after income tax	11.9	9.2
Other comprehensive income/(loss)	0.0	(2.3)
Total comprehensive income	11.9	6.9
thereof attributable to non-controlling interests of ORL	4.0	2.2

Notes

continued

The following table shows the summarised Statement of Cash Flows of ORL:

in € million	2019	2018
Net cash flow from operating activities	11.9	9.5
Net cash flow from investing activities	(9.1)	(1.8)
Net cash flow from financing activities	(3.9)	(3.6)
Total cash flow	(1.1)	4.1

Net cash flow from financing activities includes dividend payments to non-controlling interests amounting to €1.3 million (2018: €1.1 million).

In addition, non-controlling interests hold a share of 33.5% in one immaterial subsidiary acquired in 2019. The carrying amount of the non-controlling interests amounts to €0.4 million as of 31 December 2019.

Accumulated other comprehensive income attributable to non-controlling interests

The development of accumulated other comprehensive income attributable to non-controlling interests is shown in the following table:

in € million	Cash flow hedges	Defined benefit plans	Currency translation
Accumulated other comprehensive income 31.12.2018	0.2	(2.1)	(7.9)
Unrealised results from currency translation	0.0	0.0	1.6
Reclassification to profit or loss	(0.1)	0.0	0.0
Transactions with non-controlling interests without change of control	(0.1)	2.1	4.5
Accumulated other comprehensive income 31.12.2019	0.0	0.0	(1.8)

26. Borrowings

Borrowings include all interest-bearing liabilities due to financial institutions and other lenders.

Borrowings have the following contractual remaining terms:

in € million	Total	Remaining term		
	31.12.2019	up to 1 year	2 to 5 years	over 5 years
Syndicated Term Loan	584.0	15.3	568.7	0.0
Bonded loans ("Schuldscheindarlehen")	400.0	0.0	100.0	300.0
Other credit lines and other loans	55.0	50.8	4.2	0.0
Accrued interest	4.1	4.1	0.0	0.0
Total liabilities to financial institutions	1,043.1	70.2	672.9	300.0
Other financial liabilities	15.6	2.3	13.1	0.2
Capitalised transaction costs	(3.7)	(1.0)	(2.7)	0.0
Borrowings	1,055.0	71.5	683.3	300.2

in € million	Total	Remaining term		
	31.12.2018	up to 1 year	2 to 5 years	over 5 years
Syndicated Term Loan	479.9	0.0	479.9	0.0
Bonded loans ("Schuldscheindarlehen")	216.0	0.0	152.0	64.0
Export credits and investment financing	171.9	34.4	137.5	0.0
Other credit lines and other loans	278.9	278.9	0.0	0.0
Accrued interest	6.9	6.9	0.0	0.0
Total liabilities to financial institutions	1,153.6	320.2	769.4	64.0
Other financial liabilities	16.6	2.3	13.7	0.6
Capitalised transaction costs	(3.8)	(0.9)	(2.9)	0.0
Borrowings	1,166.4	321.6	780.2	64.6

RHI Magnesita further improved its financial structure by signing a new €100.0 million 5-year term loan guaranteed by the Austrian export credit agency (OeKB) in June 2019. The interest rate is floating and is based on EURIBOR plus a margin between 0.4% and 1.3%, according to Group Leverage. RHI Magnesita borrows currently at the lowest margin of 0.4%. The final maturity of the loan is February 2024. Cash inflows from the new term loan in the amount of €100.0 million are shown in the Consolidated Statement of Cash Flows in proceeds from borrowings and loans.

In July and October 2019 RHI Magnesita took out a Schuldscheindarlehen ("SSD") bonded loan in one tranche of €280.0 million and another of €20.0 million respectively. Cash inflows from the new term loan in the amount of €300.0 million are shown in the Consolidated Statement of Cash Flows in proceeds borrowings and loans. With the proceeds from the new and lower interest bearing SSD bonded loans, the Group repaid €116.0 million of the extinguished legacy SSD bonded loans. Cash outflows from the redemption of the bonded loan in the amount of €116.0 million are included in repayments of borrowings and loans.

The utilised sum of USD 210.0 million at December 2018 from the USD 400.0 million RCF was fully repaid during the year of 2019 and at 31 December 2019 the RCF remained fully unutilised.

In the US, a legacy long-term loan of USD 37.5 million was early settled in January 2019. Likewise, in Brazil, remaining legacy loan of BRL 265.3 million was early settled in August 2019. Both cash outflows from the redemption of these loans are included in repayments of borrowings and loans.

As at 31.12.2018 €34.0 million of the liabilities to financial institutions were secured by receivables, which were fully repaid in 2019.

Net debt excluding lease liabilities/adjusted EBITDA is the main financial covenant of the loan agreements. Calculation of this covenant and net debt/adjusted EBITDA is shown under Note (57). Compliance with the covenants is measured on a semi-annual basis. Covenant ratio is limited at 3.5. Breach of covenants leads to an anticipated maturity of loans. During 2019 and 2018, the Group met all covenant requirements.

For liabilities of €1,008.1 million (31.12.2018: €1,052.6 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.

Considering interest swaps, 59% (31.12.2018: 55%) of the liabilities to financial institutions carry fixed interest and 41% (31.12.2018: 45%) carry variable interest.

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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	31.12.2019 Carrying amount in € million	Interest terms fixed until	Effective annual interest rate	Currency	31.12.2018 Carrying amount in € million
2020	EURIBOR + margin	EUR	389.9	2019	EURIBOR + margin	EUR	132.0
	LIBOR + margin	USD	15.9		LIBOR + margin	USD	221.7
	Interbank Deposit Certificate (CDI) + margin	CNY	14.0		Interbank Deposit Certificate (CDI) + margin	BRL	113.9
	Various – variable rate	Var.	0.2		Variable interest rate + margin	EUR	34.0
					3.77%	EUR	3.0
					Various – variable rate	Var.	16.5
				2020	1.28%	USD	32.8
					2.30%	EUR	12.4
2022	1.74%	EUR	62.0	2022	1.74%	EUR	62.0
	4.60%	EUR	3.0		4.60%	EUR	3.0
2023	0.28%	EUR	305.5	2023	1.56%	EUR	196.2
	3.09%	USD	178.5		1.12%	EUR	109.4
					3.94%	USD	174.8
2024	3.10%	EUR	35.0	2024	3.10%	EUR	35.0
2026	1.10%	EUR	27.0				
2024	1.52%	EUR	8.0				
			1,039.0				1,146.7

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

27. Other financial liabilities

Other financial liabilities include the negative fair value of derivative financial instruments as well as lease liabilities and fixed-term and puttable non-controlling interests in Group companies. This item of the Consolidated Statement of Financial Position consists of the following items:

in € million	31.12.2019			31.12.2018		
	Current	Non-current	Total	Current	Non-current	Total
Derivatives from supply contracts	5.9	18.0	23.9	0.9	20.0	20.9
Interest rate swaps	0.0	14.8	14.8	0.0	7.3	7.3
Derivatives in open orders	0.6	0.0	0.6	0.0	0.0	0.0
Derivative financial liabilities	6.5	32.8	39.3	0.9	27.3	28.2
Lease liabilities	13.8	48.1	61.9	0.0	0.0	0.0
Fixed-term or puttable non-controlling interests	11.6	24.2	35.8	14.1	22.2	36.3
Other financial liabilities	31.9	105.1	137.0	15.0	49.5	64.5

Additional explanation on derivative financial instruments is provided under Note (55).

28. Provisions for pensions

The net liability from pension obligations in the Consolidated Statement of Financial Position is as follows:

in € million	31.12.2019	31.12.2018
Present value of pension obligations	557.9	506.6
Fair value of plan assets	(248.0)	(223.9)
Funded status	309.9	282.7
Asset ceiling	18.0	19.5
Net liability from pension obligations	327.9	302.2
thereof assets from overfunded pension plans	0.2	2.1
thereof pensions	328.1	304.3

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

in € million	31.12.2019	31.12.2018
Active beneficiaries	115.3	101.4
Vested terminated beneficiaries	74.6	68.7
Retirees	368.0	336.5
Present value of pension obligations	557.9	506.6

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

in %	31.12.2019	31.12.2018
Interest rate	2.3%	3.3%
Future salary increase	2.6%	2.7%
Future pension increase	2.1%	2.2%

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. The calculation of the actuarial interest rate for the USD and GBP currency area is based on a yield curve for returns of high-quality corporate bonds denominated in USD and GBP 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 31 December, taking into account the expected future cash flows which were determined based on the current personal and commitment data.

The calculation in Austria was based on the AVÖ 2018-P demographic calculation principles for salaried employees from the Actuarial Association of Austria. In Germany, the Heubeck 2018 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 €122.0 million (31.12.2018: €125.8 million) of the present value of pension obligations and for €23.2 million (31.12.2018: €26.4 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 Magnesita 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 1 January 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.

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The pension plans of the German group companies account for €160.4 million (31.12.2018: €155.1 million) of the present value of pension obligations and for €0.7 million (31.12.2018: €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 12 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, except one contribution-based plan. There is no defined contribution model on a voluntary basis. Individual commitments have been made, with major part of them being retired beneficiaries.

The pension plan of the US group company Magnesita Refractories Company, York, USA, accounts for €87.5 million (31.12.2018: €74.2 million) of the present value of pension obligations and for €67.8 million (31.12.2018: €61.8 million) of the plan assets. The pension plan is a non-contributory defined benefit plan covering a portion of the employees of the company. The plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). Effective 21 June 1999, the company offered the participants the opportunity to elect to participate in a single enhanced defined contribution plan. Participants who make this election are no longer eligible for future accruals under this plan. All benefits accrued as of the date of transfer will be retained. Employees hired after 21 June 1999 and employees that did not meet the plan's eligibility requirements as of 21 June 1999 are not eligible for this plan. The pensions are predominantly paid in the form of annuities and are adjusted annually based on the US consumer price index. The company's contributions for the year ended 31 December 2019 met, or exceeded, the minimum funding requirements of ERISA.

The pension plan of the UK group company Magnesita Refractories Ltd., Dinnington, United Kingdom, accounts for €63.5 million (31.12.2018: €53.0 million) of the present value of pension obligations and holds €81.5 million (31.12.2018: €69.6 million) of assets, although only €63.5 million (31.12.2018: €53.0 million) of the plan assets are reflected on the balance sheet due to the application of IFRIC 14 (asset ceiling). The company sponsors a funded defined benefit pension plan for qualifying UK employees. The plan is administered by a separate board of trustees which is legally separate from the company. The trustees are composed of representatives of both the employer and employees, plus an independent professional trustee. The trustees are required by law to act in the interest of all relevant beneficiaries and are responsible for the investment policy with regard to the assets plus the day to day administration of the benefits. Under the plan, employees are entitled to annual pensions on retirement at age 65 of one-sixtieth of final pensionable salary for each year of service. Pensionable salary is defined as basic salary less the Lower Earnings Limit. Benefits are also payable on death and following other events such as withdrawing from active service. No other post-retirement benefits are provided to these employees.

The pension liabilities of the Brazilian group company Magnesita Refratários S.A. account for €72.5 million (31.12.2018: €62.6 million) of the present value of pension obligations and for €39.9 million (31.12.2018: €34.6 million) of the plan assets. The pension plan qualifies as an optional benefit plan. Employees are entitled to contribute to the plan, with the company contributing 1.5 times this value. 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 salary at the time of retirement. For the majority of commitments, the amount of the company pension obligation is limited to 75% of the final remuneration. At retirement the employee may choose to receive up to 25% of his/her amount at once or receive it on a pro-rata base with different options of monthly quotes.

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

in € million	2019	2018
Net liability from pension obligations at beginning of year	302.2	306.8
Currency translation	0.3	(1.9)
Pension cost	12.2	11.6
Remeasurement losses	36.9	12.2
Benefits paid	(18.2)	(17.3)
Employers' contributions to external funds	(4.9)	(9.0)
Reclassifications	(0.4)	(0.2)
Net liability from pension obligations at year-end	328.1	302.2

The present value of pension obligations developed as follows:

in € million	2019	2018
Present value of pension obligations at beginning of year	506.6	517.1
Currency translation	5.2	(3.0)
Current service cost	3.7	3.9
Past service cost	0.0	(0.5)
Interest cost	16.5	15.2
Remeasurement losses/(gains)		
from changes in demographic assumptions	(1.4)	7.8
from changes in financial assumptions	60.1	(5.8)
due to experience adjustments	0.4	2.7
Benefits paid	(33.1)	(31.1)
Employee contributions to external funds	0.5	0.5
Reclassifications	(0.6)	(0.2)
Present value of pension obligations at year-end	557.9	506.6

The movement in plan assets is shown in the table below:

in € million	2019	2018
Fair value of plan assets at beginning of year	223.9	228.6
Currency translation	5.8	(1.2)
Interest income	9.1	7.7
Administrative costs (paid from plan assets)	(0.5)	(0.3)
Income/(expense) on plan assets less interest income	19.5	(6.6)
Benefits paid	(14.9)	(13.8)
Employers' contributions to external funds	4.9	9.0
Employee contributions to external funds	0.5	0.5
Transfer	(0.3)	0.0
Fair value of plan assets at year-end	248.0	223.9

The changes in the asset ceiling are shown below:

in € million	2019	2018
Asset ceiling at beginning of year	19.5	18.3
Currency translation	1.0	(0.1)
Interest expense	0.6	0.4
(Gains)/losses from changes in asset ceiling less interest expense	(3.1)	0.9
Asset ceiling at year-end	18.0	19.5

At 31 December 2019 the weighted average duration of pension obligations amounts to 12 years (31.12.2018: 12 years).

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The following amounts were recorded in the Consolidated Statement of Profit or Loss:

in € million	2019	2018
Current service cost	3.7	3.9
Negative past service cost	0.0	(0.5)
Gains on settlement	(0.1)	0.0
Interest cost	16.7	15.2
Interest income	(9.2)	(7.7)
Interest expense from asset ceiling	0.6	0.4
Administrative costs (paid from plan assets)	0.5	0.3
Pension expense recognised in profit or loss	12.2	11.6

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

in € million	2019	2018
Accumulated remeasurement losses at beginning of year	131.4	119.3
Remeasurement losses on present value of pension obligations	59.2	4.6
(Income)/expense on plan assets less interest income	(19.5)	6.6
(Gains)/losses from changes in asset ceiling less interest expense	(3.1)	0.9
Accumulated remeasurement losses at year-end	168.0	131.4

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

in € million	31.12.2019			31.12.2018		
	Active market	No active market	Total	Active market	No active market	Total
Insurances	0.0	40.2	40.2	0.0	39.1	39.1
Equity instruments	4.1	31.0	35.1	4.7	18.5	23.2
Debt instruments	17.7	44.2	61.9	14.3	49.2	63.5
Cash and cash equivalents	38.1	4.0	42.1	32.3	4.1	36.4
Other assets	65.8	2.9	68.7	57.9	3.8	61.7
Fair value of plan assets	125.7	122.3	248.0	109.2	114.7	223.9

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 utilised by the RHI Magnesita Group.

RHI Magnesita 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 other 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 2020, RHI Magnesita expects employer contributions to external plan assets to amount to €3.7 million and direct payments to enti-

tled beneficiaries to €21.1 million. In the previous year, employer contributions of €4.8 million and direct pension payments of €17.1 million had been expected for the financial year 2019.

29. Other personnel provisions

Other personnel provisions consist of the following items:

in € million	31.12.2019	31.12.2018
Termination benefits	52.0	55.5
Service anniversary bonuses	21.0	19.4
Legacy share-based payment program	0.0	1.6
Semi-retirements	2.8	1.9
Lump-sum settlements	0.0	0.1
Other personnel provisions	75.8	78.5

Provisions for termination benefits

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

in %	31.12.2019	31.12.2018
Interest rate	1.3%	2.1%
Future salary increase	3.4%	3.9%

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	2019	2018
Provisions for termination benefits at beginning of year	55.5	58.1
Currency translation	0.1	0.0
Current service cost	1.5	1.6
Past service cost	(0.7)	0.0
Interest cost	1.1	0.9
Remeasurement losses/(gains)		
from changes in demographic assumptions	0.0	1.1
from changes in financial assumptions	2.1	(2.3)
due to experience adjustments	(1.8)	0.5
Benefits paid	(5.8)	(4.4)
Provisions for termination benefits at year-end	52.0	55.5

Payments for termination benefits are expected to amount to €5.8 million in the year 2020. In the previous year, the payments for termination benefits expected for the year 2019 amounted to €3.5 million.

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

in € million	2019	2018
Accumulated remeasurement losses at beginning of year	27.2	27.9
Remeasurement losses/(gains)	0.3	(0.7)
Accumulated remeasurement losses at year-end	27.5	27.2

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At 31 December 2019 the weighted average duration of termination benefit obligations amounts to 11 years (31.12.2018: 11 years).

Provisions for service anniversary bonuses

The measurement of provisions for service anniversary bonuses is based on an average weighted interest rate of 0.8% (31.12.2018: 1.7%) and takes into account salary increases of 3.4% (31.12.2018: 3.7%).

Provisions for semi-retirement

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

in € million	31.12.2019	31.12.2018
Present value of semi-retirement obligations	6.3	5.1
Fair value of plan assets	(3.5)	(3.2)
Provisions for semi-retirement obligations	2.8	1.9

External plan assets are ring-fenced from all creditors and exclusively serve to meet semi-retirement obligations.

30. Other non-current provisions

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

in € million	Onerous/ unfavourable contracts	Labour and civil contingencies	Demolition/disposal costs, environmental damages	Other	Total
31.12.2018	83.8	8.3	12.5	4.6	109.2
Currency translation	(0.8)	(0.2)	0.0	0.1	(0.9)
Reversals	0.0	0.0	(2.4)	0.0	(2.4)
Additions	0.4	2.1	0.0	0.0	2.5
Additions interest	8.4	0.0	0.6	0.0	9.0
Reclassifications	(14.3)	0.0	0.0	(4.6)	(18.9)
31.12.2019	77.5	10.2	10.7	0.1	98.5

In November 2017, RHI Magnesita sold a plant located in Oberhausen, Germany, in order to satisfy the conditions imposed by the European Commission in connection with their approval of the Acquisition of Control of Magnesita. As RHI Magnesita is obligated to provide raw materials at cost, the Group has recognised a provision for unfavourable contracts as part of the purchase price allocation to reflect the foregone profit margin. The non-current portion of this contract obligation amounts to €71.2 million as of 31.12.2019 (31.12.2018: €80.0 million). Furthermore, provisions for contract obligations amounting to €6.3 million (31.12.2018: €3.2 million) are due to contracts for logistics services and the procurement of raw materials.

The provision for labour and civil contingencies primarily comprises labour litigation provisions against RHI Magnesita totalling 337 cases amounting to €8.0 million (31.12.2018: €7.1 million).

The provision for demolition and disposal costs and environmental damages primarily includes provisions for the estimated costs of mining site restoration of several mines in Brazil amounting to €3.9 million (31.12.2018: €5.9 million) and various sites in the United States amounting to €6.3 million (31.12.2018: €6.1 million).

Provisions related to tax litigation procedures in Peru and Colombia included in the amount of €4.6 million in other provisions as of 31 December 2018 were reclassified to income tax liabilities as of 31 December 2019.

31. Other non-current liabilities

Other non-current liabilities consist of the following items:

in € million	31.12.2019	31.12.2018
Deferred income for subsidies received	5.8	6.2
Liabilities to employees	1.4	2.5
Contingent consideration for acquired subsidiaries	0.0	0.6
Miscellaneous non-current liabilities	0.1	1.0
Other non-current liabilities	7.3	10.3
thereof financial liabilities	0.0	0.6
thereof non-financial liabilities	7.3	9.7

32. Trade payables and other current liabilities

Trade payables and other current liabilities included in the Consolidated Statement of Financial Position consist of the following items:

in € million	31.12.2019	31.12.2018
Trade payables	354.1	502.5
Contract liabilities	45.5	64.8
Liabilities to employees	87.5	99.6
Taxes other than income tax	49.7	30.0
Dividend liabilities	25.0	0.5
Payables from property transactions	17.0	9.2
Payables from commissions	8.2	13.0
Customers with credit balances	6.6	7.3
Liabilities to joint ventures and associates	0.7	5.4
Liabilities to non-consolidated subsidiaries	0.7	1.0
Other current liabilities	19.0	23.6
Trade payables and other current liabilities	614.0	756.9
thereof financial liabilities	412.3	539.3
thereof non-financial liabilities	201.7	217.6

Trade payables include an amount of €67.4 million (31.12.2018: €85.5 million) for raw material purchases subject to supply chain finance arrangements.

Contract liabilities mainly consist of prepayments received on orders. Prepayments received on orders as of 31 December 2018 were recognised as revenue in the current reporting period.

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

Other current liabilities include €1.3 million (31.12.2018: €1.6 million) investment reimbursement obligation to the former subsidiary Dolomite Franchi S.p.A., and other accrued expenses.

33. Income tax liabilities

Income tax liabilities amounting to €35.4 million (31.12.2018: €32.2 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, comments and case law regarding the respective tax laws as well as past experiences, adequate liabilities have been recognised.

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34. Current provisions

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

in € million	Restructuring costs	Demolition/ disposal costs, environmental damages	Warranties	Onerous/ unfavourable contracts	Guarantees provided	Other	Total
31.12.2018	10.1	7.4	2.7	21.1	3.0	8.7	53.0
Currency translation	0.1	0.0	0.0	0.1	0.0	0.0	0.2
Utilised	(6.1)	(1.3)	(1.0)	(20.0)	0.0	(5.3)	(33.7)
Reversals	(0.6)	(1.1)	(1.9)	(5.8)	(3.1)	(0.5)	(13.0)
Additions	28.3	0.4	9.5	9.0	0.1	1.2	48.5
Reclassifications	0.0	0.0	0.0	13.4	0.0	1.4	14.8
31.12.2019	31.8	5.4	9.3	17.8	0.0	5.5	69.8

Provisions for restructuring costs amount to €31.8 million as of 31 December 2019 (31.12.2018: €10.1 million) and primarily consist of benefit obligations to employees due to termination of employment resulting from corporate reorganisation of RHI Magnesita. Out of the €31.8 million, €12.1 million relates to the plant closure in Hagen, Germany, and €4.0 million to the partial shut-down of the plant in Trieben, Austria.

The item demolition and disposal costs, environmental damages includes an amount of €2.5million (31.12.2018: €2.5 million) which refers to the former site in Aken, Germany. It is assumed that this provision will be used up within the next 12 months.

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

Provisions for contract obligations include the current portion of the Oberhausen contract obligation amounting to €10.4 million (31.12.2018: €11.5 million). The amortisation of this provision led to an income of €15.5 million in 2019 (31.12.2018: €10.0 million). Furthermore, provisions for other unfavourable contracts amounting to €3.5 million (31.12.2018: €6.7 million) and provisions for unfavourable contracts related to contracts for logistics services and the procurement of raw materials totalling €3.9 million (31.12.2018: €2.9 million) are included.

Provisions for guarantees provided included obligations from sureties and guarantees to banks and insurance companies as of 31 December 2018. As of 31 December 2019, these provisions are disclosed as contingent liabilities, as the outflow of resources is not estimated to be probable.

The item other provisions includes a provision for the share-based remuneration programme of the members of the former Management Board of RHI AG of €1.9 million (31.12.2018: €1.4 million).

In addition, provisions for legal proceedings amounting to €0.7 million (31.12.2018: €3.2 million) are included in the item other provisions. It is currently uncertain when precisely the cash outflow is due.

Furthermore, several provisions, which are individually immaterial and cannot be allocated to one of the above-mentioned categories, are included in other provisions. A large part of these costs is expected to be paid within 12 months.

NOTES TO THE CONSOLIDATED STATEMENT OF PROFIT OR LOSS

35. Revenue

Revenue is essentially generated by product deliveries and by performing management refractory services. The distribution of revenue by product group, division and country is given in the explanations to segment reporting under Note (51).

36. 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, amortisation 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.

37. Selling and marketing expenses

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

38. 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-capitalisable development costs.

Research and development expenses totalled €35.0 million (2018: €32.6 million), of which development costs amounting to €9.0 million (2018: €8.3 million) were capitalised. Income from research grants amounted to €4.4 million (2018: €3.8 million) in 2019. Amortisation and impairment of development costs amounting to €4.4 million (2018: €3.8 million) are recognised under cost of sales.

39. Restructuring and write-down expenses

In 2019 the Group initiated a plant rationalisation programme which led to €46.7 million of restructuring expenses and €65.4 million of asset write-downs of which €54.6 million are allocated to Segment Steel and €10.8 million are allocated to Segment Industrial.

This item includes costs for the plant closure in Hagen, Germany, amounting to €55.3 million (thereof termination of employment of €12.4 million and write-down of €42.9 million), the partial shut-down of the plant in Trieben, Austria, amounting to €13.7 million (thereof termination of employment of €5.1 million and write-down of €8.6 million) and other costs for termination of employment totalling €18.9 million. In 2018, restructuring costs primarily related to costs for termination of employment incurred in connection with the corporate reorganisation of RHI Magnesita amounting to €5.4 million.

In addition, restructuring costs include expenses for unused logistics services and procurement of raw materials in the Porsgrunn plant, Norway, amounting to €6.1 million (2018: €3.9 million).

Write-down expenses amounting to €13.9 million result from the impairment testing of CGU Norway according to IAS 36, of which €9.3 million are allocated to Segment Steel and €4.6 million are allocated to Segment Industrial. Further information is provided under Note (8).

40. Other income

The individual components of other income are:

in € million	2019	2018
Amortisation of Oberhausen provision	15.5	10.0
Income from the reversal of provisions	4.6	0.0
Income from the disposal of non-current assets	1.9	2.2
Result from derivatives from supply contracts	0.0	19.6
Income from restructuring	0.0	5.4
Miscellaneous income	12.9	6.7
Other income	34.9	43.9

In 2018, income from restructuring amounting to €5.4 million resulted from the reversal of acquisition-related provisions for redundancy programmes.

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41. Other expenses

Other expenses include:

in € million	2019	2018
Expenses for strategic projects	(9.0)	(13.5)
Losses from the disposal of non-current assets	(4.3)	(3.0)
Result from deconsolidation – recycling currency translation differences	(3.7)	0.0
Result from derivatives from supply contracts	(3.0)	0.0
Miscellaneous expenses	(11.3)	(6.1)
Other expenses	(31.3)	(22.6)

Expenses for strategic projects amounting to €9.0 million mainly include legal and consulting fees related to optimisation of supply chain, M&A and integration costs. In 2018, expenses for strategic projects amounted to €13.5 million and mainly included legal and consulting fees for the acquisition and integration of Magnesita as well as the related corporate reorganisation of RHI Magnesita.

42. Interest income

This item includes interest on cash at banks and similar income amounting to €8.7 million (2018: €8.8 million), interest income on financial receivables amounting to €0.2 million (2018: €0.2 million) and interest income on securities and shares amounting to €0.2 million (2018: €0.7 million). In 2018 €0.4 million were accounted for by impaired securities.

43. Foreign exchange effects and related derivatives

The net expense on foreign exchange effects and related derivatives consists of the following items:

in € million	2019	2018
Foreign exchange gains	83.3	98.6
Gains from related derivative financial instruments	14.6	4.5
Foreign exchange losses	(83.4)	(160.2)
Losses from related derivative financial instruments	(31.7)	(24.2)
Net expense on foreign exchange effects and related derivatives	(17.2)	(81.3)

Compared to the previous year the Group improved its financial structure. The absence of the Magnesita legacy debt combined with reduced volatility of Euro and Brazilian Real against the US Dollar resulted in lower net expense on foreign exchange effects. Realised losses from derivative financial instruments result from the dissolution of derivatives as of July 2019. These derivatives were fully restructured in 2019 and no effect is expected in the future out of this item.

In 2018 the net expense on foreign exchange effects and related derivatives resulted mainly from the devaluation of the Euro, Argentine Peso and Brazilian Real against the US Dollar, affecting both intercompany and third-party loans, accounts payable and accounts receivable.

44. Other net financial expenses

Other net financial expenses consist of the following items:

in € million	2019	2018
Interest income on plan assets	8.6	7.3
Interest expense on provisions for pensions	(16.7)	(15.2)
Interest expense on provisions for termination benefits	(1.2)	(0.9)
Interest expense on other personnel provisions	(0.3)	(0.3)
Net interest expense personnel provisions	(9.6)	(9.1)
Unwinding of discount of provisions and payables	(12.9)	(15.6)
Interest expense on non-controlling interests	(3.9)	(5.3)
Interest expense on lease liabilities	(1.2)	0.0
Gains from the disposal of securities and shares	0.9	0.7
Reversal of impairment losses on securities	0.8	0.0
Impairment losses on securities	0.0	(1.4)
Expenses from the valuation of put options	(0.5)	(1.0)
Other interest and similar expenses	(12.3)	(10.9)
Other net financial expenses	(38.7)	(42.6)

45. Income tax

Income tax consists of the following items:

in € million	2019	2018
Current tax expense	(72.7)	(75.9)
Deferred tax (expense)/income relating to temporary differences	29.8	46.7
tax loss carryforwards	(7.9)	(29.7)
	21.9	17.0
Income tax	(50.8)	(58.9)

The current tax expense of the year 2019 includes tax expenses for previous periods of €8.4 million (2018: €7.1 million) and income from income tax relating to prior periods of €1.7 million (2018: €0.5 million).

Income tax expenses for prior periods mainly include exit value expenses out of an ongoing transfer of functions between related parties amounting to €1.8 million as well as tax audit expenses in APAC and Italy amounting to € 1.2 million. In 2018 €3.8 million were related to an ongoing tax audit respectively tax loss forfeit in Germany.

In addition to the income taxes recognised in the Statement of Profit or Loss, tax income totalling €18.0 million (2018: €5.7 million), which is attributable to other comprehensive income, was also recognised in other comprehensive income.

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The reasons for the difference between the 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	2019	2018
Profit before income tax	199.6	246.0
Income tax expense calculated at 25% (2018: 25%)	49.9	61.5
Different foreign tax rates	(4.4)	1.8
Expenses not deductible for tax purposes, non-creditable taxes	17.2	10.1
Non-taxable income and tax benefits	(22.5)	(32.3)
Tax losses and temporary differences of the financial year not recognised	9.9	9.5
Utilisation of previously unrecognised loss carryforwards and temporary differences	(2.5)	(0.2)
Recognition of previously unrecognised loss carryforwards and temporary differences	(13.3)	(0.7)
Change in valuation allowance on deferred tax assets	0.6	1.2
Deferred tax expense due to tax rate changes	(0.6)	(1.8)
Deferred income tax relating to prior periods	8.5	2.4
Current income tax relating to prior periods	7.6	6.7
Other	0.5	0.7
Recognised tax expense	50.8	58.9
Effective tax rate (in %)	25.5%	23.9%

In 2019 expenses not deductible for tax purposes include voluntary leave payment, Chinese capacity compensation and a write down of a receivable which is not deductible for tax purposes in the total amount of €4.4 million. Non-taxable income includes benefits concerning the SUDENE tax regime amounting to €9.1 million. This tax regime is calculated on profits from activities covered by the incentive tax treatment for priority projects for the development of the SUDENE region in Brazil. Due to improved projections of taxable income deferred tax assets on tax loss carryforwards previously not recognised in the amount of €7.4 million in the Netherlands and €5.9 million in China were capitalised. Deferred tax assets relating to the tax losses of the current financial year of €3.8 million have not been recognised in the Netherlands and €2.3 million have not been recognised in Brazil.

Tax expense due to tax rate changes relates mainly to an Indian company, where the tax rate changed from 34,94% to 27,83%, leading to an additional expense of €1,5 million and to an American company where the tax rate changed from 23,66% to 24,2%, leading to an additional income of €0,7 million.

In 2018, deferred tax expense due to tax rates changes was primarily attributable to the reduction of the corporate income tax rate in Norway from 24% to 23% of 0.9 million and an increase in corporate income tax rate in Turkey from 20% to 22% of €0.4 million. Non-taxable income and tax benefits include the SUDENE tax regime amounting to €20.4 million.

46. Expense categories

The presentation of the Consolidated Statement of Profit or Loss is based on the function of expenses. The following tables show a classification by expense category for 2019 and the previous year:

in € million	Cost of sales	Selling and marketing expenses	General and administrative expenses	Other income/ expenses	Restructuring and write-down income/expenses	Total 2019
Changes in inventories, own work capitalised	60.7	0.0	(4.8)	0.0	0.0	55.9
Cost of materials	1,269.6	(0.7)	2.4	0.0	1.7	1,273.0
Personnel costs	412.2	76.9	115.2	0.0	25.3	629.6
Depreciation and amortisation charges	154.1	2.7	15.9	0.0	0.0	172.7
Write-down expenses	0.0	0.0	0.0	0.0	65.4	65.4
Other income	(23.2)	(2.0)	(4.3)	(1.8)	0.0	(31.3)
Other expenses	331.7	49.3	84.8	(1.8)	19.7	483.7
Total	2,205.1	126.2	209.2	(3.6)	112.1	2,649.0

Cost of materials includes expenses for raw materials and supplies and purchased goods of €1,049.6 million (2018: €1,321.3 million) as well as expenses for services received, especially energy, amounting to €223.5 million (2018: €232.5 million).

in € million	Cost of sales	Selling and marketing expenses	General and administrative expenses	Other income/ expenses	Restructuring and write-down income/expenses	Total 2018 ¹⁾
Changes in inventories, own work capitalised	(79.2)	0.0	(2.8)	0.0	0.0	(82.0)
Cost of materials	1,550.8	0.6	2.4	0.0	0.0	1,553.8
Personnel costs	409.6	72.8	106.2	0.0	5.6	594.2
Depreciation and amortisation charges	133.5	7.9	12.0	0.0	0.0	153.4
Other income	(27.5)	(0.2)	(4.2)	(9.9)	0.0	(41.8)
Other expenses	357.3	47.8	94.8	(11.4)	16.7	505.2
Total	2,344.5	128.9	208.4	(21.3)	22.3	2,682.8

1) To ensure comparability prior-year figures have been adjusted.

Amortisation charges of intangible assets are largely recognised in cost of sales. Other expenses mainly include freight costs, commissions, travel costs as well as consulting and other outside services.

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47. Personnel costs

Personnel costs consist of the following components:

in € million	2019	2018
Wages and salaries	489.6	474.0
Pensions		
Defined benefit plans	4.1	3.7
Defined contribution plans	5.9	5.2
Termination benefits		
Defined benefit plans	0.8	1.6
Defined contribution plans	1.4	1.5
Other expenses	15.9	2.9
Social security costs	79.3	73.7
Fringe benefits	32.7	31.6
Personnel expenses (without interest expenses)	629.7	594.2

Personnel costs do not include amounts resulting from the interest accrued on personnel provisions. They amount to €9.6 million (2018: €9.1 million) and are recorded in other net financial expenses.

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

in € million	2019	2018
Profit after income tax	148.8	187.1
Adjustments for		
income tax	50.8	58.9
depreciation	146.2	124.8
amortisation	26.4	28.6
write-down of property, plant and equipment and intangible assets	65.5	0.0
income from the reversal of investment subsidies	(0.6)	(0.5)
write-ups/ impairment losses on securities	8.7	0.3
losses from the disposal of property, plant and equipment	2.8	1.4
gains from the disposal of securities and shares	(0.9)	(0.7)
losses from the disposal of subsidiaries	3.7	0.0
net interest expense and derivatives	49.6	92.5
share of profit of joint ventures and associates	(11.1)	(10.1)
other non-cash changes	26.0	18.1
Changes in working capital		
inventories	110.9	(56.7)
trade receivables	30.3	21.9
contract assets	0.0	(1.9)
trade payables	(145.0)	48.8
contract liabilities	(19.0)	36.5
Changes in other assets and liabilities		
other receivables and assets	(4.9)	(29.5)
provisions	(8.0)	(59.4)
other liabilities	(9.8)	2.1
Cash generated from operations	470.4	462.2

Other non-cash expenses and income include mainly the net interest expenses for defined benefit pension plans amounting to €9.6 million (2018: €9.1 million), net remeasurement losses of monetary foreign currency positions and derivative financial instruments of €19.8 million (2018: €14.5 million).

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49. Net cash flow from financing activities

The reconciliation of movements of financial liabilities and assets to cash flows arising from financing activities for the current and the prior year is shown in the tables below:

in € million	31.12.2018	Cash changes		Non-cash changes			31.12.2019
			Changes in foreign exchange rates	Initial recognition IFRS 16	Interest expense and other changes	Additions and modifications of leases (IFRS 16)	
Liabilities to financial institutions	1,153.6	(161.8)	7.3	0.0	44.0	0.0	1,043.1
Lease liabilities	0.0	(15.5)	0.4	62.0	1.2	13.8	61.9
Liabilities to fixed-term or puttable non-controlling interests	36.3	(5.3)	0.3	0.0	4.5	0.0	35.8
Other financial liabilities and capitalised transaction costs	12.8	(2.1)	0.1	0.0	1.1	0.0	11.9
Trade payables	1.8	(1.8)	0.0	0.0	0.0	0.0	0.0
Changes of financial liabilities and assets arising from financing activities	1,204.5	(186.5)	8.1	62.0	50.8	13.8	1,152.7

in € million	31.12.2017	Cash changes		Non-cash changes		31.12.2018
			Changes in foreign exchange rates	Interest expense and other changes	Reclassification	
Liabilities to financial institutions	953.0	164.8	(12.0)	60.3	(12.5)	1,153.6
Perpetual bond	215.3	(215.0)	1.3	(1.6)	0.0	0.0
Senior notes	55.6	(54.6)	0.6	(1.6)	0.0	0.0
Liabilities to fixed-term or puttable non-controlling interests	32.0	(1.8)	(0.4)	6.5	0.0	36.3
Other financial liabilities and capitalised transaction costs	1.7	(0.5)	(0.3)	(0.6)	12.5	12.8
Prepaid transaction costs related to financial liabilities	(2.5)	0.0	0.0	2.5	0.0	0.0
Trade payables	0.0	(4.5)	0.0	6.3	0.0	1.8
Changes of financial liabilities and assets arising from financing activities	1,255.1	(111.6)	(10.8)	71.8	0.0	1,204.5

The reconciliation of the cash impact of net financing in 2019 and 2018 is shown in the tables below:

in € million	Reconciliation to cash net finance cost			
	Profit or loss	financing cash movements	other cash and non-cash movements	Cash impact of net financing costs
Interest income	9.1	0.0	0.8	8.3
Interest expenses on borrowings	(28.4)	(5.7)	(4.2)	(29.9)
Net expense on foreign exchange effects and related derivatives	(17.2)	0.0	(2.8)	(14.4)
Other net financial expenses	(38.7)	(5.8)	(24.6)	(19.9)
Net finance costs	(75.2)			(55.9)

in € million	Reconciliation to cash net finance cost			
	Profit or loss	financing cash movements	other cash and non-cash movements	Cash impact of net financing costs
Interest income	9.7	0.0	1.5	8.2
Interest expenses on borrowings	(48.5)	(12.8)	(6.9)	(54.4)
Net expense on foreign exchange effects and related derivatives	(81.3)	0.0	(61.2)	(20.1)
Other net financial expenses	(42.6)	(5.2)	(31.1)	(16.7)
Net finance costs	(162.7)			(83.0)

Non-cash movements in other net financial expenses are mainly related to net interest expenses on personnel provisions as well as to expenses from the discount on provisions.

50. Total interest paid and interest received

Total interest paid amounts to €50.5 million in the reporting period (2018: €72.4 million), of which €0.4 million (2018: €0.3 million) is included in cash flow from operating activities, €0.3 million (2018: €1.0 million) in cash flow from investing activities and €49.8 million (2018: €71.1 million) in cash flow from financing activities.

Total interest received amounts to €8.3 million for the financial year 2019 (2018: €8.5 million), of which €0.0 million (2018: €0.2 million) are included in cash flow from operating activities and €8.3 million (2018: €8.3 million) in cash flow from investing activities.

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OTHER DISCLOSURES

51. Segment reporting

Segment reporting by operating company division

The following tables show the financial information for the operating segments for the year 2019 and the previous year:

in € million	Steel	Industrial	Group 2019
Revenue	2,018.0	904.3	2,922.3
Gross profit	466.8	250.4	717.2
EBIT			273.3
Net finance costs			(75.2)
Share of profit of joint ventures and associates			1.5
Profit before income tax			199.6
Depreciation and amortisation charges	(109.1)	(63.5)	(172.6)
Segment assets 31.12.2019	1,545.9	919.5	2,465.4
Investments in joint ventures and associates 31.12.2019			19.5
Reconciliation to total assets			834.7
			3,319.6
Investments in property, plant and equipment and intangible assets (according to non-current assets statement)	103.2	77.8	181.0

in € million	Steel	Industrial	Group 2018 ¹⁾
Revenue	2,213.0	868.4	3,081.4
Gross profit	526.4	210.5	736.9
EBIT			398.6
Net finance costs			(162.7)
Share of profit of joint ventures and associates			10.1
Profit before income tax			246.0
Depreciation and amortisation charges	(97.5)	(55.9)	(153.4)
Segment assets 31.12.2018	1,669.9	944.4	2,614.3
Investments in joint ventures and associates 31.12.2018			21.8
Reconciliation to total assets			902.9
			3,539.0
Investments in property, plant and equipment and intangible assets (according to non-current assets statement)	67.7	59.3	127.0

1) Adjusted to reflect the changes in presentation.

No single customer contributed 10% or more to consolidated revenue in 2019. Companies which are known to be part of a group are treated as one customer. In 2018, revenue amounting to €317.5 million was realised with one customer, which was included in the Steel segment.

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

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

in € million	Steel	Industrial	Group 2019
Shaped products	963.0	613.7	1,576.7
Unshaped products	323.4	187.6	511.0
Management refractory services	628.8	0.0	628.8
Other	102.8	103.0	205.8
Revenue	2,018.0	904.3	2,922.3

In 2018, revenue was classified by product group as follows:

in € million	Steel	Industrial	Group 2018 ¹⁾
Shaped products	1,114.9	575.9	1,690.8
Unshaped products	340.9	192.1	533.0
Management refractory services	616.0	0.0	616.0
Other	141.2	100.4	241.6
Revenue	2,213.0	868.4	3,081.4

1) Adjusted to reflect the changes in presentation.

Revenue from shaped and unshaped products is transferred to the customers at a point in time, whereas revenue from management refractory services is transferred over time. Other revenue amounting to €96.9 million (2018: €100.9 million) is transferred over time and an amount of €108.9 million (2018: €140.7 million) is transferred at a point of time.

Segment reporting by country

Revenue in 2019 and in the previous year is classified by customer sites as follows:

in € million	Steel	Industrial	Group
Netherlands	11.4	5.0	16.4
All other countries			
USA	359.7	55.4	415.1
Brazil	273.3	58.8	332.1
India	206.3	45.5	251.8
PR China	47.6	136.1	183.7
Germany	96.8	74.1	170.9
Mexico	108.1	47.4	155.5
Italy	88.5	26.3	114.8
Canada	47.9	55.2	103.1
Russia	68.8	9.6	78.4
Other countries, each below €52.7 million	709.6	390.9	1,100.5
Revenue	2,018.0	904.3	2,922.3

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continued

in € million	Steel	Industrial	Group
Netherlands	13.9	11.9	25.8
All other countries			
USA	353.7	54.2	407.9
Brazil	277.1	56.1	333.2
India	202.3	43.0	245.3
Germany	116.6	66.8	183.4
PR China	44.0	121.7	165.7
Mexico	127.8	33.2	161.0
Italy	104.6	27.0	131.6
Canada	46.4	45.8	92.2
Russia	73.7	13.2	86.9
Other countries, each below €62.9 million	852.9	395.5	1,248.4
Revenue	2,213.0	868.4	3,081.4

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

in € million	31.12.2019	31.12.2018
Brazil	514.0	520.7
USA	233.2	233.1
Austria	228.8	220.6
Germany	154.0	198.6
PR China	181.9	160.1
India	64.7	58.0
Mexico	38.9	34.5
France	27.9	31.8
Turkey	29.4	30.6
Other countries, each below €22.1 million (31.12.2018: €18.6 million)	70.5	58.6
Goodwill, intangible assets and property, plant and equipment	1,543.3	1,546.6

52. 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 Magnesita N.V. by the weighted average number of shares outstanding during the financial year.

	2019	2018
Profit after income tax attributable to the owners of the parent (in € million)	139.0	158.1
Weighted average number of shares for basic EPS	49,220,010	44,963,615
Effects of dilution from share options	273,969	94,105
Weighted average number of shares for dilutive EPS	49,493,979	45,057,720
Earnings per share basic (in €)	2.82	3.52
Earnings per share diluted (in €)	2.81	3.52

The weighted average number of shares for basic and dilutive EPS considers the weighted average effect of the newly issued ordinary shares as well the effect of changes in treasury shares during the reporting period. As of 31 December 2019, there are 273,969 diluting options.

53. Dividend payments and proposed dividend

The Annual General Meeting on 6 June 2019 approved the pay-out of a dividend of €1.50 per share for 2018. Consequently, a dividend totalling €74.2 million was paid out to the shareholders of RHI Magnesita N.V. at the beginning of July 2019.

On 23 July 2019 the Board of Directors of RHI Magnesita N.V. approved the 2019 interim dividend of €0.50 per share amounting to € 24.5 million. The 2019 interim dividend was paid on 9 January 2020.

For 2019, the Board of Directors has recommended not to pay a final dividend for 2019, subject to shareholder approval at the Annual General Meeting, on 5 June 2020 to shareholders on the register at 2020. This decision will be reviewed later in the year once the outlook becomes clearer.

Dividend payments to the shareholders of RHI Magnesita N.V. have no income tax consequences for RHI Magnesita N.V.

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54. 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.

	31.12.2019				31.12.2018	
in € million	Measurement category IFRS 9 ¹⁾	Level	Carrying amount	Fair value	Carrying amount	Fair value
Other non-current financial assets						
Interests in subsidiaries not consolidated	FVPL	3	0.7	0.7	0.7	0.7
Marketable securities	FVPL	1	13.3	13.3	14.5	14.5
Shares	FVPL	3	0.5	0.5	0.5	0.5
Interest derivatives designated as cash flow hedges	-	2	0.0	0.0	0.6	0.6
Other non-current financial receivables	AC	-	0.9	-	1.7	-
Trade and other current receivables	AC	-	324.2	-	367.2	-
Other current financial assets						
Marketable securities	FVPL	1	0.0	0.0	35.2	35.2
Shares	FVPL	1	0.0	0.0	1.1	1.1
Derivatives	FVPL	2	0.1	0.1	2.1	2.1
Other current financial receivables	AC	-	0.0	-	0.2	-
Cash and cash equivalents	AC	-	467.2	-	491.2	-
Financial assets			806.9		915.0	
Non-current and current borrowings						
Liabilities to financial institutions	AC	2	1,043.1	1,056.6	1,153.6	1,165.6
Other financial liabilities and capitalised transaction costs	AC	2	11.9	-	12.8	-
Non-current and current other financial liabilities						
Lease liabilities	AC	2	61.9	-	-	-
Derivatives	FVPL	2	24.5	24.5	20.9	20.9
Interest derivatives designated as cash flow hedges	-	2	14.8	14.8	7.3	7.3
Liabilities to fixed-term or puttable non-controlling interests	AC	2	35.8	-	36.3	-
Other non-current liabilities						
Contingent consideration for acquired subsidiaries	FVPL	3	0.0	0.0	0.6	0.6
Trade payables and other current liabilities	AC	-	412.3	-	539.3	-
Financial liabilities			1,604.3		1,770.8	
Aggregated according to measurement category						
Financial assets measured at FVPL			14.6		54.1	
Financial assets measured at amortised cost			792.3		860.3	
Financial liabilities measured at amortised cost			1,565.0		1,742.0	
Financial liabilities measured at FVPL			24.5		21.5	

1) FVPL: Financial assets/financial liabilities measured at fair value through profit or loss.
AC: Financial assets/financial liabilities measured at amortised cost.

In the RHI Magnesita Group marketable securities, derivative financial instruments, shares, and interests in subsidiaries not consolidated 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 favourable market if there is

no main market. RHI Magnesita 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 Magnesita 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 securities, shares, and interests in subsidiaries not consolidated is based on price quotations at the reporting date (Level 1), where such quotations exist. In other cases a valuation model (Level 3) would be used for such instruments with the exception that such instruments are immaterial to the group, in which case amortised cost serves as an approximation of fair value.

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 other derivative contracts 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 was classified as a derivative financial instrument since 2015. These derivatives are measured using quoted forward rates that are currently observable (Level 2).

The fair value of the contingent consideration liability amounting to €0.0 million (31.12.2018: €0.6 million) recognised in 2017 due to the acquisition of Agellis is determined by discounting the estimated earn-out with the transaction's internal rate of return (Level 3).

RHI Magnesita takes into account reclassifications in the measurement hierarchy at the end of the reporting period in which the changes occur. Apart from the initial application of IFRS 9, there were no shifts between the different measurement levels in the two reporting periods.

Liabilities to financial institutions, other financial liabilities and capitalised transaction costs, lease liabilities and liabilities to fixed-term or puttable non-controlling interests are carried at amortised cost in the Consolidated Statement of Financial Position. The fair values of the liabilities to financial institutions are only shown in the notes and calculated at the present value of the discounted future cash flows using yield curves that are currently observable (Level 2).

The financial receivables approximately 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.

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Net results by measurement category in accordance with IFRS 9

The effect of financial instruments on the income and expenses recognised in 2019 and 2018 is shown in the following table, classified according to the measurement categories defined in IFRS 9:

in € million	2019	2018
Net (loss)/gain from financial assets and liabilities measured at fair value through profit or loss	(17.7)	1.4
Net loss from financial assets and liabilities measured at fair value through profit or loss designated on initial recognition	0.5	(1.2)
Net gain/(loss) from financial assets and liabilities measured at amortised cost	(39.7)	(123.5)

The net gain from financial assets and liabilities measured at fair value through profit or loss includes income from securities and shares, income from the disposal of securities and shares, impairment losses and income from reversals of impairment losses, unrealised results from the measurement of a long-term commodity futures contract, changes in the market value and realised results of forward exchange contracts and embedded derivatives in open orders in a currency other than the functional currency of RHI Magnesita, interest derivatives which do not meet the requirements of hedge accounting in accordance with IFRS 9 and interest income from securities.

The net gain or loss from financial assets and liabilities at fair value through profit or loss designated on initial recognition includes income related to the settlement and measurement of securities and personnel obligations.

The net loss from financial assets and liabilities measured at amortised cost 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 loss is mainly related to financial liabilities measured at amortised cost.

Net finance costs include interest income amounting to €9.1 million (2018: €9.5 million) and interest expenses of €49.9 million (2018: €69.5 million), which result from financial assets and liabilities which are not carried at fair value through profit or loss.

55. Derivative financial instruments

Commodity forward

The RHI Magnesita Group signed a commodity forward contract for electricity for the fusion plant in Porsgrunn, Norway, in November 2011 which has been accounted for as a financial instrument in accordance with IFRS 9 since 31 December 2015 because the "own-use exemption" (exemption for own use in accordance with IFRS 9 no longer applies).

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 €23.9 million at 31 December 2019 (31.12.2018: €20.9 million). The corresponding present value of the cash flows for the agreed electricity supply totals €59.5 million at 31 December 2019 (31.12.2018: €71.3 million); the present value of the cash flow at market price amounts to €35.6 million (31.12.2018: €50.4 million).

Interest rate swaps

RHI Magnesita has concluded interest rate swaps to hedge the cash flow risk associated to financial liabilities carrying variable interest rates. Variable interest cash flows of financial liabilities 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. Ineffectiveness in the hedge relationship may arise due to credit risk, although this risk is assessed to be very low.

In the year 2018, RHI Magnesita concluded an interest rate swap with a nominal volume of €305.6 million maturing in 2023. The interest and compensation payments are due on a quarterly basis. Fixed interest rate amounts to roughly 0.28%, the variable interest rate is based on the EURIBOR. Furthermore, one other interest rate swap has been concluded in 2018, with a nominal volume of USD 200.0 million and a term until 2023. The interest and compensation payments are also due on a quarterly basis. Fixed interest rate amounts to roughly 3.1%, the variable interest rate is based on the USD LIBOR.

A hedging relationship with a nominal volume of USD 50.0 million (31.12.2018: USD 50.0 million) with an original maturity until 2020 was early settled in 2019. An income of €0.7 million recognised in other comprehensive income was reclassified to profit or loss and recognised within other net financial expenses.

In 2018, two interest rate swaps measured at fair value through profit or loss with an original maturity until 2019 and with a nominal value of €12.2 million were subject to early settlement in the reporting period. Total expense in 2018 of this transaction amounted to €0.3 million and was recognised within other net financial expenses.

The fair values of the interest rate swaps totalled €-14.8 million at the reporting date (31.12.2018: €-6.7 million) and are shown in other non-current financial liabilities (31.12.2018: €7.3 million) in the Consolidated Statement of Financial Position. At 31.12.2018 a fair value of € 0.6 million was shown in other non-current financial assets. For the reporting period 2019, €-7.4 million (2018: €6.8 million) have been recognised in other comprehensive income and an income amounting to €0.7 million (2018:€0.0) has been reclassified from other comprehensive to profit or loss and recognised within other net financial expenses. No ineffectiveness has been recognised in profit and loss.

Forward exchange contracts

As of 31 December 2019, there were no open forward exchange contracts.

The nominal value and fair value of forward exchange contracts as of 31 December 2018 are shown in the table below:

			31.12.2018	
Purchase	Sale		Nominal value in million	Fair value in € million
EUR	USD	USD	182.0	1.1
USD	INR	EUR	890.0	0.0
Forward exchange contracts				1.1

56. Financial risk management

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

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

Credit risks

The maximum credit risk from recognised financial assets amounts to €806.9 million (31.12.2018: €915.0 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 as business transactions are only carried out with prime financial institutions with a good credit rating. Individual counterpart exposures limits are assigned to each financial institution based on a matrix composed of the credit rating (S&P or Moody's) and balance sheet assets.

Receivables from customers are hedged as far as possible through credit insurance and collateral arranged through banks (guarantees, letters of credit) in order to mitigate credit and default risk. Credit and default risks are monitored continuously, and provisions are formed for risks that have occurred and are identifiable.

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	31.12.2019	31.12.2018
Segment Steel	206.8	250.3
Segment Industrial	110.7	99.6
Trade receivables	317.5	349.9
Credit insurance and bank guarantees	(140.8)	(139.8)
Net credit exposure	176.7	210.1

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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	31.12.2019	31.12.2018
US Dollar	75.9	75.4
Euro	10.1	11.6
Pound Sterling	5.2	5.8
Other currencies	3.5	7.0
Other functional currencies	222.8	250.1
Trade receivables	317.5	349.9

The movement in the valuation allowance in respect of trade and other receivables and contract assets during the year and the previous year was as follows.:

in € million	2019		2018	
	Individually assessed – credit impaired	Collectively assessed – not credit impaired	Individually assessed – credit impaired	Collectively assessed – not credit impaired
Accumulated valuation allowance at beginning of year	29.6	1.2	28.7	3.3
Currency translation	0.3	–	(1.1)	–
Addition	5.9	–	5.0	–
Use	(1.0)	–	(3.0)	–
Reversal	(2.5)	–	0.0	–
Net remeasurement of loss allowance	–	0.1	–	(2.1)
Accumulated valuation allowance at year-end	32.3	1.3	29.6	1.2

For trade receivables and contract assets, for which no objective evidence of impairment exists, lifetime expected credit losses have been calculated using a provision matrix as shown below:

in € million			Trade receivables – days past due				
31.12.2019	Not past due	less than 30 days	between 31 and 60 days	between 61 and 90 days	between 91 and 180 days	more than 180 days	Total
Expected credit loss rate in %	0.04 – 0.65%	0.08 – 1.50%	0.33 – 10.33%	0.90 – 19.71%	1.43 – 26.35%	3.02 – 46.81%	
Gross carrying amount	260.8	20.8	8.0	1.9	1.4	2.8	295.7
Life time expected credit loss	0.4	0.1	0.1	0.1	0.1	0.5	1.3

in € million		Trade receivables – days past due					
31.12.2018	Not past due	less than 30 days	between 31 and 60 days	between 61 and 90 days	between 91 and 180 days	more than 180 days	Total
Expected credit loss rate in %	0.05 – 0.45%	0.11 – 1.08%	0.50 – 7.04%	1.39 – 13.33%	2.27 – 17.63%	5.86 – 33.81%	
Gross carrying amount	294.0	34.0	7.6	3.2	2.8	4.0	345.6
Life time expected credit loss	0.4	0.1	0.1	0.1	0.2	0.3	1.2

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 Magnesita. The liquidity requirements resulting from budget and medium-term planning are secured by concluding appropriate financing agreements. As of 31 December 2019, the RHI Magnesita Group has a committed credit facility of USD 400.0 million, which is fully unutilised (31.12.2018: USD 190.0 million were unutilised). The USD 400.0 million committed RCF is a syndicated facility with multiple international banks and matures in 2023. The companies of the RHI Magnesita Group are integrated into a clearing process managed by Corporate Treasury and provided with financing limits in order to minimise 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	Remaining term				
	Carrying amount 31.12.2019	Cash outflows	up to 1 year	2 to 5 years	over 5 years
Liabilities to financial institutions					
fixed interest	135.0	147.4	2.7	108.5	36.2
variable interest	908.1	949.6	76.2	601.7	271.7
Other financial liabilities and capitalised transaction costs	11.9	13.4	2.0	11.2	0.2
Lease liabilities	61.9	79.5	16.2	37.7	25.6
Liabilities to fixed-term or puttable non-controlling interests	35.8	187.8	11.6	13.2	163.0
Trade payables and other current liabilities	412.3	412.3	412.3	0.0	0.0
Non-derivative financial liabilities	1,565.0	1,790.0	521.0	772.3	496.7

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in € million	Carrying amount 31.12.2018	Cash outflows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Liabilities to financial institutions					
fixed interest	116.1	127.3	2.7	88.5	36.1
variable interest	1,037.5	1,100.9	338.6	732.9	29.4
Other financial liabilities and capitalised transaction costs	12.8	15.2	2.2	12.3	0.7
Liabilities to fixed-term or puttable non-controlling interests	36.3	211.8	14.2	18.4	179.2
Contingent consideration for acquired subsidiaries	0.6	0.6	0.0	0.6	0.0
Trade payables and other current liabilities	539.3	539.3	539.3	0.0	0.0
Non-derivative financial liabilities	1,742.6	1,995.1	897.0	852.7	245.4

Derivative financial instruments

The remaining terms of derivative financial instruments based on expected undiscounted cash flow as of 31 December 2019 and 31 December 2018 are shown in the table below:

in € million	Carrying amount 31.12.2019	Cash flows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Derivatives in open orders	0.1	0.1	0.1	0.0	0.0
Liabilities from derivatives with net settlement					
Derivatives from supply contracts	23.9	24.6	6.0	18.6	0.0
Interest rate swaps	14.8	15.1	5.0	10.1	0.0
Derivatives in open orders	0.6	0.6	0.6	0.0	0.0

in € million	Carrying amount 31.12.2018	Cash flows	Remaining term		
			up to 1 year	2 to 5 years	over 5 years
Receivables from derivatives with net settlement					
Interest rate swaps	0.6	0.6	0.5	0.1	0.0
Derivatives in open orders	1.0	1.0	1.0	0.0	0.0
Forward exchange contracts	1.1	1.1	1.1	0.0	0.0
Liabilities from derivatives with net settlement					
Derivatives from supply contracts	20.9	22.2	1.0	21.2	0.0
Interest rate swaps	7.3	8.1	2.4	5.7	0.0

Foreign currency risks

Foreign currency risks arise 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 analysed with respect to hedging options. Usually 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 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 Consolidated 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 Magnesita Group result from operating activities, above all from intragroup financing transactions, unless the foreign exchange effects recognised 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 31 December 2019:

in € million	USD	EUR	ZAR	CHF	Other	Total
Financial assets	813.8	57.0	12.8	0.8	69.0	953.4
Financial liabilities, provisions	(646.9)	(165.7)	0.0	(11.2)	(34.9)	(858.7)
Net foreign currency position	166.9	(108.7)	12.8	(10.4)	34.1	94.7

The foreign currency positions as of 31 December 2018 are structured as follows:

in € million	USD	EUR	ZAR	CHF	Other	Total
Financial assets	651.5	104.1	15.8	1.4	77.7	850.5
Financial liabilities, provisions	(938.6)	(241.7)	0.0	(11.0)	(63.0)	(1,254.3)
Net foreign currency position	(287.1)	(137.6)	15.8	(9.6)	14.7	(403.8)

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 31 December 2019 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	(15.2)	(4.7)	18.6	5.7
Euro	9.9	15.5	(12.1)	(18.9)
South African Rand	(1.2)	(1.2)	1.4	1.4
Swiss Franc	0.9	0.9	(1.2)	(1.2)
Other currencies	(3.0)	(3.0)	3.8	3.9

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The hypothetical effect on profit or loss at 31 December 2018 can be summarised as follows:

in € million	Appreciation of 10%		Devaluation of 10%	
	Gain/(loss)	Equity	Gain/(loss)	Equity
US Dollar	27.0	27.0	(33.0)	(33.0)
Euro	12.4	12.4	(15.1)	(15.1)
South African Rand	(1.4)	(1.4)	1.7	1.7
Swiss Franc	0.9	0.9	(1.1)	(1.1)
Other currencies	(1.4)	(1.4)	1.6	1.6

Net investment hedge

Non-current borrowings as of 31 December 2019 include USD 200.0 million which have been designated as a hedge of the net investments in two subsidiaries in the USA as of 1 July 2019. This borrowing is used to hedge the Group's exposure to the USD foreign exchange risk on these investments. Gains or losses on the translation of this borrowing are reclassified to Other Comprehensive Income to offset any gains or losses on translation of the net investments in the subsidiaries.

There is an economic relationship between the hedged item and the hedging instrument as the net investment creates a translation risk that will match the foreign exchange risk on the USD borrowing. The Group has established a hedge ratio of 1:1 as the underlying risk of the hedging instrument is identical to the hedged risk component. Hedge ineffectiveness could arise when the amount of the investment in the foreign subsidiary becomes lower than the amount of the fixed rate borrowing. For the reporting period, there was no ineffectiveness to be recorded from net investments hedges.

The impact of the hedging instrument for the period 2019 is shown as follows:

in € million	Carrying amount	Statement of Financial Position	Change in fair value used for measuring ineffectiveness	Nominal amount
	178.5	Non-current borrowings	(2.9)	USD 200.0 million

The change in the carrying amount of the non-current borrowing as a result of the foreign currency movements since 1 July 2019 is recognised in Other Comprehensive Income within the currency translation differences.

The impact of the hedged item for the period 2019 is shown as follows:

in € million	Change in fair value used for measuring ineffectiveness	Nominal amount
	2.9	2.2

The hedging gain or loss recognised in the currency translation differences is also including the corresponding tax effect. The hedging gain or loss recognised before tax is equal to the change in the fair value used for measuring effectiveness.

Interest rate risks

The interest rate risk in the RHI Magnesita Group is primarily related to financial instruments carrying variable interest rates, which may lead to fluctuations in results and cash flows. At 31 December 2019, interest rate hedges amounting to a nominal value of €305.6 million (31.12.2018: €305.6 million) and a nominal value of USD 200.0 million (31.12.2018: USD 250.0 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 Magnesita Group measures fixed interest financial assets and financial liabilities at amortised 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 31 December 2019 had been 25 basis points higher or lower, equity would have been €3.1 million (31.12.2018: €3.8 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. If the market interest rate as of 31 December 2019 had been 25 basis points higher or lower, the interest result would have been €0.1 million (31.12.2018: €0.1 million) lower or higher.

Other market price risk

RHI Magnesita holds certificates in an investment fund amounting to €13.3 million (31.12.2018: €12.0 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 2015, an energy supply contract with a term until the year 2023 was classified as a derivative financial instrument and the fair value of the financial liability amounts to €23.9 million at 31 December 2019 (31.12.2018: €20.9 million). If the quoted forward prices at 31 December 2019 had been 20% higher or lower, EBIT would have been €7.1 million (31.12.2018: €10.1 million) higher or lower. In contrast, if the borrowing costs relevant for discounting had been 25 basis points higher or lower at the reporting date, EBIT would have been €0.1 million (31.12.2018: €0.2 million) higher or lower.

57. Capital management

The objectives of the capital management strategy of the RHI Magnesita Group are to continue as a going concern and to provide a capital base to finance growth and investments, to service debt, and to increase shareholders value, including the payment of dividends to shareholders.

The RHI Magnesita Group manages its capital structure through careful monitoring and assessment of the overall economic framework conditions, credit, interest rate and foreign exchange risks and the requirements and risks related to operations and strategic projects.

The capital structure key figures at the reporting date are shown below:

	31.12.2019	31.12.2018
Net debt (in € million)	649.7	638.9
Net gearing ratio (in %)	76.9%	72.2%
Net debt to adjusted EBITDA	1.17x	1.16x

Net debt, which reflects borrowings and lease liabilities net of cash and cash equivalents and marketable securities, is managed by Corporate Treasury. The main task of the Corporate Treasury department is to execute the capital management strategy as well as to secure liquidity to support business operations on a sustainable basis, to use banking and financial services efficiently and to limit financial risks while at the same time optimising earnings and costs.

The net gearing ratio is the ratio of net debt to total equity.

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Net debt excluding lease liabilities/adjusted EBITDA is the main financial covenant of loan agreements. The key performance indicator for net debt in the RHI Magnesita Group is the group leverage, which reflects the ratio of net debt to adjusted EBITDA, including lease liabilities. It is calculated as follows:

in € million	31.12.2019	31.12.2018
EBIT	273.3	398.6
Amortisation	26.4	28.6
Restructuring and write-down expenses	112.1	22.3
Other operating income and expenses	(3.6)	(21.3)
Adjusted EBITA	408.2	428.2
Depreciation	146.2	124.8
Adjusted EBITDA	554.4	553.0
Total debt	1,055.0	1,166.4
Lease liabilities	61.9	0.0
Cash and cash equivalents	467.2	491.2
Marketable securities	0.0	36.3
Net debt	649.7	638.9
Net debt excluding IFRS 16 lease liabilities	587.8	638.9
Net debt to adjusted EBITDA	1.17x	1.16x
Net debt to adjusted EBITDA excluding IFRS 16 lease liabilities	1.06x	1.16x

In both 2019 and 2018, all externally imposed capital requirements were met. The Group has sufficient liquidity headroom within its committed debt facilities.

RHI Magnesita N.V. is subject to minimum capital requirements according to its articles of association. The articles of association stipulate a mandatory reserve of €288,699,230.59 which was created in connection with the merger.

58. Contingent liabilities

At 31 December 2019, warranties, performance guarantees and other guarantees amount to €44.0 million (31.12.2018: €43.0 million). Contingent liabilities have a remaining term between two months and three 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 €0.3 million (31.12.2018: €0.3 million) were recorded, of which €0.3 million (31.12.2018: €0.3 million) are related to contingent liabilities to creditors from joint ventures.

Individual administrative proceedings and lawsuits which result from ordinary activities are pending as of 31 December 2019 or can potentially be exercised against RHI Magnesita in the future. The related risks were analysed with a view to their probability of occurrence. The Group is a party in several tax proceedings in Brazil which involve an estimated amount of €233.5 million (31.12.2018: €169.0 million). No provision was set up to cover the potential disbursements related to such proceedings as, according to IFRS, management classified the risks of loss (based on the evaluation of legal advisors) as possible but not probable. The proceedings are as follows.

In 2011, the Brazilian Tax Authorities issued an assessment regarding Corporate Income Taxes on the amortization of goodwill related to the years 2008 and 2009. The tax authorities disallowed the deductibility of the amortisation of tax goodwill arising from operations with subsidiaries. In 2016, the company was notified of the decision issued by the Administrative Council of Tax Appeals ("CARF"), which cancelled more than 90% of the tax assessment. However, the CARF's ruling is still subject to appeals filed by both the company and the General Counsel to the National Treasury ("PGFN"). The final ruling for this proceeding is expected within one to two years. As of 31 December 2019, the potential risk amounts to €81.7 million, including interest and penalties (31.12.2018: €81.4 million).

In 2016, the Brazilian Tax Authorities considered the arguments partially accepted by the CARF in the proceeding started in 2011 to challenge goodwill deductions for the years 2011 and 2012. In December 2016, the company filed a defense against the tax assessment, which was partially granted by the tax authorities. The parties can appeal to the CARF as soon as the formal notice about the first-tier decision occurs. The final decision is expected within three to four years. As of 31 December 2019, the potential risk amounts to €38.1 million, including interest and penalties (31.12.2018: €37.5 million).

In 2019, the Brazilian Tax Authorities extended the goodwill challenge also for the years 2013 to 2018. The company will file a defense against the tax assessment notice. A preliminary first-tier decision by the tax authorities (the Federal Revenue Judgment Office in the city of Belo Horizonte) is expected within one to two years. As of 31 December 2019, the potential risk amounts to €53.3 million, including interest and penalties.

In 2013, the Brazilian Tax Authorities raised an assessment notice for allegedly failing to pay social security contributions in the period from January to December 2009. The company has appealed the assessment. Legal opinions demonstrate that the company has solid supporting documentation capable of reversing the assessment. The final decision is expected within one to two years. The potential loss from this proceeding amounts to €4.2 million (including interest and penalties) as at 31 December 2019 (31.12.2018: €4.8 million).

Furthermore, the Brazilian Tax Authorities issued a tax assessment against a former Brazilian holding company. The assessment relates to the offset of federal taxes' credits and debits performed by the company up to and including 2008, which have not been approved by the Tax Authorities. Legal opinions demonstrate that the company's arguments are solidly based on supporting documentation. The final decision is expected within four to five years. As of 31 December 2019, the potential risk amounts to €12.8 million, including interest and penalties (31.12.2018: €10.7 million).

The Brazilian Tax Authorities also issued a tax assessment regarding the Financial Compensation for Exploration of Mineral Resources ("CFEM"). Based on the opinion of its legal advisors, the company appealed against the assessment and the chances of loss in this proceeding were considered "possible" due to the applicable case-law of the Brazilian courts. Additionally, changes in the CFEM legislation mirror the company's interpretation and, therefore, demonstrate its accurateness. The final decision is expected within four to five years. As of 31 December 2019, the potential risk amounts to €14.0 million, including interest and penalties (31.12.2018: €12.9 million).

In addition to the above, the Brazilian Tax Authorities issued a tax assessment for an allegedly incurred use of Income Tax credits relating to the year 2015. Legal opinions demonstrate that the company's arguments are solidly based on substantial supporting documentation. The final decision is expected within four to five years. As of 31 December 2019, the potential risk amounts to €3.5 million, including interest and penalties.

Finally, in 2018 the State Tax Authorities issued a tax assessment in respect of the Tax on the Circulation of Goods and Services ("ICMS") for an alleged lack of compliance of ancillary obligation and lack of tax collection concerning the period stemming from years 2013 to 2017. The potential loss amounted to €4.1 million (including interest and penalties) as at 31 December 2018. In 2019, the State Taxpayers Council granted a 73% reduction of the original assessment amount through immediate payment. In view of this decision, in November 2019, the company opted to pay €1.2 million to settle the claim.

The calculation of income taxes of RHI Magnesita N.V. and its subsidiaries is based on the tax laws applicable in the individual countries. Due to their complexity, the tax items presented in the Consolidated Financial Statements may be subject to different interpretations by local finance authorities. In this context it should be noted that a tax provision is generally recognised when the group has a present obligation as a result of a past event, and when it is considered probable that there will be a future outflow of funds.

Since RHI Magnesita is continually adapting its global presence to improve customer service and maintain its competitive advantage, the group leads open discussions with tax authorities, mostly about the transfer of functions between related parties and their exit value. In this regard, disputes may arise, where the group's management understanding differs from the positions of the local authorities. In such cases, when an appeal is available, the group's management judgments are based on a likely outcome approach based on in-house tax experts, professional firms, and previous experiences when assessing the risks. Magnesita Refratários S.A., Contagem, Brazil, is also involved in other minor lawsuits totalling €25.9 million (31.12.2018: €17.6 million) which relate to a number of assessments concerning various taxes and related obligations.

Furthermore, Magnesita Refratários S.A., Contagem, Brazil, is party to a public civil action for damages caused by overloaded trucks in contravention with the Brazilian traffic legislation. In 2017, a decision was rendered in favour of Magnesita in the trial court considering the requests submitted by the Federal Public Attorney's Office to be completely devoid of legal merit. The decision taken by the trial court was subject to appeal by the Public Ministry of Minas Gerais. The final decision is expected in 10 years. The potential loss from this proceeding amounts to €13.3 million as at 31 December 2019 (31.12.2018: €12.1 million).

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Other minor proceedings and lawsuits in which subsidiaries are involved have no significant negative influence on the financial position and performance of the RHI Magnesita Group.

59. Other financial commitments

Capital commitments amount to €5.0 million as at 31 December 2019 (31.12.2018: €5.4 million) and are exclusively due to third parties. They are shown at nominal value.

In addition, the RHI Magnesita Group has purchase commitments related to the supply with raw materials, especially for electricity, natural gas, strategic raw materials as well as for the transport of raw materials within the Group. This results in other financial commitments of the nominal value of €175.5 million at the reporting date (31.12.2018: €96.2 million). The increase in other financial commitments compared to the previous year mainly results from energy purchase contracts concluded in 2019. The remaining terms of the contracts amount to up to seven years. Purchases from these arrangements are recognised 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.

In 2019 obligations from rental and leasing contracts are not part of other financial commitments due to the initial application of IFRS 16. Further information is provided under Note (2).

60. Expenses for the Group auditor

The expensed fees for the activities of the Group auditor PwC that are included in the Consolidated Statement of Profit or Loss are shown in the following table:

in € million	2019	2018
Audit of the Financial Statements	2.9	2.7
thereof invoiced by PwC Accountants N.V.	1.0	0.2
thereof invoiced by PwC network firms	1.9	2.5
Other audit related services	0.0	0.1
Tax compliance services	0.3	0.9
Other non-audit services	0.2	0.0
Total fees	3.4	3.7

The expensed fees for the audited financial statements in 2019 include the half year review procedures that were not applicable in 2018."

In 2019, other audit related services, tax compliance services and other non-audit services amounting to €0.5 million (2018: €1.0 million) were performed and invoiced by PwC network firms outside of the Netherlands.

61. Annual average number of employees

The average number of employees of the RHI Magnesita Group based on full time equivalents amounts to:

	2019	2018
Salaried employees	4,860	5,947
Waged workers	9,515	8,171
Number of employees on annual average	14,375	14,118

84 full time equivalents of salaried employees work in the Netherlands. In 2018 16 full time equivalents of salaried employees worked in the Netherlands.

62. Transactions with related parties

Related companies include subsidiaries that are not fully consolidated, joint ventures, associates and MSP Foundation, Liechtenstein, as a shareholder of RHI Magnesita N.V. since it exercises significant influence based on its share of more than 25% in RHI Magnesita N.V. In accordance with IAS 24.9v, the personnel welfare foundation of Stopinc AG, Hünenberg, Switzerland, also has to be considered a related company.

Related persons are persons having authority and responsibility for planning, directing and controlling the activities of the Group (key management personnel) and their close family members. Since 26 October 2017, key management personnel comprises of members of the Board of Directors of RHI Magnesita N.V. and the Executive Management Team. Before that, members of the Management Board and the Supervisory Board of RHI AG formed the key management personnel.

Related companies

In 2019 and 2018, the Group conducted the following transaction with its related companies:

in € million	Joint ventures		Associates		Non-consolidated subsidiaries	
	2019	2018	2019	2018	2019	2018
Revenue from the sale of goods and services	3.3	3.1	0.0	0.1	0.0	0.3
Purchase of raw materials	1.6	3.2	15.7	20.3	0.1	0.1
Interest income	0.0	0.1	0.8	0.8	0.0	0.0
Asset purchase	0.0	0.0	0.0	0.6	0.0	0.0
Trade and other receivables	1.3	0.9	0.0	0.0	0.2	0.2
Loans granted	0.0	0.0	0.8	10.4	0.0	0.1
Trade liabilities	0.0	0.3	0.7	5.1	0.7	0.9
Dividends received	10.5	10.8	2.9	0.2	0.0	0.0

In 2019 and 2018, the Group charged electricity and stock management costs to the joint venture MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria, and purchased raw materials. In 2019 and 2018, the associate Sinterco S.A., Nameche, Belgium, sold sintered doloma to the RHI Magnesita Group. Furthermore, the Group has a financing receivable of €0.8 million (31.12.2018: €10.4 million) from a loan agreement with Sinterco.

The balances at the end of 2019 are unsecured and will be paid in cash. Before the acquisition of Magnesita the Group had no associates.

To secure a pension claim of a former employee of MAGNIFIN, RHI Magnesita has assumed a surety amounting to €0.3 million (31.12.2018: €0.3 million). A resulting cash outflow is not expected. No guarantees were received.

In 2019 and 2018, no transactions were carried out between the RHI Magnesita Group and MSP 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 recognised as a defined benefit plan and is included in Note (28). At 31 December 2019, no current account receivables existed (31.12.2018: €0.0 million). In the past reporting period, employer contributions amounting to €0.6 million (2018: €0.0 million) were made to the personnel welfare foundation. The overfunding of the pension plan is recognised as a non-current asset of €0.2 million (31.12.2018: €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 Board of Directors and the Executive Management Team (EMT) in 2019 and 2018 as well as the former Management Board and Supervisory Board of RHI AG until October 2017.

For the financial year 2019, expenses for the remuneration of the Executive Directors and EMT members, active in 2019, recognised in the Consolidated Statement of Profit or Loss total €9.8 million (2018: €10.1 million including also remuneration of the former Management Board). The expenses, not including non-wage labour costs, amount to €9.2 million (2018: €9.1 million), of which €6.7 million (2018: €8.4 million) were related to current benefits (fixed, variable and other earnings), €0.0 million (2018: €0.0 million) to benefits related to the termination of employment and €2.5 million (2018: €0.7 million) to share-based remuneration. At 31 December 2019, liabilities for performance-linked variable earnings and share-based payments for active members of the former Management Board of €2.6 million

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(2018: €5.6 million) are recognised as liabilities. There are no obligations arising from post-employment benefits and legally required termination benefits.

In addition to the variable remuneration, the members of the former Management Board of RHI AG active in 2017 were also entitled to share-based payments. The programme was terminated after RHI AG merged with and into RHI Magnesita N.V. and the provisioned amount will be paid until 2020. In the financial year 2019, a payment of €1.0 million was made in this regard (2018: €1.4 million).

For Non-Executive Directors, remuneration totalling €1.2 million (2018: €1.0 million including remuneration for the former Supervisory Board) was recognised through profit or loss in the year 2019. The compensation paid to the Non-Executive Directors and the members of the former Supervisory Board only consists of short-term employee benefits.

Employee representatives acting as Non-Executive Directors of RHI Magnesita N.V. who are employed by the Group, do not receive compensation for their activity as Non-Executive Directors. For their activity as employees in the Company and the activity of their close relatives employed with RHI Magnesita, expenses of €0.2 million (2018: €0.8 million) are recognised.

No advance payments or loans were granted to key management personnel. The RHI Magnesita Group did not enter into contingent liabilities on behalf of the key management personnel.

Directors Dealings reports are published on the websites of RHI Magnesita N.V. and of the London Stock Exchange. The members of the Board of Directors are covered by Directors & Officers insurance at RHI Magnesita.

Detailed and individual information on the remuneration of the Board of Directors is presented in the Annual Report on Remuneration, in the Remuneration Committee report and the Remuneration Policy on pages 96 to 120 of the Annual Report of the RHI Magnesita Group.

Earnings of former members of the former Management Board amounted to €2.7 million (2018: €2.6 million), of which €0.2 million (2018: €0.6 million) are related to share-based remuneration.

RHI Magnesita and a close relative of a Non-Executive Director concluded a non-remunerated consultancy agreement to advise the Group on the economic and political framework in countries in which it does not yet have strong business links.

In the ordinary course of business, RHI Magnesita had the following transactions with various organisations with which certain members of the Board of Directors are associated. All transactions with related part are conducted on an arm's-length basis and in accordance with normal business terms.

Karl Sevelde holds position as a supervisory board member at Siemens AG Austria. Siemens AG Austria is both a supplier and customer of the Group with only immaterial transaction volumes. The related party was not involved in the decision making of any of these transactions.

Furthermore, Fiona Paulus is an independent non-executive board member of Interpipe Group. RHI Magnesita supplied the Interpipe Group with refractory materials amounting to about € 3.0 million in 2019. However, the materiality of these sales is not significant for the Group.

Equity-settled share option plan (LTIP)

The company implemented a share option plan for the members of senior management of the Group starting with 2018 which was approved by shareholders at the Annual General Meeting held on 7 June 2018. The Group operates in two different share option plans, one applicable for the financial year 2019 and one for the financial year 2018.

Each share option converts into one ordinary share of the Company on exercise. No amounts are paid or payable by the recipient on receipt of the option. The options carry rights to dividends but no voting rights. Options may be exercised at any time from the date of vesting to the date of their expiry.

The number of options granted is calculated in accordance with the performance-based formula approved by the shareholders at the annual general meeting and is subject to approval by the remuneration committee.

The formula rewards employees to the extent of the Group's achievements judged against quantitative criteria which are explained in detail in the Remuneration Committee Report.

The vesting period for each share option plan is three years. If the options remain unexercised after a period of seven years from the vesting date the options expire. Options are forfeited if the employee leaves the Group before the options vest.

	2019	2018
LTIP 2019	Number of options	Number of options
As at 1 January	0	-
Granted during the year	188,856	-
Exercised during the year	0	-
Forfeited during the year	(9,081)	-
As at 31 December	179,775	-
Vested and exercisable at 31 December	0	-

	2019	2018
LTIP 2018	Number of options	Number of options
As at 1 January	94,105	0
Granted during the year	89	107,599
Exercised during the year	0	0
Forfeited during the year	0	(13,494)
As at 31 December	94,194	94,105
Vested and exercisable at 31 December	0	0

No options expired or were exercised during the periods covered by the above tables.

The options outstanding at 31 December 2019 have a weighted-average contractual life of 2.5 years.

The outstanding share options for the LTIP 2018, which were granted on 6 June 2019, will expire on 7 June 2021. The share price at grant date for the 94,105 options was €53.13. The outstanding share options for the LTIP 2019, which were granted on 19 August 2019, will expire on 20 August 2022. The share price at grant date for the 188,856 options was €46.32.

The assessed fair value at grant date of options of the LTIP 2018 as 31 December 2019 was €54.48 per option. The assessed fair value at grant date of options of the LTIP 2019 granted during the year ended 31 December 2019 was €46.32 per option. The fair value of share options with non-market performance conditions has been calculated using the Black-Scholes option pricing model. The fair value of options with market-related performance conditions has been measured using the Monte Carlo model. The calculation takes into account the exercise price, the term of the option, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield, the risk free interest rate for the term of the option and the correlations and volatilities of the peer group companies.

The requirement that the employee has to save in order to purchase shares under the share purchase plan has been incorporated into the fair value at grant date by applying a discount to the valuation obtained. The discount has been determined by estimating the probability that the employee will stop saving based on historical behaviour.

The inputs used in the measurement of the fair values at grant date of the equity-settled share-based payment plans for 2019 and the previous year were as follows:

LTIP 2019 in € million	2019	2018
Fair value at grant date	8.3	-
Expected volatility (weighted-average)	30.36%	-
Expected life (weighted-average)	36 Months	-
Expected dividends	0.5	-
Risk-free interest rate	0.47%	-

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LTIP 2018 in € million	2019	2018
Fair value at grant date	5.0	5.0
Expected volatility (weighted-average)	21,45%	21,45%
Expected life (weighted-average)	24 Months	36 Months
Expected dividends	0,5	0,5
Risk-free interest rate	0,89%	0,89%

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous years. The expected life used in the model has been adjusted, based on management's best estimate, for the effect of non-transferability, exercise restrictions, and behavioural considerations.

63. Board of Directors of RHI Magnesita N.V.

The members of the Board of Directors are as follows:

Executive Directors

Stefan Borgas

Ian Botha

Non-Executive Directors

Herbert Cordt

James Leng

Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg

David Schlaff

Celia Baxter

John Ramsay

Janet Ashdown

Wolfgang Ruttenstorfer

Andrew Hosty

Karl Sevelde

Fiona Paulus

Employee Representative Directors

Franz Reiter

Michael Schwarz

64. Material events after the reporting date

In January 2020 RHI Magnesita has refinanced its USD 400.0 million revolving credit facility in order to further strengthen the capital structure and extend the debt maturity. The new revolving credit facility has been converted to EUR, increased to €600.0 million and the maturity has been extended to 2025.

On January 28, 2020 the Group acquired Missouri Refractories Co, Inc. (MORCO) in order to strengthen its position in the North American refractory market. The purchase price amounted to USD 9.8 million. The site is strategically located in the Midsouth of the United States, a region that is rapidly growing in importance for RHI Magnesita. It produces over 400 high-quality monolithic mixes, which serve a multitude of industries, including steel, cement, lime and glass.

The outbreak of the coronavirus COVID-19 will likely have an impact on RHI Magnesita's customer industries as well as on supply chain and production. Considering that the spread of the virus accelerated during the first quarter 2020, this event was classified as a non-adjusting event for accounting purposes. Given the uncertainties on scope and length as well as the ongoing developments, the Group cannot give any accurate or reliable estimates on potential quantitative impacts currently. This may result in an overall challenged and volatile market environment. The assessment on the ability of the group to operate as going concern is disclosed under Note (1).

After the reporting date on 31 December 2019, there were no other events of special significance which may have a material effect on the financial position and performance of the RHI Magnesita Group.

Company Financial Statements of RHI Magnesita N.V.

Company Balance Sheet as at 31 December 2019 (before appropriation of result)

in € million	Notes	31.12.2019	31.12.2018
ASSETS			
Non-current assets			
Financial non-current assets	(A)	815.3	915.5
Deferred tax assets		7.4	0.0
Total non-current assets		822.7	915.5
Current assets			
Receivables from group companies		28.5	0.0
Cash and cash equivalents	(B)	0.1	0.1
Total current assets		28.6	0.1
Total assets		851.3	915.6
EQUITY AND LIABILITIES			
Equity			
Share capital	(C)	49.5	48.3
Additional paid-in capital	(D)	361.3	305.5
Legal and mandatory reserves	(E)	197.9	209.9
Other reserves		95.0	78.7
Treasury shares	(F)	(18.8)	0.0
Result for the period	(J)	139.0	158.1
Shareholders' Equity		823.9	800.5
Current liabilities			
Other current liabilities	(G)	27.4	115.1
Total current liabilities		27.4	115.1
Total equity and liabilities		851.3	915.6

Company Statement of Profit or Loss for the period 1 January to 31 December 2019

in € million	Notes	2019	2018
General and administrative expenses		(14.7)	(8.5)
Result before taxation		(14.7)	(8.5)
Net financial result	(H)	(1.5)	0.0
Income tax		7.4	0.0
Net result from investments	(I)	147.8	166.6
Net result for the period	(J)	139.0	158.1

Movements in Shareholders' Equity

in € million	Share capital	Treasury shares	Additional paid-in capital	Legal and mandatory reserves			Other reserves	Net result	Equity attributable to shareholders
				Cash flow hedges	Currency translation	Mandatory reserve	Retained earnings		
31.12.2018	48.3	-	305.5	(5.0)	(73.8)	288.7	78.7	158.1	800.5
Appropriation of prior year result	-	-	-	-	-	-	158.1	(158.1)	-
Net result	-	-	-	-	-	-	-	139.0	139.0
Acquisition with non-controlling interests without change of control	-	-	-	0.1	(4.6)	-	(19.0)	-	(23.5)
Issue of ordinary shares related to the integrated tender offer of Magnesita	1.2	-	55.8	-	-	-	-	-	57.0
Shares repurchased	-	(18.8)	-	-	-	-	-	-	(18.8)
Share-based expenses	-	-	-	-	-	-	4.1	-	4.1
Dividends	-	-	-	-	-	-	(98.8)	-	(98.8)
Net income / (expense) recognised directly in equity	-	-	-	(6.1)	(1.4)	-	(28.1)	-	(35.6)
31.12.2019	49.5	(18.8)	361.3	(11.0)	(79.8)	288.7	95.0	139.0	823.9

in € million	Share capital	Additional paid-in capital	Legal and mandatory reserves			Other reserves	Net result	Equity attributable to shareholders
			Cash flow hedges	Currency translation	Mandatory reserve	Retained earnings		
31.12.2017	44.8	165.7	0.1	(54.7)	288.7	263.5	(89.3)	618.8
Effects of initial application of IFRS 15 (net of tax)						(6.0)		(6.0)
Effects of initial application of IFRS 9 (net of tax)						1.8		1.8
01.01.2018	44.8	165.7	0.1	(54.7)	288.7	259.3	(89.3)	614.6
Appropriation of prior year result	-	-	-	-	-	(89.3)	89.3	-
Net result	-	-	-	-	-	-	158.1	158.1
Acquisition with non-controlling interests without change of control	-	-	0.1	(10.7)	-	(52.1)	-	(62.7)
Issue of ordinary shares related to the integrated tender offer of Magnesita	3.5	139.8	-	-	-	-	-	143.3
Share-based expenses	-	-	-	-	-	1.0	-	1.0
Dividends	-	-	-	-	-	(33.6)	-	(33.6)
Net income / (expense) recognised directly in equity	-	-	(5.2)	(8.4)	-	(6.6)	-	(20.2)
31.12.2018	48.3	305.5	(5.0)	(73.8)	288.7	78.7	158.1	800.5

Notes

to the Company Financial Statements 2019

General

RHI Magnesita N.V. (the "Company"), a public company with limited liability under Dutch law is registered with the Dutch Trade Register of the Chamber of Commerce under the number 68991665 and has its corporate seat in Arnhem, Netherlands. The administrative seat and registered office is located at Kranichberggasse 6, 1100 Vienna, Austria.

The shares of RHI Magnesita N.V. (ISIN code NL0012650360) are listed on the Main Market of the London Stock Exchange and are included in the FTSE 250 index.

Basis of preparation

The Company financial statements have been prepared in accordance with the provisions of Part 9 of Book 2 of the Dutch Civil Code. The Company uses the option of Section 362, subsection 8, of Part 9, Book 2, of the Dutch Civil Code to prepare the Company financial statements on the basis of the same accounting principles as those applied for the Consolidated Financial Statements. Valuation is based on recognition and measurement requirements of accounting standards adopted by the EU (i.e. only IFRS that is adopted for use in the EU at the date of authorisation) as explained further in the notes to the Consolidated Financial Statements.

Significant accounting policies

Financial fixed assets

Investments in Group companies in the Company Financial Statements are accounted for using the equity method.

Net result from investments

The share in the result of investments comprises the share of the Company in the result of these investments.

Fixed assets

(A) Financial fixed assets

The financial fixed assets comprise investments in:

		31.12.2019	31.12.2018
	Country of core activity	Share in %	Share in %
Name and registered office of the company			
Didier Werke A.G., Wiesbaden, Germany	Germany	12.5	12.5
RHI Refractories Raw Material GmbH, Vienna, Austria	Austria	25.0	25.0
RHI Magnesita GmbH, Vienna, Austria	Austria	100.0	100.0
RHI Magnesita Trading B.V., Rotterdam, Netherlands	Netherlands	100.0	100.0

The investments have developed as follows:

in € million	2019	2018
At beginning of year	915.5	569.3
Effects of the initial application of IFRS 9 and IFRS 15	0.0	(4.2)
Transactions with non-controlling interests without change of control	(23.5)	(59.2)
Capital contributions	107.0	262.1
Changes from currency translation and cash flow hedges	(7.5)	(13.6)
Changes from defined benefit plans	(28.1)	(6.5)
Equity settled transaction	4.1	1.0
Dividend distribution	(300.0)	0.0
Net result from investments	147.8	166.6
Balance at year-end	815.3	915.5

As part of the finalisation of the ITO in 2019 (as described in Note (4) of the Consolidated Financial Statements), the Company issued and contributed a total of 1,140,658 new ordinary shares, with a fair value of €56,950,485, to RHI Magnesita GmbH. In July 2019 the Company made a capital contribution of €50,000,000 to RHI Magnesita Trading B.V.

The following list, prepared in accordance with the relevant legal requirements (Dutch Civil Code, Book 2, Sections 379), shows all companies in which RHI Magnesita N.V. holds a direct or indirect share of at least 20% (with the exception of the RHISA Employee Trust):

Ser. no.	Name and registered office of the company	31.12.2019		31.12.2018	
		Shareholder	Share in %	Shareholder	Share in %
1.	RHI Magnesita N.V., Arnhem, Netherlands				
	Fully consolidated subsidiaries				
2.	Agellis Group AB, Lund, Sweden	56.	100.0	56.	100.0
3.	Baker Refractories Holding Company, Delaware, USA	43.	100.0	43.	100.0
4.	Baker Refractories I.C., Inc., Delaware, USA	3.	100.0	3.	100.0
5.	Baker Refractories, Las Vegas, USA	43.	100.0	43.	100.0
6.	Betriebs- und Baugesellschaft mit beschränkter Haftung, Wiesbaden, Germany	10.	100.0	10.	100.0
7.	D.S.I.P.C.-Didier Société Industrielle de Production et de Constructions, Valenciennes, France	10.	100.0	10.	100.0
8.	Didier Belgium N.V., Evergem, Belgium	71.104.	100.0	71.104.	100.0
9.	Didier Vertriebsgesellschaft mbH, Wiesbaden, Germany	10.	100.0	10.	100.0
10.	Didier-Werke Aktiengesellschaft, Wiesbaden, Germany	1.56.	100.0	1.56.	100.0
11.	Dutch Brasil Holding B.V., Arnhem, Netherlands	110.	100.0	110.	100.0
12.	Dutch MAS B.V., Arnhem, Netherlands	10.	100.0	10.	100.0
13.	Dutch US Holding B.V., Arnhem, Netherlands	110.	100.0	110.	100.0
14.	FE "VERA", Dnepropetrovsk, Ukraine	56.	100.0	56.	100.0
15.	Feuerfestwerk Bad Hönningen GmbH, Hagen, Germany	115.	100.0	115.	100.0
16.	FireShark Refractories GmbH, Vienna, Austria	74.	100.0	74.	100.0
17.	GIX International Limited, Dinnington, United Kingdom	114.	100.0	114.	100.0
18.	INDRESCO U.K. Ltd., Dinnington, United Kingdom	17.	100.0	17.	100.0
19.	Intermetal Engineers Private Limited, Mumbai, India	52.	99.9	-	-
20.	INTERSTOP (Shanghai) Co., Ltd., Shanghai, PR China	107.	100.0	107.	100.0
21.	Liaoning RHI Jinding Magnesita Co., Ltd., Dashiqaio City, PR China ¹⁾	55.	83.3	55.	83.3
22.	LLC "RHI Wostok Service", Moscow, Russia	55.73.	100.0	55.73.	100.0
23.	LLC "RHI Wostok", Moscow, Russia	55.73.	100.0	55.73.	100.0
24.	Lokalbahn Mixnitz-St. Erhard Aktien-Gesellschaft, Vienna, Austria	93.	100.0	93.	100.0

Notes

to the Company Financial Statements 2019

Ser. no.	Name and registered office of the company	31.12.2019		31.12.2018	
		Shareholder	Share in %	Shareholder	Share in %
25.	LWB Holding Company, Delaware, USA	56.	100.0	56.	100.0
26.	LWB Refractories Belgium S.A., Liège, Belgium	44.,113.	100.0	44.,113.	100.0
27.	LWB Refractories Beteiligungs GmbH & Co. KG, Hagen, Germany	34.,56.	100.0	34.,56.	100.0
28.	LWB Refractories Hagen GmbH, Hagen, Germany	113.	100.0	113.	100.0
29.	LWB Refractories Holding France S.A.S., Valenciennes, France	113.	100.0	113.	100.0
30.	M.E. Refractories Company FZE i. l., Dubai, United Arab Emirates	33.	100.0	33.	100.0
31.	Magnesit Anonim Sirketi, Eskisehir, Turkey ²⁾	55.	100.0	55.	100.0
32.	Magnesita Asia Refractory Holding Ltd, Hong Kong, PR China	29.	100.0	29.	100.0
33.	Magnesita Finance S.A., Luxembourg, Luxembourg	49.	100.0	49.	100.0
34.	Magnesita Grundstücks-Beteiligungs GmbH, Hagen, Germany	49.	100.0	49.	100.0
35.	Magnesita International Limited, London, United Kingdom	49.	100.0	49.	100.0
36.	Magnesita Malta Finance Ltd., St. Julians, Malta	37.,113.	100.0	37.,113.	100.0
37.	Magnesita Malta Holding Ltd., St. Julians, Malta	44.,113.	100.0	44.,113.	100.0
38.	Magnesita Mineração S.A., Brumado, Brazil	33.,49.	100.0	33.,49.	100.0
39.	Magnesita NAM Insurance Company, Delaware, USA, i.l.	25.	100.0	25.	100.0
40.	Magnesita Refractories (Canada) Inc., Montreal, Canada	3.	100.0	3.	100.0
41.	Magnesita Refractories (Dalian) Co. Ltd., Dalian, PR China	33.	100.0	33.	100.0
42.	Magnesita Refractories Company, York, USA	25.	100.0	25.	100.0
43.	Magnesita Refractories Mexico S.A. de C.V., Monterrey, Mexico	3.,4.	100.0	3.,4.	100.0
44.	Magnesita Refractories GmbH, Hagen, Germany	113.	100.0	113.	100.0
45.	Magnesita Refractories Ltd., Dinnington, United Kingdom	3.	100.0	3.	100.0
46.	Magnesita Refractories Middle East FZE, Dubai, United Arab Emirates	33.	100.0	33.	100.0
47.	Magnesita Refractories S.C.S., Valenciennes, France	29.,113.	100.0	29.,113.	100.0
48.	Magnesita Refractories S.R.L., Milano, Italy	113.	100.0	113.	100.0
49.	Magnesita Refratários S.A., Contagem, Brazil	11.	100.0	11.	85.2
50.	Magnesita Resource (Anhui) Company. Ltd., Chizhou, PR China	32.	100.0	32.	100.0
51.	Mezubag AG, Freienbach, Switzerland	107.	100.0	107.	100.0
52.	Orient Refractories Limited, Mumbai, India	13.	66.5	13.	66.5
53.	Premier Periclase Limited, Drogheda, Ireland	13.	100.0	13.	100.0
54.	Producción RHI México, S. de R.L. de C.V., Ramos Arizpe, Mexico	86.,114.	100.0	86.,114.	100.0
55.	Radex Vertriebsgesellschaft m.b.H., Leoben, Austria	110.	100.0	110.	100.0
56.	Rearden G Holdings Eins GmbH, Hagen, Germany	33.	100.0	33.	100.0
57.	Refractarios Argentinos S.A.I.C.M., San Nicolás, Argentina	49.,59.	100.0	49.,59.	100.0
58.	Refractarios Magnesita Chile S/A, Santiago, Chile	49.,57.	100.0	49.,57.	100.0
59.	Refractarios Magnesita Colombia S/A, Sogamoso, Colombia	49.	100.0	49.	100.0
60.	Refractarios Magnesita del Perú S.A.C., Lima, Peru	49.,59.	100.0	49.,59.	100.0
61.	Refractory Intellectual Property GmbH & Co KG, Vienna, Austria	62.,73.	100.0	62.,73.	100.0
62.	Refractory Intellectual Property GmbH, Vienna, Austria	73.	100.0	73.	100.0
63.	Reframec Manutenção e Montagens de Refratários S.A., Matozinhos, Brazil	49.	100.0	49.	100.0
64.	RHI Argentina S.R.L., Buenos Aires, Argentina	13.,114.	100.0	13.,114.	100.0
65.	RHI Canada Inc., Burlington, Canada	114.	100.0	114.	100.0
66.	RHI Chile S.A., Santiago, Chile	17.,114.	100.0	17.,114.	100.0
67.	RHI Clasil Private Limited, Mumbai India ¹⁾	114.	53.7	114.	53.7
68.	RHI Dinaris GmbH, Wiesbaden, Germany	102.	100.0	102.	100.0

Ser. no.	Name and registered office of the company	31.12.2019		31.12.2018	
		Shareholder	Share in %	Shareholder	Share in %
69.	RHI Finance A/S, Hellerup, Denmark	73.	100.0	73.	100.0
70.	RHI GLAS GmbH, Wiesbaden, Germany	102.	100.0	102.	100.0
71.	RHI India Private Limited, Navi Mumbai, India	11.,114.	100.0	11.,114.	100.0
72.	RHI ITALIA S.R.L., Brescia, Italy	73.	100.0	73.	100.0
73.	RHI Magnesita GmbH, Vienna, Austria	1.	100.0	1.	100.0
74.	RHI Magnesita Distribution B.V., Rotterdam, Netherlands	75.	100.0	75.	100.0
75.	RHI Magnesita Trading B.V., Rotterdam, Netherlands	1.	100.0	1.	100.0
76.	RHI Marvo Feuerungs- und Industriebau GmbH, Gerbstedt, Germany	77.	100.0	77.	100.0
77.	RHI MARVO Feuerungs- und Industriebau GmbH, Kerpen, Germany	10.	100.0	10.	100.0
78.	RHI MARVO S.R.L., Ploiesti, Romania	55.,108.	100.0	55.,108.	100.0
79.	RHI Normag AS, Porsgrunn, Norway	55.	100.0	55.	100.0
80.	RHI Refractories (Dalian) Co., Ltd., Dalian, PR China	55.	100.0	55.	100.0
81.	RHI Refractories (Site Services) Ltd., Dinnington, United Kingdom	18.	100.0	18.	100.0
82.	RHI Refractories Africa (Pty) Ltd., Sandton, South Africa	55.,105.	100.0	55.,105.	100.0
83.	RHI Refractories Andino C.A., Puerto Ordaz, Venezuela	114.	100.0	114.	100.0
84.	RHI Refractories Asia Pacific Pte. Ltd., Singapore	73.	100.0	73.	100.0
85.	RHI Refractories Egypt LLC., Cairo, Egypt	55.,108.	100.0	55.,108.	100.0
86.	RHI Refractories España, S.L., Lugones, Spain	10.,12.	100.0	10.,12.	100.0
87.	RHI Refractories France SA, Valenciennes, France ³⁾	106.	100.0	106.	100.0
88.	RHI Refractories Ibérica, S.L., Lugones, Spain	106.	100.0	106.	100.0
89.	RHI Refractories Italiana s.r.l., Brescia, Italy; i.l.	106.	100.0	106.	100.0
90.	RHI Refractories Liaoning Co., Ltd., Bayuquan, PR China ¹⁾	55.	66.0	55.	66.0
91.	RHI Refractories Mercosul Ltda., Sao Paulo, Brazil	108.,114.	100.0	108.,114.	100.0
92.	RHI Refractories Nord AB, Stockholm, Sweden	106.	100.0	106.	100.0
93.	RHI Refractories Raw Material GmbH, Vienna, Austria	1.,55.,73.	100.0	1.,55.,73.	100.0
94.	RHI Refractories Site Services GmbH, Wiesbaden, Germany	10.	100.0	10.	100.0
95.	RHI Refractories UK Limited, Bonnybridge, United Kingdom	10.	100.0	10.	100.0
96.	RHI Refratários Brasil Ltda, Contagem, Brazil; i.l.	13.,38.	100.0	13.,38.	100.0
97.	RHI Sales Europe West GmbH, Urmitz, Germany	10.,106.	100.0	10.,106.	100.0
98.	RHI Trading (Dalian) Co., Ltd., Dalian, PR China	55.	100.0	55.	100.0
99.	RHI Ukraina LLC, Dnepropetrovsk, Ukraine	55.,108.	100.0	55.,108.	100.0
100.	RHI United Offices America, S.A. de C.V., Monterrey, Mexico	86.,101.	100.0	86.,101.	100.0
101.	RHI United Offices Europe, S.L., Lugones, Spain	86.	100.0	86.	100.0
102.	RHI Urmitz AG & Co. KG, Mülheim-Kärlich, Germany	9.,10.	100.0	9.,10.	100.0
103.	RHI US Ltd., Delaware, USA	13.	100.0	13.	100.0
104.	RHI-Refmex, S.A. de C.V., Ramos Arizpe, Mexico	86.,114.	100.0	86.,114.	100.0
105.	RHISA Employee Trust, Sandton, South Africa ⁴⁾	.	0.0	-	0.0
106.	SAPREF AG für feuerfestes Material, Basel, Switzerland	114.	100.0	114.	100.0
107.	Stopinc Aktiengesellschaft, Hünenberg, Switzerland	10.,55.	100.0	10.,55.	100.0
108.	Veitscher Vertriebsgesellschaft m.b.H., Vienna, Austria	73.	100.0	73.	100.0
109.	Veitsch-Radex America LLC., Delaware, USA	103.	100.0	103.	100.0
110.	Veitsch-Radex GmbH & Co OG, Vienna, Austria	73.,111.	100.0	73.,111.	100.0
111.	Veitsch-Radex GmbH, Vienna, Austria	73.	100.0	73.	100.0
112.	Veitsch-Radex Vertriebsgesellschaft m.b.H., Vienna, Austria	73.	100.0	73.	100.0

Notes

to the Company Financial Statements 2019

Ser. no.	Name and registered office of the company	31.12.2019		31.12.2018	
		Shareholder	Share in %	Shareholder	Share in %
113.	Vierte LWB Refractories Holding GmbH, Hagen, Germany	27.,56.	100.0	27.,56.	100.0
114.	VRD Americas B.V., Arnhem, Netherlands	55.,73.	100.0	55.,73.	100.0
115.	Zimmermann & Jansen GmbH, Wiesbaden, Germany	10.	100.0	10.	100.0
Subsidiaries not consolidated due to minor significance				.	
116.	Dr.-Ing. Petri & Co. Unterstützungsgesellschaft m.b.H., Wiesbaden, Germany	10.	100.0	10.	100.0
117.	Grayhill MDMM Holding Ltda., São Paulo, Brazil	49.	100.0	49.	100.0
118.	Guapare S.A, Montevideo, Uruguay	49.	100.0	49.	100.0
119.	Magnesita Refractories A.B., Stocksund, Sweden	113.	100.0	113.	100.0
120.	Magnesita Refractories PVT Ltd, Mumbai, India	56.,113.	100.0	56.,113.	100.0
121.	Magnesita Refractories S.A. (Pty) Ltd., Sandton, South Africa	44.	100.0	44.	100.0
122.	MAG-Tec Participações Ltda. Ltda., Contagem, Brazil; i.L.	49.	98.7	49.	98.7
123.	Metal Data Participações Ltda., Contagem, Brazil, i.L.	49.	100.0	49.	61.3
124.	Metal Data S.A. — Mineração e Metalurgia, Contagem, Brazil; i.L.	49.,123.	100.0	49.,123.	100.0
125.	MMD Araçuaí Holding Ltda., São Paulo, Brazil, i.L.	49.	100.0	49.	100.0
126.	Refractarios Especiales Y Moliendas S.A., Buenos Aires, Argentina; i.L.	57.	100.0	57.	100.0
127.	Refractarios Magnesita Uruguay S/A, Montevideo, Uruguay	49.	100.0	49.	100.0
128.	RHI Réfractaires Algérie E.U.R.L., Sidi Amar, Algeria	87.	100.0	87.	100.0
Equity-accounted joint ventures and associated companies				.	
129.	Krosaki Magnesita Refractories LLC, Delaware, USA, i.L.	42.	40.0	42.	40.0
130.	Magnesita Envoy Asia Ltd., Kaohsiung, Taiwan	3.	50.0	3.	50.0
131.	MAGNIFIN Magnesiaprodukte GmbH & Co KG, St. Jakob, Austria	108.,133.	50.0	108.,133.	50.0
132.	Sinterco S.A., Nameche, Belgium	56.	70.0	56.	70.0
Other immaterial investments, measured at cost				.	
133.	MAGNIFIN Magnesiaprodukte GmbH, St. Jakob, Austria	108.	50.0	108.	50.0

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

2) Further shareholders are VRD Americas B.V., Lokalbahn Mixnitz St. Erhard Aktien-Gesellschaft and Veitscher Vertriebsgesellschaft mbH.

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

4) Controlling influence due to contractual terms and conditions.

i.L. in liquidation

Current assets*(B) Cash and cash equivalents*

Cash and cash equivalents are at RHI Magnesita N.V.'s free disposal.

Equity*(C) Share capital*

The Company's authorised share capital amounts to €100,000,000, comprising 100,000,000 ordinary shares, each of €1 nominal value. During 2019 the Company issued 1,140,658 new shares to the relevant shareholders of Magnesita Refratários S.A. as agreed in the terms of the Integrated Tender Offer. As at 31 December 2019, RHI Magnesita N.V.'s issued and fully paid-in share capital consists of 49,477,705 ordinary shares (31.12.2018: 48,337,047 ordinary shares).

(D) Additional paid-in capital

Additional paid-in capital comprises premiums on the issue of shares less issue costs by RHI Magnesita N.V.

*(E) Legal and mandatory reserves**Cash flow hedges*

The item cash flow hedges include gains and losses from the effective part of cash flow hedges less tax effects. Further information on hedge accounting is included in Note (56) of the Consolidated Financial Statements.

Currency translation

Currency translation includes the accumulated currency translation differences from translating the Financial Statements of foreign subsidiaries as well as unrealised 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 recognised 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 cease to form part of a net investment in a foreign operation, the currency translation differences of these monetary items previously recognised in other comprehensive income are reclassified to profit or loss.

The cash flow hedges reserve and the currency translation reserve are legal reserves and are restricted for distribution.

Mandatory reserve

The articles of association stipulate a mandatory reserve of €288,699,230.59 which was created in connection with the merger.

No distributions, allocations or additions may be made, and no losses of the Company may be allocated to the mandatory reserve.

(F) Treasury shares

In year 2019 the Company repurchased 400,000 shares from the market for a total cash consideration of €18.8 million.

Notes

to the Company Financial Statements 2019

Current liabilities

(G) Other current liabilities

in € million	31.12.2019	31.12.2018
Trade payables	0.5	5.1
Payables to group companies	1.0	105.6
Dividend payable	24.5	0.0
Accrued liabilities	1.4	4.4
Total current liabilities	27.4	115.1

Accrued liabilities include two outstanding disputes relating to the delisting in Austria and the demerger to the Netherlands. As at 31 December 2019, the resulting liabilities are estimated at €0.5 million. The other current liabilities are due in less than one year. The fair value of other current liabilities approximates the book value, due to their short-term character.

(H) Net financial result

The 2019 net financial result mainly consists of €1.4 million interest expense from intercompany financing transactions.

(I) Net results from investments

In year 2019 the full year results of the investments amount to a profit of €147.8 million (€166.6 million) and are recognised in the Company Statement of Profit or Loss.

(J) Net result for the period

In 2019, there are no differences in the result between the Company Financial Statements and the Consolidated Financial Statements.

Proposed appropriation of result

It is proposed that pursuant to Article 27 clause 1 of the articles of association of the Company the result shown in RHI Magnesita N.V. income statement be appropriated as follows:

in € million	2019
Profit attributable to shareholders	139.0
In accordance with Article 27 clause 1 to be transferred to reserves	0.0
At the disposal of the General Meeting of Shareholders	139.0

For 2019, the Board of Directors has recommended not to pay a dividend for the shareholders of RHI Magnesita N.V., subject to shareholder approval at the Annual General Meeting, on 18 June 2020. This decision will be reviewed later in the year once the outlook becomes clearer.

(I) Treasury shares

In 2019, the Company repurchased 400,000 shares from the market for a total cash consideration of €18.8 million.

Other notes

Number of employees

The average number of employees of RHI Magnesita N.V. during 2019 amounts to nil (2018: nil).

Other information

Information regarding auditor's fees, number of employees of RHI Magnesita Group and the remuneration of the Board of Directors is included in Note (60) to (62) of the Consolidated Financial Statements.

Material events after the reporting date

In January 2020 the Company registered a branch office in Vienna. As of February 2020, the branch has 47 employees.

Information regarding the outbreak and the impact of COVID-19 is provided under Note (64) in the Consolidated Financial Statements.

After the reporting date on 31 December 2019, there were no other events of special significance which may have a material effect on the financial position and performance of the RHI Magnesita N.V.

Vienna, 31 March 2020

Board of Directors

Executive Directors

Stefan Borgas

Ian Botha

Non-Executive Directors

Herbert Cordt

James Leng

Stanislaus Prinz zu Sayn-Wittgenstein-Berleburg

David Schlaff

Celia Baxter

John Ramsay

Janet Ashdown

Wolfgang Ruttenstorfer

Andrew Hosty

Karl Sevelde

Fiona Paulus

Employee Representative Directors

Franz Reiter

Michael Schwarz

Other information

Provisions of the articles of association on profit and distributions

The stipulations of Article 27 and 28 of the Articles of Association concerning profit and distributions are:

27 Profit and distributions

27.1 The Board may resolve that the profits realised during a financial year will fully or partially be appropriated to increase and/or form reserves. With due regard to Article 26.2, a deficit may only be offset against the reserves prescribed by law to the extent this is permitted by law.

27.2 The allocation of profits remaining after application of Article 27.1 shall be determined by the General Meeting. The Board shall make a proposal for that purpose. A proposal to make a distribution of profits shall be dealt with as a separate agenda item at the General Meeting.

27.3 Distribution of profits shall be made after adoption of the annual accounts if permitted under the law given the contents of the annual accounts.

27.4 The Board may resolve to make interim distributions and/or to make distributions at the expense of any reserve of the Company, other than the Mandatory Reserve.

27.5 Distributions on shares may be made only up to an amount which does not exceed the amount of the Distributable Equity. If it concerns an interim distribution, the compliance with this requirement must be evidenced by an interim statement of assets and liabilities as referred to in Section 2:105 paragraph 4 of the Dutch Civil Code. The Company shall deposit the statement of assets and liabilities at the Dutch Trade Register within eight days after the day on which the resolution to make the distribution is published.

27.6 Distributions on shares payable in cash shall be paid in euro, unless the Board determines that payment shall be made in another currency.

27.7 The Board is authorised to determine that a distribution on shares will not be made in cash but in kind or in the form of shares, or to determine that shareholders may choose to accept the distribution in cash and/or in the form of shares, all this out of the profits and/or at the expense of reserves, other than the Mandatory Reserve, and all this if and in so far the Board has been designated by the General Meeting in accordance with Article 6.1. The Board shall set the conditions under which such a choice may be made.

28 Release for payment

Distributions of profits and other distributions shall be made payable four weeks after adoption of the relevant resolution, unless the Board or the General Meeting at the proposal of the Board determine another date.

Independent auditor's report

To: the general meeting and the board of directors of RHI Magnesita N.V.

Report on the financial statements 2019

Our opinion

In our opinion, the financial statements of RHI Magnesita N.V. ('the Company') give a true and fair view of the financial position of the Company and the Group (the company together with its subsidiaries) as at 31 December 2019, and of its result and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the accompanying financial statements 2019 of RHI Magnesita N.V., Arnhem, the Netherlands. The financial statements include the consolidated financial statements of the Group and the company financial statements.

The consolidated financial statements comprise:

- the Consolidated Statement of Financial Position as at 31 December 2019;
- the following statements for 2019: the Consolidated Statement of Profit or Loss and the Consolidated Statement of Comprehensive Income, Cash Flows and Changes in Equity; and
- the Notes to the Consolidated Financial Statements 2019, comprising significant accounting policies and other explanatory information.

The company financial statements comprise:

- the Company Balance Sheet as at 31 December 2019;
- the Company Statement of Profit or Loss for the period 1 January to 31 December 2019, and
- the Notes, comprising significant accounting policies applied and other explanatory information.

The financial reporting framework applied in the preparation of

the financial statements is EU-IFRS and the relevant provisions of Part 9 of Book 2 of the Dutch Civil Code.

The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. We have further described our responsibilities under those standards in the section 'Our responsibilities for the audit of the financial statements' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of RHI Magnesita N.V. in accordance with the European Union Regulation on specific requirements regarding statutory audit of public-interest entities, the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).

Our audit approach

Overview and context

RHI Magnesita N.V. is a worldwide producer of refractory products. Refractory products are used in all the world's high-temperature industrial processes. The Group is comprised of several components and therefore we considered our group audit scope and approach as set out in the section 'The scope of our group audit'. We paid specific attention to the areas of focus driven by the operations of the Group, as set out below.

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where the board of directors made important judgements, for example, in respect of significant accounting

estimates that involved making assumptions and considering future events that are inherently uncertain. In Note (10) of the consolidated financial statements the Company describes the areas of judgement in applying accounting policies and the key sources of estimation uncertainty. Given the significant estimation uncertainty and the related higher inherent risks of material misstatement in the impairment assessment of goodwill and other intangible assets, the recoverability of deferred tax assets and the accounting for the plant rationalisation programme, we considered these matters as key audit matters as set out in the section 'Key audit matters' of this report. Furthermore, we identified the implementation of IFRS 16, the new leasing standard, a key audit matter.

Other areas of focus, that were not considered key audit matters, were the migration to a single instance of SAP, which mainly relates to the migration of legacy Magnesita SAP instance to the former RHI SAP instance as well as the implementation of a target operating model which consists of the transfer of functions in local entities to centralised Global Business Support ("GBS") centres.

We ensured that the audit teams at both group and component level included the appropriate skills and competences which are needed for the audit of an international industrial products company. We therefore included experts and specialists in the areas of amongst others forensics, IT and corporate income tax, as well as experts in the areas of valuation and employee benefits, in our team.

The outline of our audit approach was as follows:



- Accounting for the plant rationalisation programme
- Valuation of goodwill and other intangible assets
- Implementation of IFRS 16, leasing

Materiality

The scope of our audit is influenced by the application of materiality, which is further explained in the section 'Our responsibilities for the audit of the financial statements'.

Based on our professional judgement we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and to evaluate the effect of identified misstatements, both individually and in aggregate, on the financial statements as a whole and on our opinion.

Overall group materiality	€14.0 million (2018: €13.8 million).
Basis for determining materiality	We used our professional judgement to determine overall materiality. As a basis for our judgement we used 5% of adjusted profit before tax. We adjusted profit before tax for impairment and restructuring changes which were considered unusual or infrequently occurring items.
Rationale for benchmark applied	<p>We used profit before tax adjusted for unusual or infrequently occurring items as the primary benchmark, a generally accepted auditing practice, based on our analysis of the common information needs of users of the financial statements. On this basis, we believe that profit before tax adjusted for unusual or infrequently occurring items is an important metric for the financial performance of the Company.</p> <p>In prior year we used earnings before interest, taxes depreciation and amortisation (EBITDA) as materiality benchmark due to the high number of non-recurring items and the former Magnesita business not being fully integrated yet. In 2019, the non-recurring items are mainly limited to asset write downs and restructuring costs and those were factored in, in our benchmark.</p>
Component materiality	To each component in our audit scope, we, based on our judgement, allocate materiality that is less than our overall group materiality. The range of materiality allocated across components was between € 1,1 million and € 8,3 million.

whole, taking into account the management structure of the Group, the nature of operations of its components, the accounting processes and controls, and the markets in which the components of the Group operate. In establishing the overall group audit strategy and plan, we determined the type of work required to be performed at component level by the Group engagement team and by each component auditor.

We have audited the complete financial information of 15 components, of which 3 components are individually financially significant to the Group:

- RHI Magnesita GmbH, Austria;
- RHI US, USA and;
- Magnesita Refratários S.A., Brazil.

The remaining 12 components, of which we conducted audits on the complete financial information, were selected to achieve appropriate coverage. We also selected 13 components to achieve appropriate coverage on financial line items in the consolidated financial statements and to build an element of unpredictability in our audit.

We also take misstatements and/or possible misstatements into account that, in our judgement, are material for qualitative reasons.

We agreed with the audit committee of the board of directors that we would report to them misstatements identified during our audit above €0.7 million (2018: €0.7 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

The scope of our group audit

RHI Magnesita N.V. is the parent company of a group of entities. The financial information of this group is included in the consolidated financial statements of RHI Magnesita N.V.

We tailored the scope of our audit to ensure that we, in aggregate, provide sufficient coverage of the financial statements for us to be able to give an opinion on the financial statements as a

In total, in performing these procedures, we achieved the following coverage on the financial line items:

Revenue	85%
Total assets	85%
EBIT	84%
EBITDA	86%
Profit before tax	81%

None of the remaining components represented more than 3% of total group revenue or total group assets. For those remaining components we performed, among other things, analytical procedures to corroborate our assessment that there were no significant risks of material misstatements within those components.

The group engagement team performed the audit work for the parent company RHI Magnesita N.V. as well as the GBS office activities in Spain on areas such as fixed assets, cash and cash equivalents and aspects of accounts receivable and accounts payable. In addition, the group engagement team performed the audit work over the headquarter related activities in Vienna. This includes group consolidation, inventory valuation, the adoption of IFRS 16, financial statement disclosures, remuneration disclosures and a number of complex items, such as goodwill impairment testing, share based compensation and compliance of accounting positions taken by the Group in accordance with EU IFRS.

Where component auditors performed the work, we determined the level of involvement we needed to have in their audit work to be able to conclude whether we had obtained sufficient and appropriate audit evidence as a basis for our opinion on the consolidated financial statements as a whole.

We issued instructions to the component audit teams in our audit scope. These instructions included amongst others our risk analysis, materiality and scope of the work. We explained to the component audit teams the structure of the Group, the main developments that are relevant for the component auditors, the risks identified, the materiality levels to be applied and our global audit approach. We had individual meetings and/or calls with each of the in-scope component audit teams during the year including upon conclusion of their work. During these calls and meetings, we discussed the significant accounting and audit issues identified by the component auditors, the reports of the component auditors, the findings of their procedures and other matters, which could be of relevance for the consolidated financial statements.

The group engagement team visits the component teams and local management partly on a rotational basis. In the current year, the group audit team visited the RHI Magnesita finance

functions in Austria, the Netherlands, Spain, Brazil, China and the U.S. given the size of these operating locations. We also visited the locations in Switzerland, Germany, Spain and Argentina. We reviewed selected working papers of the component auditors. Our component auditors in Austria visited one of the group's German locations.

By performing the procedures above at components, combined with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence on the Group's financial information, as a whole, to provide a basis for our opinion on the financial statements.

Our focus on the risk of fraud and non-compliance with laws and regulations

Our objectives

The objectives of our audit are:

In respect to fraud:

- to identify and assess the risks of material misstatement of the financial statements due to fraud;
- to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate audit responses; and
- to respond appropriately to fraud or suspected fraud identified during the audit.

In respect to non-compliance with laws and regulations:

- to identify and assess the risk of material misstatement of the financial statements due to non-compliance with laws and regulations; and
- to obtain reasonable assurance that the financial statements, taken as a whole, are free from material misstatement, whether due to fraud or error when considering the applicable legal and regulatory framework.

The primary responsibility for the prevention and detection of fraud and non-compliance with laws and regulations lies with executive directors with the oversight of the board of directors.

Our risk assessment

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption. We evaluated the fraud risk factors to consider whether those factors indicated a risk of material misstatement due to fraud.

In addition, we performed procedures to obtain an understanding of the legal and regulatory frameworks that are applicable for the Group. We identified provisions of those laws and regulations, generally recognised to have a direct effect on the determination of material amounts and disclosures in the financial statements such as the financial reporting framework and tax, environmental and labour related laws and regulations.

As in all of our audits, we addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by board of directors that may represent a risk of material misstatement due to fraud. We refer to the key audit matters for examples of our approach related to areas of higher risk due to accounting estimates where management makes significant judgments.

Our response to the risks identified

We performed the following audit procedures to respond to the assessed risks:

- We performed data analysis of high-risk journal entries and evaluated key estimates and judgements for bias by RHI Magnesita N.V., including retrospective reviews of prior year's estimates. Where we identified instances of unexpected journal entries or other risks through our data analytics, we performed additional audit procedures to address each identified risk. These procedures also included testing of transactions back to source information.
- We inquired with executive directors, other members of management and the board of directors as to whether they have any knowledge of (suspected) fraud, their views on overall fraud risks within the Group and their perspectives on the Groups mitigating controls addressing the risk of fraud.
- We assessed the matters reported on the Group's whistleblowing and complaints procedures with the entity and results of management's investigation of such matters.
- With respect to the risk of fraud in revenue we performed testing over the existence of recorded revenue transactions and, where applicable addressed the risk for improperly shifting revenues to an earlier or later period.
- With respect to the risk of bribery and corruption across various countries, we performed specific inquiries with (local) management in order to identify higher risk areas.
- We incorporated an element of unpredictability in our audit.
- We considered the outcome of our other audit procedures and evaluated whether any findings or misstatements were indicative of fraud.

- We obtained audit evidence regarding compliance with the provisions of those laws and regulations generally recognised to have a direct effect on the determination of material amounts and disclosures in the financial statements.
- As to the other laws and regulations, we inquired with executive directors and/or the board of directors as to whether the entity is in compliance with such laws and regulations and inspected correspondence, if any, with relevant licensing and regulatory authorities.

Identified (indications) of fraud

During our audit, the Company disclosed to us instances of (indications of) fraud, which we followed up with our forensic specialists. We communicated those (indications of) fraud to the relevant local audit teams who performed sufficient and appropriate audit procedures supplemented by audit procedures performed at the group level. These procedures include amongst others obtaining an understanding of Company's assessments and validating aspects of the investigations performed by the Company. Where appropriate, we consulted our forensic specialists.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements. We have communicated the key audit matters to the audit committee of the board of directors. The key audit matters are not a comprehensive reflection of all matters identified by our audit and that we discussed. In this section, we described the key audit matters and included a summary of the audit procedures we performed on those matters.

We addressed the key audit matters in the context of our audit of the financial statements as a whole, and in forming our opinion thereon. We do not provide separate opinions on these matters or on specific elements of the financial statements. Any comment or observation we made on the results of our procedures should be read in this context.

Given the non-recurring nature of the key audit matters related to the finalisation of the Purchase Price Allocation in respect of the acquisition of Magnesita Refratários S.A. and the Implementation of IFRS 15, the new revenue standard as considered in the 2018 auditor's report, these have not been disclosed as key audit matters in 2019.

Key audit matter**Our audit work and observations****Recoverability of deferred tax assets**

Refer to Note (8), (10), (17) and (45) of the consolidated financial statements

The Group capitalised deferred tax assets on tax loss carry-forwards and deductible temporary differences arising on various items for the amount of €181.9 million. Reference is made to Note (17) of the financial statements.

Deferred tax assets are capitalised based on the assumption that sufficient taxable income will be generated against which loss carry-forwards and other deductible temporary differences can be offset. This assumption is based on estimates of the current and the estimated taxable results, and any future measures implemented by the company in several jurisdictions concerned that will have an effect on income tax. The Group also has losses and other temporary differences for which no deferred tax asset has been recognised in these consolidated financial statements.

Due to the inherent level of uncertainty, the potential limitations in the recoverability of deferred tax assets and the significant judgment involved, we considered the recoverability of deferred tax assets to be a key audit matter for our audit.

We have requested and obtained evidence for the existence and accuracy of the tax loss carry-forwards and assessed the expiration dates per jurisdiction. In addition, together with local tax specialists, we have assessed per tax jurisdiction the level of potential offsetting of the deferred tax assets with the deferred tax liabilities.

Furthermore, we have critically assessed the underlying assumptions of the forecasted taxable income through agreeing the forecasted future taxable profits with approved business plans in a tax jurisdiction. We also assessed the past performance against the expected future tax profits in the business plans used by the Group, by using our knowledge of the Group and the industry in which it operates. In addition, we have considered the local expiry period together with any applicable restrictions in recovery for each individual jurisdiction.

We assessed and corroborated the adequacy and appropriateness of the disclosure made in the consolidated financial statements.

Based on the audit procedures performed, we found the Group's estimates and judgment used in the recoverability assessment of the deferred tax assets to be supported by the available evidence.

Accounting for the plant rationalisation programme

Refer to Note (8), (34) and (39) of the consolidated financial statements

The Group incurred €46.7 million of restructuring expenses and €65.4 million of asset write-downs in 2019, primarily related to the plant rationalisation programme. Reference is made to Note (34) of the financial statements. These amounts are reported as adjusted items in the Group's alternative performance measures.

In the second half of 2019, the Board of Directors approved a plant rationalisation programme resulting in the plant closure in Hagen, Germany and partial shut-down of the plant in Trieben, Austria. This resulted in restructuring and asset write down cost of €69.0 million.

In addition, restructuring and write-down expenses amounting to €20.0 million are related to the Porsgrunn plant in Norway. The declining Fused magnesia prices in the fourth quarter of 2019 resulted in a trigger to reassess the provision for onerous contracts as well as in write-down expenses of non-current assets.

Our key audit matter was focused on the recognition of the restructuring cost and the expected cost to be incurred (see Note (34) to the financial statements) as well as the accuracy of the asset write-

We performed enquiries of management and inspected the latest strategic plans and minutes of meetings of the Board of Directors. We evaluated the appropriateness of the Group's judgements regarding the preconditions of IAS 37 with regard to restructuring provisions and asset impairment in accordance with IAS 36.

We tested the mechanical accuracy of the provisions and assessed the integrity of key inputs, for example through recalculating the amounts recorded for severance based on agreed upon social plans and or other (publicly available) evidence. For the amounts recorded we reconciled the amounts calculated to the booking entries.

With regard to the asset impairments we have assessed the appropriateness of the calculations made by the company and reconciled the recorded asset write-downs to the general and sub ledger accounts. For assets to be transferred to alternative locations we validated management's assumptions based on the nature of the asset.

We assessed the completeness and accuracy of disclosures within

Key audit matter**Our audit work and observations**

downs and impairment charges. When calculating the exit costs, management has estimated future settlement and exit costs where these are not yet known.

We consider this to represent a key audit matter reflecting the level of judgement applied by management in the assumptions used to determine the extent of provisioning required and the magnitude of the recorded cost.

Valuation of goodwill and other intangible assets

Refer to Note (8), (10), (11), and (12) of the consolidated financial statements

The Group capitalised goodwill for €117.5 million, mainly related to the acquisition of Magnesita Group. In addition, the company capitalised intangible assets for €319.0 million. These assets form part of cash-generating units ('CGUs') 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 sign for impairment, the recoverable amount is assessed. Annual planning process data is used to make assumptions on the discount rates, profitability as well as growth rates, and sensitivity analyses are carried out with regard to any accounting effects. The assessment did not result in an impairment.

We identified the impairment assessment as a key audit matter due to significant estimates and assumptions about the discount rates, profitability as well as growth rates.

the financial statements in accordance with IFRSs.

Based on the audit procedures performed, we found the Group's estimates and judgement used in the accounting for the plant rationalisation programme be supported by the available evidence.

As part of our audit procedures, we have evaluated and challenged the composition of management's future cash flow forecast and process applied to identify and define cash-generating units, calculate the recoverable amount, test for impairment, calculate the capital cost rate and the growth rate as well as the calculation model.

We have reconciled the assumed future cash flows used in the budget planning with the information included in the forecast made by the directors.

With the support of our valuation specialists, we have evaluated management's assumptions such as revenue and margin, the discount rate, terminal value, operational and capital expenditure. We have obtained corroborative evidence for these assumptions. We performed analyses to assess the reasonableness of forecasted revenues, margins and expenditures in line with the level of activity forecasted and corroboration to contracted revenue for the coming years and price trends and obtained further explanations when considered necessary. We compared the long-term growth rates used in determining the terminal value with economic and industry forecasts. We have re-performed calculations, compared the methodology applied with generally accepted valuation techniques, assessed appropriateness of the cost of capital for the company and comparable assets, as well as considered territory specific factors and assessed appropriateness of disclosure of the key assumptions and sensitivities underlying the tests.

Based on the audit procedures performed, we found the assumptions to be reasonable and supported by the available evidence.

Key audit matter**Our audit work and observations****Implementation of IFRS 16, Leases**

Refer to Note (2) and (13) of the consolidated financial statements

As described in Note (2) and (13) of the consolidated financial statements the Group has adopted IFRS 16, Leases. The disclosures on the effects of initial application and reconciliations can be found in Note (2) to the Consolidated Financial Statements. As of December 31, 2019, Right-of-use assets and lease liabilities in the amount of €62.0 million were recognised by the Group.

The Group has applied the modified retrospective approach. According to this method the lease liability is measured at the present value of the remaining lease payments, discounted at using the incremental borrowing rate at initial application. The recognised amount of the right-of-use asset equals the lease liability. The Group applies several practical expedients in its implementation.

The calculation of the lease term and the incremental borrowing rates used as discount rates can be discretionary and based on estimates. In addition, extensive data from the leases must be recorded to calculate the initial effects of IFRS 16 and the development of lease liabilities and Right-of-use assets in accordance with the standard. This data is the basis for the measurement and recognition of the lease liabilities and Right-of-use assets.

As a result, we consider the adoption and implementation of IFRS 16 a key audit matter.

We performed inquiries of management to obtain an understanding of the IFRS 16 implementation process.

We have obtained a schedule of all lease contracts in the scope of IFRS 16, as identified by the Group. We evaluated the accuracy and completeness of this schedule by reconciling this to previously disclosed future lease commitments and based on our knowledge of the Group and experience of the industry in which it operates.

For a sample of selected leases, we validated whether the relevant data was recorded correctly and in full. To the extent that discretionary decisions were made regarding the lease term, we reviewed whether, in light of the market conditions and risks in the industry, the underlying assumptions are plausible and consistent with other assumptions made in the consolidated financial statements.

We compared the assumptions and parameters underlying the incremental borrowing rates with our own assumptions and publicly available data.

Furthermore, we have assessed the adequacy of the related (IFRS 16) disclosures in the financial statements.

Based on the audit procedures performed, we found no material exceptions with respect to the application of IFRS 16 and disclosures thereto.

Emphasis of matter related to the uncertainty related to the effects of the COVID-19 virus

We draw attention to Note (1) of the consolidated financial statements, the section 'going concern and the implications of the COVID-19 (Corona) virus' in which management has described the possible impact and consequences of the COVID-19 virus on the entity and the environment in which the entity operates as well as the measures taken and planned to deal with these events or circumstances. This note also indicates that uncertainties remain and that currently it is not reasonably possible to estimate the future impact. Our opinion is not modified in respect of this matter.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- the section strategic report on pages 1 to 71 of the annual report;
- the section governance, which includes the Remuneration Report on pages 74 to 120 of the annual report;
- the other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the procedures performed as set out below, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information that is required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of such procedures was substantially less than the scope of those performed in our audit of the financial statements.

The directors are responsible for the preparation of the other information, including the directors' report and the other information in accordance with Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Our appointment

We were appointed as auditors of RHI Magnesita N.V. by the audit committee of the board of directors following the passing of a resolution by the shareholders at the annual meeting held on 4 October 2017. Our appointment has been renewed annually by shareholders representing a total period of uninterrupted engagement appointment of 3 years.

No prohibited non-audit services

To the best of our knowledge and belief, we have not provided prohibited non-audit services as referred to in Article 5(1) of the European Regulation on specific requirements regarding statutory audit of public-interest entities.

Services rendered

The services, in addition to the audit, that we have provided to the Company and its controlled entities, for the period to which

our statutory audit relates, are disclosed in Note (60) to the financial statements.

Responsibilities for the financial statements and the audit

Responsibilities of executive directors and board of directors for the financial statements

Executive directors are responsible for:

- the preparation and fair presentation of the financial statements in accordance with EU-IFRS and with Part 9 of Book 2 of the Dutch Civil Code; and for
- such internal control as executive directors determine is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, executive directors are responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, executive directors should prepare the financial statements using the going-concern basis of accounting unless executive directors either intend to liquidate the Company or to cease operations, or has no realistic alternative but to do so. Executive directors should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The board of directors is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion. Our objectives are to obtain reasonable assurance about whether the 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 but not absolute level of assurance, which makes it possible that we may not detect all material misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Amsterdam, 31 March 2020

PricewaterhouseCoopers Accountants N.V.

Original has been signed by E.M.W.H. van der Vleuten RA MSc

Appendix to our auditor's report on the financial statements 2019 of RHI Magnesita N.V.

In addition to what is included in our auditor's report, we have further set out in this appendix our responsibilities for the audit of the financial statements and explained what an audit involves.

The auditor's responsibilities for the audit of the financial statements

We have exercised professional judgement and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining 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 Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by executive directors.
- Concluding on the appropriateness of executive directors' use of the going-concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the Company'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 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 and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the consolidated financial statements, we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the Group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the Group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the Group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the audit committee of the board of directors 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. In this respect, we also issue an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the audit committee of the board of directors with a statement that we have complied with 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 of the board of directors, we determine those matters that were of most significance in the audit of the 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, not communicating the matter is in the public interest.

Alternative performance measures (“APMs”)

APMs used by the Group are reviewed below to provide a definition from each non-IFRS APM to its IFRS equivalent, and to explain the purpose and usefulness of each APM.

In general, APMs are presented externally to meet investors' requirements for further clarity and transparency of the Group's underlying financial performance. The APMs are also used internally in the management of our business performance, budgeting and forecasting.

APMs are non-IFRS measures. As a result, APMs allow investors and other readers to review different kinds of revenue, profits and costs and should not be used in isolation. Commentary within the Half Year Results, including the Financial Review, as well as the Consolidated Financial Statements and the accompanying notes, should be referred to in order to fully appreciate all the factors that affect our business. We strongly encourage readers not to rely on any single financial measure, but to carefully review our reporting in its entirety.

Adjusted pro-forma results at a constant currency

Adjusted and Adjusted results at constant currency The H1 2018 Adjusted results are, where appropriate, adjusted to reflect the purchase price allocation (“PPA”) related to the acquisition of Magnesita and other adjustments. This measure provides an estimation of the historical financial performance of the current Group structure. H1 2018 figures presented at constant currency represent H1 2018 reported figures translated at average H1 2019 exchange rates.

EBITA

EBIT, as presented in Consolidated Statement of Profit and Loss, excluding amortisation and impairments.

EBITDA

EBIT, as presented in Consolidated Statement of Profit and Loss, excluding depreciation, amortisation and impairments.

Adjusted EBITDA and EBITA

To provide further transparency and clarity to the ongoing, underlying financial performance of the Group, adjusted EBITDA and EBITA are used. Both measures exclude other in-

come and expenses as presented in Consolidated Statement of Profit and Loss.

Adjusted earnings per share (“EPS”)

Adjusted EPS is used to assess the Company's operational performance per ordinary share outstanding. It is calculated using adjusted EBITA (as described above) and removes the impact of certain foreign exchange effects, amortisation, one-off restructuring expenses and impairments, other non-cash financial income and expenses, that are not directly related to operational performance. Effective tax rate for adjusted EPS is calculated by applying the effective tax rate normalised for restructuring expenses and impairments.

Operating cash flow and free cash flow

Alternative measures for cash flow are presented to reflect net cash inflow from operating activities before certain items. Free cash flow is considered relevant to reflect the cash performance of business operations after meeting the usual obligations of financing and tax. It is therefore measured before all other remaining cash flows, being those related to acquisitions and disposals, other equity-related and debt-related funding movements, and foreign exchange impacts on financing and investing activities.

Working capital

Working capital and intensity provides a measure how efficient the Company is in managing operating cash conversion cycles. Working capital is the sum of manageable working capital, composed of inventories, trade receivables and trade payables and other receivables and payables. Working capital intensity is measured as a percentage of last three months annualised revenue.

Net debt

We present an alternative measure to bring together the various funding sources that are included in the Consolidated Balance Sheet and the accompanying notes. Net debt is a measure defined in the Group's principal financing arrangements and reflects the net indebtedness of the Group and includes all cash, cash equivalents and marketable securities; and any debt or debt-like items.

Shareholder information

RHI Magnesita N.V. is a public company with limited liability under Dutch law and was incorporated on 20 June 2017. It has its corporate seat in Arnhem, the Netherlands, its administrative seat in Vienna, Austria and its registered office at Kranichberggasse 6, 1120 Vienna, Austria.

The telephone number of the Issuer is +43 50 2136200.

The shares of RHI Magnesita N.V. are listed on the Premium Segment of the Official List on the Main Market of the London Stock Exchange.

Ticker symbol: RHIM
ISIN Code: NL0012650360

Investor information

The Company's website www.rhimagnesita.com provides information for shareholder and should be the first port of call for general queries. The investors section contains details on the current and historical share price, Annual and Interim Reports, analyst presentations, shareholder meetings as well as a 'Shareholders FAQ' section.

You can also subscribe to an email alert service to automatically receive an email when significant announcements are made.

Shareholding information

Please contact our Registrar, Computershare, for all administrative enquiries about your shareholding, such as the loss of a share certificate, dividend payments, or a change of address:

Computershare Investor Services PLC
The Pavilions,
Bridgwater Road
Bristol BS99 6ZZ
United Kingdom

Website: <https://www-uk.computershare.com>
T: +44 (0) 370 707 1402

Financial calendar

Q1 Trading Update	May 2020
Annual General Meeting	18 June 2020
Half Year Results	August 2020
Q3 Trading Update	November 2020

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